



## Australian Climate Change Authority 2024 Issues Paper – Consultation

The Environment Institute of Australia and New Zealand (EIANZ) is the peak body for environmental professionals in Australia and Aotearoa New Zealand. Through its Code of Ethics and Professional Conduct, EIANZ sets high ethical standards for environmental practitioners. The specific interests and skills base of EIANZ lies in evidence-based and ethical environmental practice.

EIANZ’s Climate Change Special Interest Section prepared the following submission in response to the federal Climate Change Authority’s 2024 Issues Paper, *Targets, Pathways and Progress*. The submission contains expert opinions of Certified Environmental Practitioners with extensive experience in climate change-related fields.

### General Comments

When advising the Australian Government on Australia’s transition to a net zero economy and its 2035 emissions reduction targets, the Climate Change Authority (CCA) should account for:

- The unique strengths Australia has in relation to the transition (wind, sunshine and critical minerals), which should be utilised to achieve rapid emissions reductions.
- The reality that different sectors will be able to decarbonise at different rates, making sector-specific approaches within a broader economy-wide goal necessary.
- The loss and damage that our Pacific neighbours are facing as a result of climate change.
- Our ability to influence, collaborate and lead by example when it comes to international trading partners and the global community in general.

Australia must phase out the use of fossil fuels well before 2050. This should commence with an immediate prohibition on development of new fossil fuel reserves or fossil fuel-based electricity generation, for local use or for international supply.

The Australian Government should consider reintroducing a price on carbon, so that market processes can play a key role in achieving net zero by at least 2050 (or earlier).

## Responses to Issues Paper Questions

*How should the authority take account of climate science and Australia's international obligations in considering possible emissions reductions targets for 2035?*

Australia must, as a minimum, deliver on its commitments under international agreements.

International obligations are generally established by United Nations Framework Convention on Climate Change Convention of Parties resolutions and are based on the extensively deliberated reports produced by the Intergovernmental Panel on Climate Change (IPCC). They are rigorously justified, but not necessarily up to date. Therefore, international obligations represent only a baseline for emissions reduction targets.

As climate science is evolving more rapidly than international agreements, Australia should anticipate that emission targets will need tightening to keep the global temperature rise as close as possible to 1.5°C. For example, the available global emissions budget is now smaller than reported in the sixth IPCC assessment cycle, meaning global net zero needs to be achieved earlier than previously thought and, consequently, stronger action on emissions reduction is required. The CCA should base targets on the most up-to-date reliable science and recognise the reliability but lagging nature of IPCC reports.

*How should the authority weight the goals of ambition and achievability in considering possible emissions reductions targets for 2035?*

The discussion of ambition versus achievability on page 10 of the Issues Paper is logical and provides a sensible guide for an emissions reduction target recommendation. However, it is essential to recognise that a strong Australian economy will offer inadequate comfort in the presence of severe climate-related ecological and human impacts. Global achievement of emissions reductions that successfully limit warming is therefore the most important objective, and Australia needs to consider and plan for scenarios that require even more ambitious targets.

Practical achievability is important. However, achievability will in part be defined by the degree of climate ambition sought. Consequently, climate 'ambition' needs to be given higher priority in setting targets than today's perception of achievability. If the community accepts and believes in climate ambition, many obstacles to achievement will fall away.

The ambition must be to reduce emissions so that global warming can be limited to as close to 1.5°C as possible. Like putting a human on the moon, we don't know what is achievable until we commit to something very ambitious. Unlike putting a human on the moon, however, the consequences of failure to adequately address climate change are widespread and severe.

Australia should increase its efforts in international diplomacy to encourage and help other nations achieve ambitious emissions reductions. This will make our own targets easier to achieve and help to reduce global emissions overall. One approach to international diplomacy is to share what we are learning through the transition of our fossil fuel reliant communities to a net zero economy.

*How can Australia further support other countries to decarbonise and develop sustainably?*

Australia can further support global decarbonisation and sustainable development through a multifaceted approach that involves:

**Leading by example:** Australia is well positioned to influence the energy landscape by promoting the economic, strategic, and energy security benefits of clean energy, especially

within the Indo-Pacific region. Committing to a strong Nationally Determined Contribution and a significant renewable energy capacity increase domestically can serve as a model and catalyst for similar investments in the region. Signaling our intent to cease fossil fuel exports by a particular date would also stimulate a faster transition in those economies that currently utilise Australia's significant fossil fuel exports. Collaborative partnerships with countries like Germany, India, and Japan in renewable energy projects, such as the development of a global renewable hydrogen industry, can serve as a model for global cooperation.

**Capacity building and knowledge sharing:** By leveraging our advancements in renewable energy technologies, Australia can share knowledge and innovations with other countries. Collaborative international research and development projects could be instrumental, as could cooperation with international trading partners to decarbonise supply chains.

Australia should work within the governance framework of programs such as the Secretariat of the Pacific Regional Environment Program (SPREP) rather than 'reinventing the wheel'. We should also broaden our engagement with Pacific nations. Our climate ambitions should recognise the threats faced by Pacific nations and we should work in partnership on a range of actions addressing climate resilience, technology transfer, skills development and training.

**Advocacy and policy guidance:** Australia's commitment to reducing greenhouse gas emissions and its whole-of-government approach to net zero should serve as a robust framework for other nations to adopt, adapt and implement. Australia should also develop a dedicated clean energy diplomacy program through the Department of Foreign Affairs and Trade.

**Financial support:** Australia's commitment to international climate finance, including contributions to the Pacific Resilience Facility and the Green Climate Fund Australia, could be substantially increased if Australia took just 1% of the fossil fuel subsidies it currently provides (mainly through the diesel fuel rebate scheme) and allocated that funding to help our Pacific neighbours.

**International Trade:** Australia can use our unique strengths in renewable energy, space, earth resources and education to research, develop, and export transportable net zero fuels. For a successful transition, we must intelligently anticipate and plan for trade-based requirements for low-emissions goods and services.

#### *What technologies are important for each sector's pathway to net zero and why?*

EIANZ recommends referring to the expertise of the Commonwealth Scientific and Industrial Research Organisation (CSIRO), universities and technology firms to provide information on technology.

As a general rule, governments should let the market drive technology uptake, within policy 'guardrails'. For example, tried and tested technologies should be left to the private sector, but there is a place for governments to foster pilot projects based on emerging technologies, prior to commercial roll out.

There are many technologies across various sectors which are at different stages of technical feasibility, economic viability and commercialisation. Research and development into many of these (such as sustainable aviation fuels, carbon capture and storage and carbon capture and utilisation) should of course continue, but the urgency of the situation presented by global climate change means that technologies which are proven and ready to go need to be deployed immediately, and at scale.

Addressing each emissions sector separately, the primary focus should be as follows:

**Electricity and Energy:** Renewable energy technologies like solar, wind, and hydroelectric power are crucial. Energy storage technologies, such as batteries and pumped hydro storage, are also important to manage the intermittent nature of renewable energy sources. Use of peaking gas should not be used as an excuse to delay mitigation.

