

# Climate Change Authority Targets Issues Paper: Submission

May 2024

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## Key points

- The Investor Group on Climate Change (IGCC) welcomes the opportunity to make a submission to the Climate Change Authority's (the Authority) issues paper on Australia's 2035 target. IGCC's 100+ members include our countries' largest superannuation and retail funds, specialist investors and advisory groups, and their beneficiaries include more than 14.8 million Australians, and millions more New Zealanders.
- IGCC supports the Authority's proposal to set a 1.5°C aligned target with the highest
  possible level of ambition. National targets and economic strategies that are aligned to 1.5°C
  will deliver the best long-term returns to investors and the retirement savings of millions of
  Australians.
- 3. Social licence is a significant factor in the successful adoption and implementation of any future climate policy. To fulfil obligations under the Climate Change Authority Act, the Authority should recommend the Government allocate at least \$10 million a year to the Authority to undertake meaningful public consultation and communication on matters relevant to its functions.
- 4. Australia should not underestimate the power it has to stimulate global decarbonisation with its own Nationally Determined Contribution. Clear targets for clean industry exports in industries where Australia has comparative advantage and for the phase out of fossil fuel exports are needed to better inform future investment decisions. Phase out targets for fossil fuel exports will also support the transition to green energy infrastructure in our trade partners by signalling the direction of travel for one of their major energy suppliers.
- 5. Investors are seeking investment opportunities in a broad range of technologies and options, including those where Australia has a comparative advantage, including renewable energy, critical minerals and green hydrogen. The signals sent by the Future of Gas Strategy are inconsistent with recent Government statements to limiting climate change to 1.5°C and transitioning out of fossil fuels in the energy system by 2050. It also risks seeing capital that would not have otherwise been allocated going to emissions intensive activities, undermining an orderly transition and making meeting national targets more difficult. This will create stranded assets and increase the cost of national transition.
- 6. To support economy wide investment, mandates, rules, standards and public financing need to be embedded in investment-grade sector decarbonisation plans that add up to meeting national objectives. Actionable pathways will drive economic growth and attract investment while seizing on the net zero transition opportunities. Accordingly, investors have identified investable sector plans as their highest policy priority to attract capital to the transition in Australia.
- 7. Fiduciary duties and, in the case of Australian superannuation funds, legislation prevent most institutional investors from accepting below-market capital returns. This means that to invest in transition activities, investors must see them as viable and fundamentally sound business opportunities that meet stringent investment processes. Governments have a range of tools that can send strong market signals and create markets for new, clean products. When linked with green industry policy, ambitious decarbonisation targets send signals that can reshape

economies. Effective industry policy includes push, pull, and enabling policies to shape demand and innovation.

- 8. Physical climate damages are very significantly under-priced in capital markets and the economy as a whole. Damages are significant already and will escalate with higher levels of global warming. Even if warming is limited to 1.5°C many critical systems that support investment will be at high risk requiring transformational adaptation actions. Warming above 1.5°C-2°C puts at risk the ability of Australia's socio-economic systems to recover from compounding climate damages. To support private sector investment in transformational adaptation Governments should:
  - a. Co-develop a finance strategy and plan to attract private investment into adaptation and resilience,
  - b. Align adaptation across governments' climate change activities,
  - c. Facilitate public-private partnerships and develop frameworks to manage complex adaptation challenges,
  - d. Develop and co-fund case studies for best practice private and public-private financing of adaptation and resilience,
  - e. Legislate the National Adaptation Plan and National Climate Risk Assessment, and,
  - f. Establish a coherent climate information, skills, and science strategy.
- 9. Finally, Australia cannot afford to be cautious. Australia has an opportunity to be bold, not because it should, but because it must. It is essential to wrestle back the capital that is otherwise being drawn to international jurisdictions with more established national economic policies and strategies. The purpose behind a target is not just to meet it, it is to drive ambition and innovation. IGCC would urge the Authority recommend to an ambitious target.

### About the Investor Group on Climate Change

We are the leading network for Australian and New Zealand investors to understand and respond to the risks and opportunities of climate change.

Our members have more than \$35 trillion in global AUM, and \$5 trillion in local AUM. They include our countries' largest superannuation and retail funds, specialist investors and advisory groups, and their beneficiaries include more than 14.8 million Australians, and millions more New Zealanders.

For more information please contact: Bethany Richards: <u>bethany.richards@igcc.org.au</u> 1. How should the authority take account of climate science and Australia's international obligations in considering possible emissions reductions targets for 2035? IGCC agrees with the Authority that Australia's 2035 emissions target should be aligned to 1.5°C and be at the highest possible level of ambition.