Electricity system security is important for most sectors' net zero pathways. Electricity market bodies and transmission network service providers have a very big role to play in achieving electricity system security, but they should not be entirely responsible, as suggested in the Issues Paper. Electricity system security is of such importance that it must be the responsibility of the government to provide the overarching direction to ensure and assure it.

**Built Environment:** Energy avoidance is crucial and often overlooked. For example, energy efficient all-electric technologies will reduce energy consumption in buildings. Grid integration needs to increase (e.g vehicle to grid capabilities etc) to reduce demand. Green building materials design and operation should become mandatory.

**Transport:** Electric vehicles and hydrogen fuel cell vehicles should replace conventional internal combustion engine vehicles. Significant investment in efficient and effective public transport is also crucial. Research and development for sustainable aviation fuels, and green ammonia as an option for shipping should continue.

**Industry and Waste:** Primary aluminium production is energy intensive, so secondary production (recycling) needs promotion. Green hydrogen technologies can reduce emissions from industrial processes producing, steel, iron, lime and ammonia. Diversion of all organic and electronic wastes from landfill is piecemeal and needs to be mandated.

**Resources:** Coal mine fugitive emissions are significant and rapid cessation of coal mining is preferable. In the rest of the mining sector, electrification of equipment and processes backed by the use of renewable energy sources will reduce emissions.

**Agriculture and Land:** Options exist or are in development for emission reductions in these sectors including feed supplements to reduce enteric fermentation; a shift towards a feedlot style farming practice that allows for less land to be utilised and better manure management; precision agriculture technologies; production of green ammonia; and cessation of clearing and strategic reforestation are clear winners.

*How can governments use mandates, rules, and standards to accelerate Australia's decarbonisation? Is more planning by governments needed? If so, how should this be coordinated and how can this be done while making the transition inclusive, adaptive, and innovative?*

The Australian Government should prohibit approval of new developments of fossil fuel resources. This is in recognition of the IPCC's sixth assessment report's finding that estimates future CO<sub>2</sub> emissions from existing fossil fuel infrastructures already exceed the remaining carbon budget of 1.5 °C (as estimated in 2023).

The Australian Government should introduce a price on carbon so that the market delivers emissions reductions. Subsidies and government interventions may be socially more achievable, but still involve the same costs. Work is required to communicate to the community there is no 'no-cost' solution to climate action, the challenge is to find the most effective cost. The inverse to this is the cost of failing to rapidly reduce emissions – even today we are paying for climate-related disasters through direct government support, increased

insurance premiums, lost economic production and ecological and human impacts. Industry will act more effectively if it can see that policy is widely supported.

Ideally, where the marketplace is the best way to deliver decarbonisation, the government should set the overall objectives and requirements, then let the market work. The broader the objectives and requirements that are set, the broader the suite of solutions that are available.

We must improve our ability to address anticipated barriers to decarbonisation prior to them causing delays. For example, slow approval times for renewables projects and associated transmission lines have been anticipated for some time, yet all levels of government have so far failed to effectively address the issue.

#### *Enabling an inclusive transition*

Government intervention can enable an inclusive, adaptive and innovative transition by engaging the communities that will be directly impacted by the transition. Some of the most significant impacts will be in regional areas and the levels of interest and knowledge in regional communities is easily underestimated. Consultation with these communities would facilitate inclusivity and provide a pathway for innovative, local ideas that are informed by deep understanding of the impacted community.

Governments should implement programs to retrain fossil fuel workers for renewable energy development. Barriers to this transition need proper investigation and practical solutions.

Rules relating to development approvals must be refined to reduce the time taken to achieve approval for mature technologies (e.g., wind farms), whilst maintaining appropriate community engagement and acknowledging that renewable energy doesn't automatically trump other environmental values.

How can governments stimulate private finance needed for the net zero transition – are there innovative instruments that could be deployed or new business models that governments could support? Is there a bigger role for governments to play in coordinating the investment needed to transition the economy?

The best way to stimulate private finance is to set clear, widely accepted rules, then let the markets work. Where there are market failures, e.g., in research and development, and natural monopolies, there is a role for government and new business models.

The Government could implement tax incentives for businesses that implement emissions reductions that exceed national targets. Alternatively, tax concessions could be applied to specific regions that are earmarked for decarbonisation investment.

The Government should also:

- Implement a process to keep private industry informed of climate-related changes occurring amongst our international trading partners.
- Reconsider the Local Power Plan introduced to parliament as a Private Members Bill by Dr Helen Haines MP (Member for Indi) in February 2021.

*What further actions can be taken by governments (e.g. through public funding), the private sector and households to accelerate emissions reductions, including in relation to the deployment of technologies and access to new opportunities in the transition to net zero? What barriers stand in the way and how could they be overcome?*

Australia should offer a vision of a net zero society that appeals to people to build greater support for emissions reductions. Politicians will have to lead on this.

Governments also need to invest heavily in the training and skills sector to ensure that the workforce has the capabilities and capacity required to implement an ambitious emissions reduction program. Migration programs should be adjusted to attract immigrants with the appropriate skills and training. TAFE needs an injection of capital from both government and business to develop relevant industry skills and capabilities.

*How should governments decide upon the appropriate allocation of resources towards reducing emissions, removing carbon from the atmosphere, and adapting to climate change impacts?*

Reducing emissions and removing carbon from the atmosphere are two sides of the same coin – and as a starting point the relative costs of the two should help decide resource allocation. On top of this, reducing emissions should be prioritised – because not generating emissions in the first place is the simpler solution and, once implemented, is 100% effective.

Adaptation is different. A well-considered and funded national adaptation plan is required (refer to the EIANZ submission on the National Adaptation Plan, April 2024, attached). Difficult decisions will be required, as will careful communication of the risks, actions, impacts and costs (including the costs of disaster recovery).

Decisions relating to allocation of resources must also be informed by proper recognition of economic inequality and its impact on the ability of communities to participate in the transition. Governments should actively support low-income households to reduce their emissions.

*How can governments, businesses and people, including First Nations people, help ensure the benefits and burdens of the net zero transition are equitably shared?*

Australia has succeeded in nation-building projects and war-effort-scale projects before – we can do this again. The Government needs to show strong signals of the objectives and operating parameters of the transition, then consult effectively to understand where and on whom the benefits and burdens impinge. Regulation, rule-setting and enforcement should be applied where signals are not effective.

Governments should support community-led responses to climate change and engage with communities to develop local strategies. Governments should support and facilitate the benefits of the transition flowing to communities, including First Nations peoples, through facilitating employment opportunities in sustainable infrastructure projects and economic development and empowerment opportunities, for example through renewable energy and soil carbon projects. These projects need to be driven by the communities themselves with economic and social benefits retained by these communities. Governments can assist by providing communities with the information and support required to identify, design and implement these projects.

*How can governments better ensure First Nations people are empowered to play a leading role in the development and implementation of climate change policies and actions, including as they relate to the ongoing curation of the Indigenous estate?*

The first step should be giving First Nations peoples a forum for climate change-related issues and listening to that forum, followed by appropriate resourcing. First Nations communities must be supported to participate fully in the identification, development, and implementation of mitigation and adaptation projects.

Governments should seek to genuinely involve First Nations peoples in the earliest policy development stages. Where First Nations representative groups have already developed climate change strategies/policies and other related advice (of which there are some examples including the Dja Dja Wurrung Climate Change Strategy and related policies), governments should seek their implementation.

The Government also needs to recognise that renewables occupy a lot of land that is of great importance to First Nations peoples and, consequently, appropriate engagement is essential.

*How can Australian governments support the wellbeing of workers, communities and regions as the nation decarbonises, including in relation to cost of living, workforce and industry transition and access to low emissions technologies and services?*

Australia has successfully implemented structural reform before. We should not be afraid to tackle this challenge.

We should take lessons from previous transition experiences, e.g., native forest logging or industrial plant closures, to understand what worked and what didn't. A good example is the closure of the steelworks in Newcastle. A further example would be the transition impacts on communities affected by technology changes or even communities affected by transport changes such as highway bypasses. The climate change transition is a significant scale-up, but lessons from these are also capable of up-scaling.

*How can governments help Australians prepare for and respond to the impacts of climate change?*

We must start with information, openness and honesty. To borrow a phrase from Ken Henry (former Secretary of the Department of Treasury): "go hard, go early, go households".

Governments should:

- Offer an appealing vision of a net zero future. Large swathes of society don't want to hear about climate change because the truth is upsetting and too hard to solve.
- Be clear about the likely increase in frequency of floods, fires, droughts and storms. Provide advice on lower risk locations to live, more resilient house design, and emergency planning and preparation.
- Encourage people to get involved with local action to address climate change. This helps to reduce climate anxiety and motivates people to do more in their own lives to reduce emissions, as well as improving access to information on what they can do.

*What else should the authority be considering in its advice to government?*

Action on climate change has been inhibited by over a decade of "climate wars". We now need a National Climate Change Cabinet, with representatives from all levels of government, that seeks to deliver a national implementation plan towards ambitious climate targets.

Population growth needs to be considered and addressed. We cannot detach population growth from growth in emissions.

We also need to achieve net zero emissions for international shipping – see EIANZ’s Supplemental Position Statement on Scope 3 Emissions attached.



# SCOPE 3 EMBEDDED EMISSIONS

## EIANZ Climate Change Supplemental Position Statement

November 2023

### Summary

Addressing climate change requires work across international affairs, domestic mitigation, adaptation, and disaster recovery, with close attention to supporting the most impacted people and ecosystems.

This paper supports the EIANZ Climate Change position statement (2022) by giving further attention to Scope 3 greenhouse gas (GHG) emissions.

In relation to Scope 3 emissions, the EIANZ:

- i. Recognises that Scope 3 emissions are a major contributor to global emissions and a source of domestic economic risk for Australia and Aotearoa New Zealand.
- ii. Considers it important for governments, companies and other organisations to understand, report and reduce their Scope 3 emissions.
- iii. Calls on Australia and Aotearoa New Zealand to report and reduce Scope 3 emissions, through implementing domestic policies and programs, whilst recognising that the Paris Agreement does not require countries to specifically address Scope 3 emissions.
- iv. Considers that governments should work with organisations and trading partners on meaningful accounting, reporting, target setting, and strategy development and implementation.
- v. Recognises the complexity of Scope 3 emissions accounting and mitigation.

In addition, the EIANZ considers that specific actions should be undertaken in the near term that focus on reporting and reducing emissions embedded in internationally traded goods and services, particularly given the volumes of estimated GHG emissions from these sources in Australia and Aotearoa New Zealand.

### Background

Under the UNFCCC and the IPCC, Scope 3 emissions have not been a primary focus. While there have been some bilateral and multilateral studies into mitigation pathways for major traded goods (e.g. steel, aluminium, and cement production), and Europe is instigating a carbon

border adjustment mechanism, the EIANZ considers that more action is needed.

While the following recommended approaches are generally relevant to all Scope 3 emissions, the EIANZ considers that there should be a specific focus on the emissions embedded in internationally traded goods and services, particularly given the volumes of estimated GHG emissions from these sources in Australia and Aotearoa New Zealand.

### Role of Decision Makers

- **National Scope 3 Accounting** – Australian and Aotearoa New Zealand governments should prepare annual Scope 3 emissions inventories by sector to inform management of national import and export risks and opportunities as the world transitions to net zero. These should be staged to firstly capture the largest Scope 3 sources and then eventually to cover all sources.
- **National Scope 3 Targets and Mitigation Strategies** – Governments should set Scope 3 emissions targets, implement strategies to achieve them, and report on progress. Scope 3 targets must be consistent with Paris Goals, the remaining GHG budget, and domestic emission reduction targets.
- **Corporate Scope 3 Reporting** – Government-mandated corporate GHG reporting schemes should be expanded to include Scope 3 emissions for current reporting entities and for other entities with Scope 3 emissions greater than current direct emissions reporting thresholds.
- **Environmental Impact Assessments** – Scope 3 emissions should be included in the assessments of potential impacts of new and expanded projects. New developments should demonstrate that predicted Scope 3 emissions are consistent with the Paris goal of limiting global warming to 1.5°C and apply a precautionary approach to likely actions by other organisations and governments.
- **Socio-economic Studies** – Governments should disclose, under a range of global scenarios, national environmental, economic, and social risks associated with the nation's Scope 3 emissions, and the pathways to reduce adverse risks.
- **Commence taking action** – Governments and companies should immediately start to build understanding, capability and capacity through incentives to those that are already willing, and in priority areas (e.g.

new green materials and fossil fuel trade), whilst making it clear that those that delay will bear higher risks and costs.

- **Smart and Just Transition** – Governments should help the most vulnerable and adversely impacted as regions decarbonise. They should promote investment in low emission export activities that can substitute for loss of carbon intensive exports, to enable developing economies to have low Scope 3 emissions profiles in the future.
- **Shared Accountabilities** – Governments should work internationally and with Scope 3 supplier- and customer-countries to advance low emissions technology development and implementation, whilst avoiding carbon leakage, economic disruption, or bureaucratic delay.
- **Transparency** – Governments should use clear and internationally recognised protocols for calculating and disclosing Scope 3 emissions, reduction strategies, and actual mitigations. Disclosed information should be readily accessible to consumers for informed decision-making. Sanctions will be needed to drive real emissions mitigation and manage willfully misleading or materially inaccurate national or individual entity disclosures.

## Role of EIANZ

- **Membership Engagement** – The EIANZ will promote understanding and refinement of our message and recommendations and support practical implementation by environmental practitioners.
- **External Engagement** – The EIANZ will continue to collaborate with governments and like-minded organisations.