National targets and economic strategies that are aligned to 1.5°C will deliver the best long-term returns to investors and the retirement savings of millions of Australians:

• Physical climate damages will increase with higher levels of climate change: Instability in climate conditions and more extreme weather events will cause direct damage to assets, lowering their value, increasing insurance costs and claims and exacerbate supply chain disruptions. Climate damages also present systemic risks to the functioning of economic, financial and wider systems on which investment performance relies.<sup>1</sup> Global warming above 1.5°C will exceed the adaptation capacity of many critical systems and put at risk the ability of Australia's socio-economic systems to cope with compounding climate damages.<sup>2</sup>

Scenario modelling undertaken by investors and the global central banks indicates that an orderly transition to 1.5°C pathway results in the lowest economic cost outcome in the long term. This is consistent with investors' purpose of helping members achieve their best financial position in retirement. <sup>3 4 5 6 7 8 9 10</sup>

- Climate change is a systemic risk that investors can't divest from: Divestment from a company or economy does not mean that real world emissions reductions are occurring. In addition, investments held across the globe are still exposed to short and long-term climate-related risks and divestment effectively moves the problem to the next buyer of the asset. As universal owners, the ability of investors to deliver returns is dependent on policymakers and portfolio companies making and delivering on their own net zero commitments.
- A disorderly transition to net zero is high cost: Rapid and far-reaching transitions across all sectors and systems are necessary to achieve deep and sustained emissions reductions. Delaying emissions reduction and climate adaptation will increase risks of stranded assets and will increase risks of loss and damage due to climate. An abrupt and/or disorderly transition to a 1.5°C pathway will lead to market repricing that has negative impacts on portfolio values and has disruptive effects to the economy and employment.

• International commitments to 1.5°C have helped investors: Australia's international obligations carry
considerable weight and have also acted as a useful signal for investors as climate policy has developed. Backtracking on
these commitments will undermine market confidence in an orderly transition to net zero emissions.

2. How should the authority weight the goals of ambition and achievability in considering possible emissions reductions targets for 2035? The target should be set at the highest possible level of ambition and with the recognition that:

- Economic and other modelling consistently overstates the cost of meeting emissions targets,<sup>11</sup>
- regardless of the wording surrounding it, investors are likely to see any target as a ceiling and not a floor on ambition, and;
  - Australia's comparative advantage and economic opportunities in national and global green and transition industries.

Overall, an ambitious 2035 target (even if the nation falls short) will incentive more ambitious policy, and faster capital allocation at the appropriate scale to achieve an orderly transition to a net zero economy.

Finally, social licence is a significant factor in the successful adoption and implementation of any future climate policy. Investors have identified the probability of gaining and maintaining social license around the transition, and the ongoing decline in trust for Government and other institutions such as corporates and NGOs as an emerging systemic risk to the economy.<sup>12</sup> Research also demonstrates that independent bodies who do not have vested interest in climate outcomes are central to building social licence. The Authority's Board would meet this criterion.

Finally, the research and engagement industries have moved towards use of deliberative approaches to consult with the community on complex issues.<sup>13</sup> These typically involve recruiting participants who are broadly reflective of the relevant community or customer base, being very clear about the issues they can influence and the areas of focus, building their capacity to respond through providing clear and easy to understand information and giving them the ability to ask questions, giving them the opportunity to listen to other perspectives, and to weigh up various options.

To fulfil to obligations under the Climate Change Authority Act<sup>14</sup>, the Authority should recommend the Government allocate at least \$10 million a year to the Authority to undertake meaningful public consultation on matters relevant to its functions. Critical to this will be:

- Undertaken in coordination with and not be duplicative with the community engagement functions of the Net Zero Economy Agency, and;
- Engaging with experts to deliver best practice engagement such as deliberative forums.

3. How can Australia further support other countries to decarbonise and develop sustainably? Australia should also not underestimate the power it has to stimulate global decarbonisation with its own Nationally Determined Contribution. Australia has had an outsized role in contributing to global emissions; 5-7% of global emissions are from Australian fossil fuel exports.<sup>15</sup> Australia also has all the ingredients required to become a new green industry exporter, have an outsized impact on global decarbonisation and deliver stronger economic outcomes.<sup>16 17</sup>

The opportunity for Australia to establish itself as a renewable energy superpower is rapidly closing, with capital being pulled towards international jurisdictions that have a better established national economic strategy. Developing requisite industries will take time; it is an economic transformation that must begin now.