## Differences between Scope 1 & 3 reporting:

- **Materiality** – Only some types of upstream and downstream emission categories need to be reported e.g. where they: are large relative to the organisation's Scope 1 & 2 emissions; contribute to the organisation's GHG risk exposure; are deemed critical by key stakeholder (e.g. customers, suppliers, investors, or civil society); and can be reduced by actions undertaken or influenced by the organisation.
- **Overlap with others** – Two or more entities may report the same Scope 3 emission sources – where they share responsibility and /or exposure.
- **Interorganisation comparisons** – These can be difficult where companies are in different sectors or have their emissions predominantly in different reporting categories.
- **Non-additivity** – Companies have different levels

of influence across the 15 reporting categories. The value of Scope 3 reporting is in the strategic insights gained rather than the number derived from simple summation of the emissions from each category. There can often be double counting within a Scope 3 inventory – e.g. the emissions from two products sold may overlap in their estimated emissions, or overlap with upstream emission sources.

## Concluding comments

National reporting of emissions embedded in traded goods is not a substitute for current national reporting arrangements under the Kyoto Protocol or the Paris Accord. It will come into more focus as countries / regions address issues of carbon leakage to places with lesser emissions controls.

## Estimation of Emissions in Traded Goods and Services

### Introduction

This summary sheet sets out what is known about the emissions embedded in Aotearoa New Zealand's and Australia's traded goods and services. These facts are provided to support EIANZ's related position.

### Summary

- Government estimates of emissions embedded in Aotearoa New Zealand's imports are published. No comparable estimates have been found for Australia's import commodities. For Aotearoa New Zealand, these represent half of national emissions.
- Australia's three largest exported (mineral and energy) commodities have large carbon intensities and emissions footprints that represent 50%-250% of the national emissions inventory. Australia should be planning for leading in the inevitable adjustments as the world progresses to net zero emissions.
- Aotearoa New Zealand's main exports are not as Scope 3 emissions intense as Australia's.
- Much more analysis is necessary in order to properly understand and manage these Scope 3 emissions.

### Aotearoa New Zealand

For the year ended March 2023, Aotearoa New Zealand's [GDP](#) was NZ\$385 billion. In 2022, exports (US\$44bn) and imports (US\$54) were roughly one-fifth of GDP.

Aotearoa New Zealand's 2021 net emissions were 55.7Mt CO<sub>2</sub>-e - 3% less than the 57.2 Mt CO<sub>2</sub>-e of emissions in 2005. Aotearoa New Zealand's Nationally Determined [Contribution](#) (NDC1) under the Paris Agreement is to reduce net GHG emissions to 50% below gross 2005 levels by 2030.

[Exports](#) – Eight of the top 10 export commodities are primary products or processed primary products. All of them are expected to have relatively low Scope 3 downstream emissions intensities.

Commodity	US\$ billion	Per cent
Dairy, eggs, honey	13.4	30.4
Meat	6.3	14.3
Wood	3.3	7.6
Fruits, nuts	2.4	5.6
Beverages, spirits, vinegar	1.6	3.7
Modified Starches, glues	1.6	3.6
Cereal/milk preparations	1.6	3.5
Fish	1.2	2.6
Machinery	1.1	2.6
Aluminium	1.1	2.4
Other	11	23.7
<b>Total</b>	<b>44</b>	<b>100</b>

[Imports](#) – Machinery and equipment, vehicles, fuels, and pharmaceuticals are Aotearoa New Zealand's largest 2022 import items. There are 30.7 Mt CO<sub>2</sub>-e emissions associated with 2019 [imports](#) – equivalent to 51% of NZ's carbon footprint in that year. Seventy-six per cent and 8% of these emissions respectively were "manufacturing" and "transport" related.

Commodity	US\$ billion	Per cent
Machinery incl computers	7.3	13.4
Vehicles	7.2	13.2
Mineral fuels	6.2	11.5
Electrical machinery, equipment	4.7	8.6
Plastics	2.0	3.7
Optical, technical, medical	1.7	3.1
Pharmaceuticals	1.7	3.1
Food industry waste, fodder	1.3	2.3
Articles of iron or steel	1.2	2.2
Furniture, bedding, lighting, sign	1.1	2.0
Other	20	36.9
<b>Total</b>	<b>54</b>	<b>100</b>

### Australia

No definitive publication has been identified that details Australia's Scope 3 emissions.

For the year ended March 2023, Australia's GDP was [A\\$2.2 trillion](#) – placing it, in size, in the low teens globally. The economy is open to both imports and exports and in the year ended June 2022 both were valued at around \$A0.5 trillion (roughly one-quarter of GDP).

[Exports](#) – The three most valuable exports (iron ore, coal [both metallurgical and thermal] and natural gas) have high Scope 3 emissions intensities (i.e. emissions per \$M revenue). The remaining seven of the top 10 exports were mineral, energy, agriculture, or education related. Aluminium metal production is also emissions intensive.

The Australian economy, certain regions and society in general, would be much poorer without the export revenue from these export items.

Australia's Top 10 Exports (2021-22)		
Commodity	\$A billion	Per cent
Iron ore & concentrates	132	22.3
Coal	114	19.1
Natural gas	71	11.9
Gold	23	3.9
Education-related travel services	21	3.5
Crude petroleum	14	2.3
Wheat	11	1.9
Aluminium ores & conc (incl. alumina)	10	1.7
Beef	10	1.7
Copper ores & concentrates	8	1.3
Other	182	30.5
<b>Total</b>	<b>595</b>	<b>100</b>

**Imports** - The top 10 imported items include: petroleum products, vehicles, technology equipment, pharmaceutical items, and professional services. No quantitative estimate of their upstream emissions has been carried out. Several of the commodities could have embodied emissions in the low tens of Mt CO<sub>2</sub>-e and there are similarities with Aotearoa New Zealand in the types of commodities imported.

Apart from the refined petroleum products, each of these imports contain appreciable non-energy intensive value-add in their production and hence will be not as emissions intensive as the top three export commodities. Emissions associated with petroleum refining will be a fraction of that at the final point of use.

Australia's Top 10 Imports (2021-22)		
Commodity	\$A billion	Per cent
Refined petroleum	40	8.7
Passenger motor vehicles	23	5.1
Freight	23	5.0
Telecom equipment & parts	16	3.4
Goods vehicles	13	2.8
Computers	12	2.7
Professional services	11	2.4
Pharm products (excl. medicaments)	9	2.1
Medicaments (incl veterinary)	9	1.9
Crude petroleum	8	1.8
Other	295	64.2
<b>Total</b>	<b>460</b>	<b>100</b>

**Size relative to domestic emissions** – The combined Scope 3 emissions associated with Australia's main exports are 2 – 3 times Australia's [domestic](#) emissions.

The Scope 3 emissions from the use of exported [coal](#) and the processing exported [iron ores](#) (assume 62% iron in the ore) both significantly exceed

Australia's domestic emissions. These two emission sources cannot be added as metallurgical coal is used in steelmaking and effectively is the source of steelmaking emissions. The quantity of metallurgical coal exported from Australia is insufficient to smelt all of Australia's iron ore exports.

Emissions from use of liquified natural gas ([LNG](#)) are equivalent to around half of Australia's national emissions, whereas those from the production of [aluminium](#) from bauxite and [alumina](#) are dependent upon the source of electricity used in the smelting process, and the quoted figure could rise to 200Mt CO<sub>2</sub>-e if the electricity is fossil fuel derived.

**Changes since 2005** - The physical amounts of these exports have all increased since 2005, which is the base year for Australia's domestic emissions [targets](#) under the UNFCCC Paris accord (i.e. 43% reduction by 2030 and 100% by 2050).

### Economic and greenhouse gas contributions and growth of key Australian exports

	Iron Ore	Coal total	LNG	Al - feed
Export Revenue (\$bn)	132	114	71	10
MTonnes Exported	874	359	83	18
Per Cent commodity growth (from 2005);	283%	54%	686%	116%
Downstream Emissions (Mt CO <sub>2</sub> -e)	1200	880	230	40
Downstream Emissions Relative to 2022 National Emissions	250%	180%	50%	10%

#### NOTES:

**Coal total** = Thermal + Metallurgical coal exports. In 2022 47% of exported coal was metallurgical coal. Assume carbon content for bituminous coal (0.663 t C/t fuel). DISR (2021) National Greenhouse Account Factors.

**Al feed** = approximation of the amount of aluminium made from bauxite and alumina exports - viz ~ 2 tonnes of bauxite is needed to produce 1 tonne of alumina and 2 tonnes of alumina is required to produce one tonne of aluminium metal

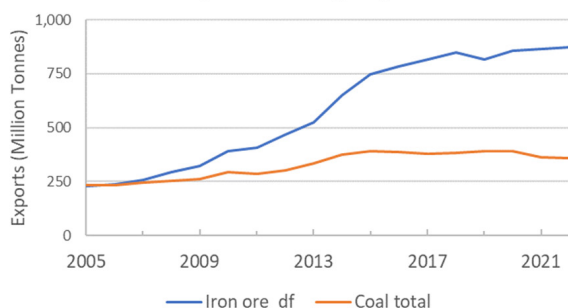
**Emissions from processing of exported Al-feed** is dependent upon emissions intensity of electricity used in smelting. This figure assumes 1.2t CO<sub>2</sub>-e/t alumina and 1.7 t CO<sub>2</sub>-e from anode use and PFC emissions during smelting. Emissions associated with smelter electricity consumption are excluded but can be quite high depending upon country of location.

**Percent commodity growth (from 2005)** - growth in physical exports since 2005 (the base-year for Australia's greenhouse gas emissions targets). For comparison of the same period Australia reduced its emissions by 22% (to 487Mt CO<sub>2</sub>-e) and has committed to a 46% per cent reduction by 2030 and net zero by 2050.

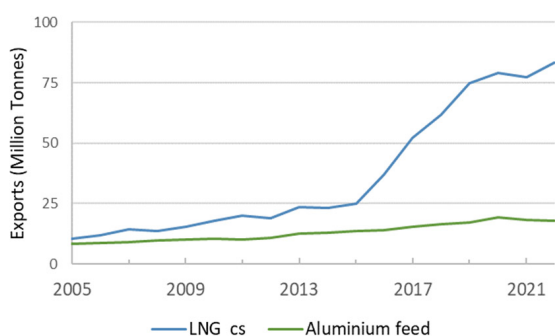
The emissions in traded goods and services are not included in Australia's Nationally Determined Contribution, so in this regard Australia is not in breach of international undertakings. However, as

the world works to the Paris Accord goal of net zero, Australia and its subregions will likely have to accommodate large changes in the markets for each of these commodities.

**Australian Exports of Iron Ore and Coal (thermal plus metallurgical)**



**Australian Exports of LNG and Aluminium Feed**



## Concluding comments

There are plausible decarbonisation pathways for steelmaking, using hydrogen and electrification, and for aluminium production, using zero emissions electricity and inert anodes.

The only approach currently suggested for decarbonisation of fossil fuels is carbon capture and storage (CCS). CCS remains under-performing, expensive, socially contested, and dependent upon local geology and cannot be relied upon.

Some coal types are less emissions intensive than others (e.g. they have lower moisture content). Even so, relative to the need to achieve net zero by 2050 or earlier, there must be rapid phase-out of coal use, irrespective of differences in coal qualities.

The Environment Institute of Australia and New Zealand (EIANZ) is a not for profit, professional association for environmental practitioners from across Australia and Aotearoa New Zealand. The EIANZ has a certification scheme that recognises ethical and professional practice which assures government, industry, and the community of practitioners' professional standing. EIANZ is represented by jurisdictional Divisions, a New Zealand Chapter and supported by Special Interest Sections covering climate change, heritage, ecology, environmental accounting, and impact assessment. Its membership is drawn from all areas of environmental practice, and includes practitioners with industry, government, community, and academic careers.

11 April 2024

National Adaptation Policy Office – Climate Adaption Policy  
Department of Climate Change, Energy, the Environment and Water



Environment Institute  
of Australia and  
New Zealand Inc.

To Whom It May Concern,

Thank you for the opportunity for The Environment Institute of Australia and New Zealand (EIANZ) to make a submission on the National Adaptation Plan Issues Paper.

EIANZ is the peak body for environmental professionals in Australia and Aotearoa New Zealand. Our membership spans a diverse range of technical professions including scientists, policy makers, engineers, lawyers and economists. We advocate for environmental knowledge and evidence-based practice and set high ethical standards for environmental practitioners through our Code of Ethics and Professional Conduct.

The following submission has been prepared by EIANZ's Climate Change Special Interest Section and endorsed by the EIANZ Board. The submission brings together expert opinions of Certified Environmental Practitioners with extensive experience in climate change-related fields.

We would welcome the opportunity to discuss our submission further with relevant members of your department.

Best regards,

A handwritten signature in black ink that reads "Vicki Brady".

Vicki Brady  
President  
Environment Institute of Australia and New Zealand (EIANZ)



# National Adaptation Plan

Submission by The Environment Institute of Australia  
and New Zealand (EIANZ)



## About EIANZ

The Environment Institute of Australia and New Zealand (EIANZ) is the peak body for environmental professionals in Australia and Aotearoa New Zealand. Our membership spans a diverse range of technical professions including scientists, policy makers, engineers, lawyers and economists. We advocate for environmental knowledge and evidence-based practice and set high ethical standards for environmental practitioners through our Code of Ethics and Professional Conduct.

EIANZ's Climate Change Special Interest Section prepared the following submission in response to the Department of Climate Change, Energy, the Environment and Water's (the Department's) National Adaptation Plan (NAP) – Issues Paper, March 2024. The submission brings together expert opinions of Certified Environmental Practitioners with extensive experience in climate change-related fields.