Additionally, a key divergence on domestic decarbonisation scenarios undertaken in Australia over the last decade have been assumptions around the level of green exports and concurrent level of new domestic renewable energy investment required to facilitate such developments. This presents a major uncertainty for investors on the capital requirements for new energy investments.

Clear targets for clean industry exports in industries where Australia has comparative advantage and the phase out of fossil fuel exports are needed to better inform future investment decisions. Phase out targets for fossil fuel exports will also support the transition to green energy infrastructure in our trade partners by signalling the direction of travel for one of their major energy suppliers.

The other significant uncertainty in future demand for Australian exports are the impacts of climate change itself. The economic damages of climate change in key export markets are expected to be very significant<sup>18</sup> <sup>19</sup> and these are currently not considered in Government and industry demand forecasts. The inclusion of climate damages into export demand forecasts will reduce the risk of stranded assets.

Finally, investors may want to increase investment in Emerging Markets and Developing Economies (EMDEs) to gain exposure to growing economies for portfolio diversification, to have a positive social impact and to overcome weighting bias in the Australian economy. While EMDEs appear to experience more return volatility than developed markets, there is evidence for greater returns over the long-term. Investment in EMDEs is generally agreed to have a higher risk profile, meaning investors may be putting capital at risk, or risk lower than expected returns. Governments have a role in developing trade partnerships in attractive EMDEs,

with public funds being used to de-risk opportunities in new markets. For recommendations on how Governments can deliver blended finance and other support, see IGCCs report *Mobilising Climate Investment in Emerging Markets.*<sup>20</sup>

IGCC recommends the Authority:

- Establish clear green industry export targets for industries where Australia has comparative advantage, e.g. green hydrogen, green iron, ammonia and aluminium, and sustainable aviation fuels. These targets should be integrated into domestic policies and sector pathways to support necessary investment into the upgrade of domestic electricity systems.
- Recommends clear phase out targets for the export of fossil fuels by sector. This should be in line with the Government's commitment, along with other Umbrella Group countries, to support the transition out of fossil fuels in the global energy system by 2050.
- Recommends that the Government engages international trading partners with established markets for Australian fossil fuels to collaborate on trade agreements that include push, pull and enabling conditions that will establish demand for green energy commodities and technologies.
- Recommends that the Government engages in dialogue with regional governments to collaborate on meeting their transition needs and determine how new markets for Australian green product can be established.

- Recommends the Government engage investors on prospective projects that will supply Australia and international trade partners with green product, to determine what policy settings would achieve the right risk-return profiles that will enable investors to act with confidence.
  - IGCC, 2023, *Mobilising Climate Investment in Emerging Markets:* <u>https://igcc.org.au/wp-content/uploads/2023/05/Mobilising-Climate-Investment-in-Emerging-Markets\_FINAL.pdf</u>

4. What technologies are important for each sector's pathway to net zero and why? Investors see renewable energy as a key opportunity to deliver the best long-term financial returns to beneficiaries and critical to a least-cost transition to net-zero emissions.<sup>21</sup> Around five in ten investors are currently exploring opportunities to invest in renewable energy (Figure 1). However, investors are seeking investment opportunities in a broad range of technologies and options, including those where Australia has a comparative advantage, including critical minerals and green hydrogen.

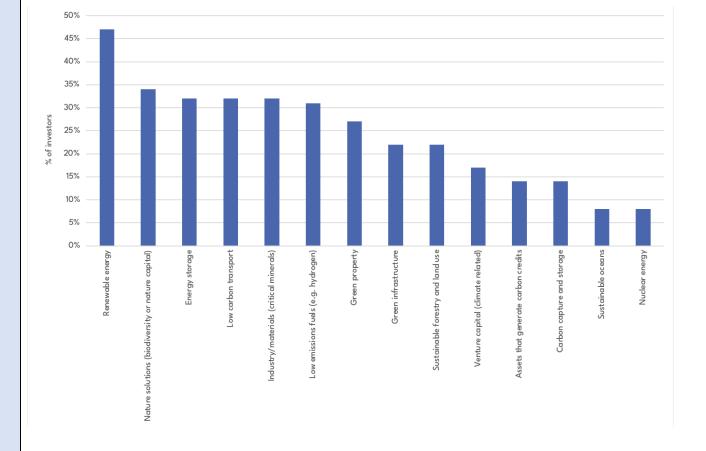


Figure 1: Climate solutions investors see as delivering best long-term returns. Respondents could give more than one response.

Investors need a clear signal about the direction and pace of travel for transition in order to allocate the capital required at scale and speed. This means policy consistency and a whole of government approach.