## General Comments

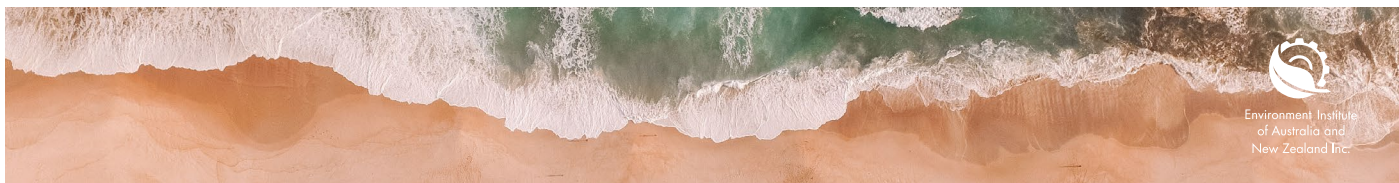
1. EIANZ commends the Department for giving attention to climate change adaptation. We recommend rapid implementation of effective adaptation actions, to be prioritised according to risk assessments and with resourcing commensurate to the scale (and potential financial cost) of the risks. EIANZ would be disappointed to see time and money spent on consultation and report preparation that does not result in significant improvements to Australia's resilience to climate change.
2. To ensure real improvements, EIANZ strongly recommends the Department review the [National Climate Resilience and Adaptation Strategy 2021–25](#) and the achievements of the Council of Australian Governments (COAG) Select Council on Climate Change. The Select Council and the Strategy had objectives consistent with the proposed NAP and a review of the achievements and challenges will provide insights that make the NAP more effective and easier to implement. It will also mean that we avoid 'reinventing the wheel' and repeating mistakes of the past.
3. The Issues Paper does not adequately convey the urgency of action to adapt to climate change. Instead, it pursues a more leisurely pace, as demonstrated by the reference to changes to the National Construction Code, which is notoriously slow to change. The Paper also fails to recognise the changes, impacts and societal effects which are already occurring.
4. The Issues Paper aspires to make adaptation 'mainstream' and notes that this requires a fundamental shift. The achievement of mainstreaming appears to be the ultimate goal of the National Climate Adaptation and Risk Program, of which the NAP is an element. However, 'mainstreaming' is not actually defined or described in the Issues Paper. EIANZ recommends the provision of a clear definition of 'mainstreaming' and a clear description of what Australia would be like when adaptation had been successfully mainstreamed. The nature of the shift required to achieve mainstreaming also needs to be described, along with the intended approach to creating the shift.
5. The Issues Paper talks about 'driving' adaptation to climate change into business as usual, for corporations and all levels of government. This suggests a reliance on power to force organisations to take action and would require the Commonwealth to have powers similar to those it deployed in response to World War II. Those powers were unprecedented at that time and are unlikely to be accepted by the contemporary public. EIANZ instead recommends an approach to adaptation



based on commitment and accountability. Individual organisations and governments at all levels should commit to specific adaptation measures and be held to account for the commitments they make.

6. EIANZ strongly supports embedding First Nations perspectives, priorities and experiences into the National Climate Risk Assessment and the National Adaptation Plan.
7. Some important aspects of adaptation do not receive sufficient attention in the Issues Paper. These include:
  - Population growth (which contributes to climate change and increases the challenge of adaptation), including the impact it has on crucial life support resources such as water.
  - Biodiversity and ecology (such as the adequacy of existing reserves, shrinking of climactic zones, migration of species and management of invasive species).
  - Skill sets needed in the future. These include capability within government (particularly planning), as well as trades, and will require substantial investment in the post-school sector by both government and business.
  - Research required to build knowledge to inform effective adaptation.
8. If local governments are to be a significant contributor to adaptation, the Commonwealth Government must provide them with greater support in terms of both capability and funding. The [NSW DCCEEW Local Government Climate Change Survey of 2023](#) showed that approximately two-thirds of local governments have included some adaptation and mitigation into their strategic plans, but in general, this has not been carried through to the local environmental plans or planning policies. This demonstrates a clear disconnect between strategic planning and on-ground climate-adaptive action.
9. The survey also identified barriers to adaptation including a lack of assigned funding; lack of staff (particularly in rural and remote areas); lack of capability; inconsistencies between State and Federal requirements and support; and uncertainty surrounding the role of Local Government in relation to climate change. These barriers need to be addressed to enable Local Governments to fulfil their responsibilities in relation to adaptation.
10. EIANZ recommends more rapid action on the National Climate Risk Assessment so that the NAP can be appropriately informed.
11. It is of paramount importance that the Australian community is engaged with the development and implementation of the NAP, because any attempt to impose adaptation actions upon the community will fail if the people affected have not been involved.





## Responses to consultation questions

### Foundations for a National Adaptation Plan

**Q: What do you think a well-adapted and resilient Australia looks like? Does the draft vision capture this? Why, why not? Do you agree with the key objectives of the plan? What other suggestions do you have?**

#### *Vision*

A well-adapted and resilient Australia:

- Provides healthy environments for all native species.
- Enables all citizens and residents, including First Peoples, to practice their culture and spiritual beliefs.
- Houses all of its citizens and residents in homes that are safe and healthy.
- Protects its citizens from extreme heat at home and in transit.
- Has infrastructure that continues to function normally during extreme heat, storms, cyclones, fire and floods.
- Has a national insurance scheme that is equitable, proportionate to the risks presented and effective in timely response to claims.

Unfortunately, the draft vision does not capture these outcomes. In fact, the draft vision does not actually create any picture. It is a broad statement that captures everything, promises nothing, and suggests a lack of vision and urgency.

The NAP should present a clear description of Australia in 2050 as a climate-adapted and resilient society, environment and economy. When that is established, the actions required to achieve that state can be identified and scheduled to create a plan.

#### *Objectives*

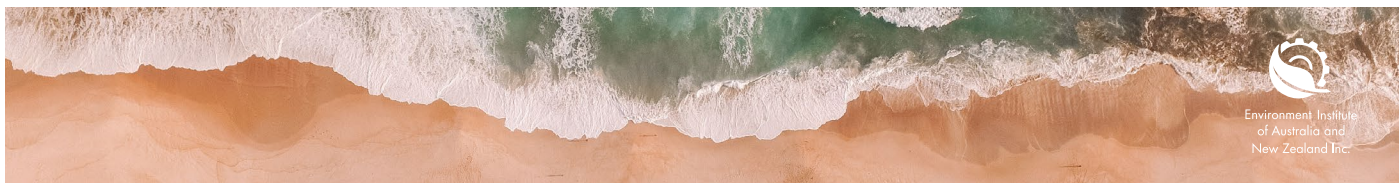
The objectives appear to be focused on actions needed to be taken to facilitate adaptation, rather than the desired outcomes. At this stage, particularly in the absence of a comprehensive risk assessment, it is impossible to know if the actions identified will deliver the required outcomes. If the objectives could be stated as outcomes, the processes for achieving those outcomes could change over time as our knowledge regarding effective action develops.

The objectives of the National Adaptation Plan should be to achieve particular outcomes relating to the 11 identified second pass risks.