The signals sent by the Future Gas Strategy are inconsistent with recent Government statements at the UNFCCC's Conference of Parties 28 focused on limiting climate change to 1.5°C and transitioning out of fossil fuels in the energy system by 2050. It also risks seeing capital that would not have otherwise been allocated going to emissions intensive activities, undermining an orderly transition and making meeting national targets more difficult. This will create stranded assets and increase the cost of national transition.

The number of investors calling for timelines for the phase out of fossil fuels has seen over a 20% increase over the last year.<sup>22</sup> As a major coal and gas exporter, the Australian economy is highly exposed to the accelerating transition away from fossil fuels. The overall Australian market has twice the emissions intensity of other major markets. This presents investors with a major challenge as they would like to remain invested in the Australian economy, but if Australia does not join the global transition away from fossil fuels, investors will be forced to invest in other markets to protect and enhance the value of the long-term returns for their beneficiaries.

Clear timelines for the phase out of fossil fuels by 2050 will help investors manage transition risks and remain invested in the Australian economy. See also the answer to Question 3 above.

Key additional resources:

- IGCC (2024). Climate Policy Improves Investment Confidence Australia's institutional capital market, Policy brief: https://igcc.org.au/wp-content/uploads/2024/03/FINAL-IGCC-Net-zero-survey-2024-policy-media-brief.pdf
- IGCC (2021). Changing pathways for Australian gas: A 1.5°C scenario analysis of new Australian gas projects: https://igcc.org.au/wp-content/uploads/2022/04/IGCC-Changing-pathways-for-Australian-gas-FINAL.pdf

5. 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?

6. 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? To support economy wide investment, mandates, rules, standards and public financing need to be embedded in investment-grade sector decarbonisation plans that add up to meeting national objectives.<sup>23</sup>

Actionable pathways will drive economic growth and attract investment while seizing on net zero transition opportunities. Accordingly, investors have identified investable sector plans as their highest policy priority to attract capital to the transition in Australia.<sup>24</sup>

Fundamentally, sector plans can play a crucial role in building a common understanding within Australia of what must be done. All actors need to be clear about which parts of the economy will be doing what, and we need to be confident that every sector is doing its fair share. Different sectors will go at different speeds in the race to net zero emissions. Some sectors, such an energy, are better equipped to make the transition sooner, providing a buffer in the emissions budget to those sectors for which transition is more difficult, due to cost, technology gaps, and workforce constraints.

Sector plans also give Australia agency. The global transition is going to be disorderly. Having sector transition pathways will minimise disorder in Australia's transition, and will allow Australia to take advantage of the global race to clean energy.

Actionable sector transition plans, which can underpin stable and long-term policies, will help investors avoid investing in potentially stranded assets, and allow them to allocate capital confidently. Collaboration with the Net Zero Economy Authority for regional community transition will be critical.

A mix of push and pull policies and robust enabling environments are key

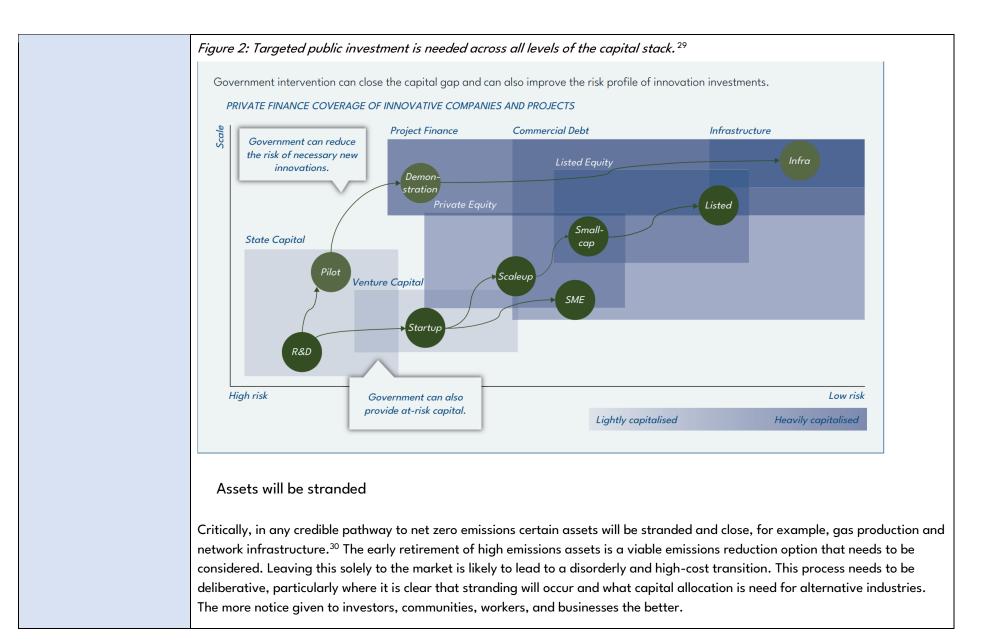
Investors, companies and governments must work together to deliver a well-planned and fair transition; public funds and policy mechanisms can create opportunities for the private sector to deliver the bulk of required capital. Fiduciary duties and, in the case of Australian superannuation funds, legislation, prevent most institutional investors from accepting below-market capital returns. This means that to invest in transition activities, investors must see them as viable and fundamentally sound business opportunities that pass stringent investment processes.