#### *EIANZ's Suggested Objectives*

The National Adaptation Plan will:

1. Describe outcomes to be achieved in relation to adapting to priority climate-related risks.
2. Describe actions to be taken to achieve those outcomes, progress milestones and completion timeframes.
3. Identify parties responsible for described actions and gain their commitment to implementing actions.
4. Deliver real and substantial outcomes for Australians living with climate change, across 5, 10 and 50-year time horizons.
5. Deliver on Australia's commitments under the Paris Agreement, to adapt to climate change by enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change.



**Q: The plan will respond to the priority nationally significant risks identified in the National Climate Risk Assessment. Within those, what areas should be the Commonwealth's priority for this National Adaptation Plan and why?**

We have not seen evidence of a robust approach to determination of the priority risks, however, they are broad enough to cover most of Australia's adaptation requirements. The most important thing is that we start credible, impactful work to address the known significant impacts.

Priorities should include:

1. Providing for resettlement of Pacific Island populations where whole communities are being inundated by rising sea levels. This is underplayed in the Issues Paper. Resettlement is happening now and will only increase over time.
2. Building infrastructure to enable populations in vulnerable regions to move to areas less likely to be impacted by rising sea levels, floods, heatwaves and bushfires. Some parts of regional Australia can be expected to become unlivable due to sustained elevated heat. We need to start planning for this now.
3. Addressing the existing housing shortage and rental standards to reduce fatalities from extreme heat events and improve our capacity to provide homes for people displaced by the expected floods and bushfires. A raft of policy changes is needed to ensure people can access housing appropriate to their needs and income levels. The NAP is not the place to spell these out, but it does need to recognise that removing people from housing stress will contribute to a population more resilient to climate change.
4. Providing for future food production in terms of appropriate land, rainfall and financial structures. This should include investment in new plant and animal varieties that are fit for purpose in a changing climate. Producers should be supported to relocate where necessary. For example, wine companies have been establishing new vineyards in cooler climate regions like Tasmania for almost a decade.
5. Providing transport and appropriately located work for sub-urban communities for the time when fossil fuels become prohibitively expensive. Australia only has about 3 weeks of supply of liquid transport fuels in the event of a major trade disruption. Weaning our transport off fossil fuels as much as possible not only makes climate sense but also would make Australia far less vulnerable to disruption by a major international event (e.g. war in the South China Sea).

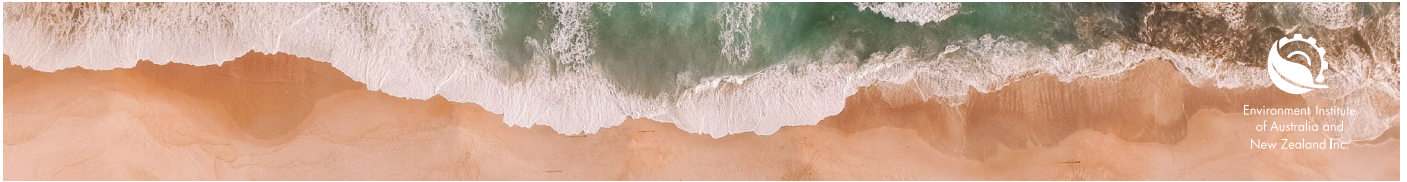
**Q: What is working well in adaptation policy governance at the national level? Are there more opportunities for collaboration, or institutional changes that will help build a more adapted Australia?**

Australia's response to COVID was quite good – although not perfect, it is widely recognised that we did a lot better than most countries. We should look to the COVID experience for insights to improve governance in relation to climate change.

We should be wary of creating more agencies to deal with specific issues. While there may be a case for creating new bodies, priority should be given to strengthening the expertise and capacity of existing institutions.

**Q: How should adaptation success be measured?**

1. Pacific Islander resettlement plans agreed by key stakeholders.
2. Plan for future food production agreed by key stakeholders.
3. Quantity of power, water and sewer infrastructure in low-risk areas.
4. House price: salary ratio.
5. Increased public transport in terms of numbers of trains, trams and buses, and in terms of access. Regional transport needs to be less dependent on fossil fuels and more efficient in fuel use, whether diversion onto rail or electrifying road transport. As a case study, the Commonwealth should



undertake a review of the Inland Rail from planning to construction to identify how climate risks were built into the process.

6. Proportion of insurance claims paid and time elapsed between claim and payout.

**Q: What time horizon should the National Adaptation Plan cover?**

Short, medium, and long term (5, 15 and 50 years), with greater detail for short and medium term.


**Q: Do you support the draft principles for prioritising and sequencing adaptation actions over time? Why or why not? Are there any gaps?**

The draft principles fail to recognise the urgency of action to adapt to climate change. The highest priority should be to address the significant impacts that are already occurring, such as homelessness caused by major floods. The second priority should be to reduce the magnitude of significant impacts expected with high levels of certainty.

## **Systems sections**

**Q: What measurement and evaluative tools and processes should be implemented to track adaptation progress for this system?**

EIANZ recommends an annual performance report to the Australian Parliament and people on implementation of the NAP.



# Net Zero Economy Authority

Submission by The Environment Institute of Australia  
and New Zealand (EIANZ)



## About EIANZ

The Environment Institute of Australia and New Zealand (EIANZ) is the peak body for environmental professionals in Australia and Aotearoa New Zealand. Our membership spans a diverse range of technical professions including scientists, policy makers, engineers, lawyers and economists. We advocate for environmental knowledge and evidence-based practice and set high ethical standards for environmental practitioners through our Code of Ethics and Professional Conduct.

This submission to the Senate Inquiry on the Net Zero Economy Authority Bill and the Net Zero Economy Authority (Transitional Provisions) Bill 2024 was prepared by EIANZ's Climate Change Special Interest Section and endorsed by the EIANZ Board.

## Executive Summary

- EIANZ supports the concept of a net zero economy and the establishment of a Net Zero Economy Authority. However, this Authority should be designed in such a way that it is held properly accountable for Australia's achievement of net zero greenhouse gas emissions by 2050.
- The scope of the Net Zero Authority Economy Bill and the Authority should be sharpened as well as broadened to explicitly include emissions embedded in traded goods.
- The success of the Authority should be judged by the rate at which the Australian economy moves toward net zero while Australia and Australian communities continue to flourish.
- The current Bill inadequately sets-up the Authority for success and should be strengthened to better support the Authority's work.
- The Authority be given at least one additional function: to identify obstacles to progress and find enablers in our economic, social and environmental systems that will accelerate our net zero economy transition.



## EIANZ Comments

### *Holding the Net Zero Economy Authority accountable*

A successful transition to a net zero economy is critical to the wellbeing of future generations and is one of the current generation's most important tasks.

EIANZ supports the concept of a net zero economy and the establishment of a Net Zero Economy Authority. However, the Net Zero Economy Authority Bill (the Bill) is particularly lacking in establishing accountability for the Authority, with functions described in terms of 'consulting and cooperating', 'facilitating' and 'supporting'.

The Net Zero Economy Authority Act (NZE Act) should assign proper accountability to the Authority for achieving net zero greenhouse gas emissions at least by 2050, as Australia has committed to under the UNFCCC Paris Agreement. Under this agreement, nations have agreed to work together to limit global temperature rise to as close as possible to 1.5 degrees. This requires net zero emissions globally at least by 2050 (if not well before). There can be no exemptions for this, either domestically or via emissions embedded in traded goods.

### *Creating a clear vision of a net zero Australia*

The Net Zero Economy Authority is sorely needed. The Australian economy is an advanced market economy but remains emissions intensive. We have emission reduction targets starting with 43% reduction by 2030 and net zero by 2050, which some have described as only achievable with a war-effort-type transformation of our economy. The NZEA Act must therefore provide for an effort of the scale that was applied to the Second World War.

Australia has several opportunities (being geographically large, well endowed with renewable and "green" minerals resources, politically stable and an educated and skilled workforce) to facilitate the required transformation and still retain its developed economy status.

The NZEA Act must recognise Australia's unique strengths in relation to the global transition and provide for their application in a successful transition for Australia and the global community. There is no guarantee we can do this as there are many risks and unknowns. A successful transition requires an adaptive strategy, extensive planning, and coordination between government, communities, industry and businesses. Shifting to net zero requires learning from past successes.

Change for communities is never easy (especially where rapid transformation is required). Australian communities not only need to see and understand the need for change, but also the opportunity that change can bring. This will require skilled, comprehensive and responsive community engagement to bring communities along on the journey.

EIANZ supports the formation of the Authority to 'operationalise' the vision of a net zero economy and to communicate the opportunities this provides. The Authority must be accountable for developing a clear vision of a net zero Australia and for engaging all elements of the Australian community in achieving that vision.

### *Defining the scope of the Authority*

Although the Bill Title and the Authority title both contain the phrase 'net zero economy', there is no definition provided for this phrase (albeit there is a definition for 'net zero initiative'). This omission leaves scoping of the Authority's work to the government, Minister, Board and CEO of the day, which creates the risk of changes in approach and emphasis according to personal preference and/or external pressures.



EIANZ recommends the inclusion of an ambitious definition of net zero economy that includes net elimination of Australia's direct and indirect (Scope 3) emissions, while strengthening and de-risking Australia's economic and social well-being and resilience and building strong support from the community, including through genuine consultation with Australia's First Nations peoples.

We also seek the inclusion of Scope 3 emissions in the work of the Authority (for further information, please see our Scope 3 emissions Supplemental Position Statement attached) because Australia is not an island unto itself. Scope 3 emissions are both a major contributor to global emissions and a source of domestic economic risk for Australia.

The Authority must not be solely focused on the transition away from coal and gas. While such a focus would be significant in meeting net zero, this represents only one sector of the economy, and it is important the Authority also address other sectors such as the built environment and transport. As the world moves to net zero, there will be broader impacts (outside of domestic coal and gas regions) to both the demand/supply or revenues/costs to Australian exports/imports. Furthermore, with the significant global energy, transport, agriculture, industry and economic transformation, new goods, services and markets will become opportunities, and these should be also considered by the Authority.

### *Defining the success of the Authority*

The global and national urgency to address the climate crisis is such that the proposed Authority absolutely must be successful – there is no room for failure. For success to be achieved, the Authority needs clear objectives, accountabilities, authorities, and regular, open, and meaningful performance assessment. The success of the Authority should be judged by the rate at which the Australian economy moves toward net zero while Australia and Australian communities continue to flourish.

The current Bill inadequately sets up the Authority for success and should be strengthened to better support the Authority's work. The Authority needs to command respect from the many parties needed for Australia to become a net zero economy. However, the Authority's standing amongst Commonwealth Departments, States and Territories and Business with which it will interact is potentially weakened by:

- the absence in the Bill of a clear definition for of 'net zero economy'
- the comparatively weak action words (i.e. promoting, facilitating, supporting, encouraging etc) used in establishing Authority's functions
- the lack of detailed requirements for the Authority's annual report.
- The danger is that it will therefore be perceived as ineffective and of insufficient priority.

The Authority's annual report is a key opportunity to inform the Minister, Parliament and the Australian people of its progress against both process outcomes and net zero economy performance outcomes. Reasons for and solutions to any under-performances need to be identified and reported in this forum. Tighter reporting specifications of the Authority's and the nation's net zero economy performance should be included in the Bill.

It is unclear from the Bill or the Explanatory Memorandum what proportion of the Authority's effort will be devoted to the Energy Industry Jobs Plan. EIANZ supports such a plan but suggests funding for the Authority needs to be sufficient to ensure all designated functions can be properly fulfilled. To this end, the funding for the Authority should be sufficiently transparent



and ongoing so that the Parliament and the public can be confident that all the work of the Authority is adequately resourced.

Finally, if after sufficient time the Authority has not been able to adequately progress Australia's net zero targets, it should be disbanded, or radical changes implemented to ensure that objectives are achieved. A regular review of the Authority's performance and effectiveness to bring about meaningful net zero transition should be included in the Bill. EIANZ recommends the interval between reviews be 5 – 10 years.

### *Identifying and addressing the enablers for a rapid net zero economy transformation*

EIANZ recommends that the Authority be given at least one additional function: to identify obstacles to progress and find enablers in our economic, social and environmental systems that will accelerate our net zero economy transition. This activity could be undertaken in conjunction with Productivity Commission and DCCEEW.

The transition to a net zero economy presents many significant opportunities for improving wellbeing, standards of living and quality of life (e.g. air quality, workplace health and safety, job satisfaction, work-life balance). The NZEA Act should provide for a focus on opportunities as well as mitigating risk.

We suggest that one potential impediment to the net zero transition is the daunting scale of the approvals and engineering effort to replace our existing carbon energy, transport, processing and economic systems (43% by 2030 and 100% by 2050). But this transition cannot and will not be achieved with a laser like one-dimensional focus on emissions mitigation (as we are seeing with the delays in various transmission line approvals). Economic, social and nature positive actions must go hand-in-hand.

However, our current economic, social and environmental systems can be slow and probably cannot deliver to the necessary timeline, which presents another potential obstacle. Our existing systems for economic (financial prudence and accountability), social (engagement, consultation and social impact assessment) and nature positive (environmental assessment) actions need to be respected, but also adjusted to reflect the challenges arising from the need for an urgent net zero economy transition. This requires a whole of government response.

As a nation we need to reduce the time taken for consultation, approvals, financing and construction. The best way to achieve this is appropriate resourcing and getting assessments, proposals and processes right the first time. Sustainable solutions require that the needs of the community, the climate and the natural and built environment are all protected. EIANZ supports urgency in achieving this streamlining but does not support attempts to cut corners nor reductions in transparency or protections – as short-term expediency results in poor decision making with subsequent delays and costs.

The Net Zero Economy Authority should be tasked with identifying and responding to these potential blockers as part of its core remit, though it should not be held solely responsible for resolving them. The Authority should work closely with other relevant departments and government authorities, but should ultimately be a leader in this space.