Governments have a range of tools that can send strong market signals and create markets for new, clean products. When linked with green industry policy, ambitious decarbonisation targets send signals that can reshape economies. Effective industry policy includes push<sup>25</sup>, pull<sup>26</sup>, and enabling policies<sup>27</sup> to drive demand and innovation.<sup>28</sup>

Macroeconomic policy will be required to cultivate new industries that will facilitate a smooth transition for Australia and its trade partners, which includes a holistic policy approach to embed push, pull, and enabling conditions. Supporting capital allocation across the capital stack to get technologies and commodities from the R&D stage to mass commercialisation will be critical. Ensuring there are a pipeline of investible projects will improve the business case for institutional investors to deploy larger amounts of capital. Pureplay grant funding and co-financing has its place in establishing new industry, but there is more that governments can do to coordinate and shape industry through macroeconomic policy.

In general, public funds should be used to de-risk and crowd-in private investment into precommercial technologies that face significant barriers to commercialisation because of historic policy instability. Different supporting policies will be needed at all levels of the capital stack to get technologies from the R&D to deployment scale required to attract institutional investment. New assets and companies have often found it challenging to find equity and debt financing as they move from R&D through the startup or pilot phase, making it unlikely that these entities will successfully grow into larger scale commercial enterprises. Targeted policies that address all parts of the capital stack are critical for investors to access new opportunities, thereby diversifying and decarbonising their Australian portfolios.

• IGCC recommends that the Authority engages investors on what types of finance and private equity are required at each stage of the capital stack, from R&D to deployment of a technology/industry.



The National Energy Transformation Partnership could play a convening and coordinating role, making it well positioned to manage such retirement and replacement. Collaboration with the Net Zero Economy Authority for regional community transition will be critical.

• IGCC recommends that the Authority emphasises the coordinating role that the National Energy Transformation Partnership can play in addressing challenges to replacing emissions-intensive infrastructure shared by industries.

#### Key additional resources:

- IGCC (2023). Decarbonisation investment solutions for sectors: A discussion paper on Sector Transition Plans and their importance to investors: https://igcc.org.au/investable-sector-climate-plans-are-crucial-to-clean-energycompetitiveness/
- IGCC (2024). *Climate Policy Improves Investment Confidence Australia's institutional capital market*, Policy brief: https://igcc.org.au/wp-content/uploads/2024/03/FINAL-IGCC-Net-zero-survey-2024-policy-media-brief.pdf
- IGCC (2023). Driving Australian Climate Innovation, White Paper: <u>https://igcc.org.au/wp-content/uploads/2023/04/Full-</u> <u>Report-IGCC-Funding-an-Australian-Climate-Tech-Boom.pdf</u>

	As a general principle, offsets should be used as a measure of last resort. <sup>31</sup> The use of offsets is only appropriate where there is
7. How can governments	not a technologically or financially viable solution to achieve emission reduction objectives.
better support markets,	
including carbon markets,	Investors rely on credible transition and decarbonisation plans to determine what climate risks they are exposed and contributing
to deliver emissions	to. Overall, national, sector or company decarbonisation plans that rely on offsets to achieve emissions reductions will not be
reduction outcomes?	perceived as credible by investors. <sup>32</sup>
	Investors understand that some sectors will require more offsetting than others, especially in the short term while technologies are still being developed to fully decarbonise processes. However, they expect that in industries where technology is available, that supporting environments are cultivated to encourage business to make the switch.

8. 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? Institutional investors invest across the entire Australian economy and have an interest in rapid electrification of the energy sector to deliver a least-cost economic transition.

The Authority should consider ways outside of utility-scale renewable energy to bring more clean energy online. Integrating Consumer Energy Resources (CERs) into the electricity system are one such avenue.

Rooftop solar is putting increased strain on the grid as it exacerbates fluctuations in aggregate supply. However, it can be coordinated via Virtual Power Plants (VPP) with community-scale batteries to store energy when it is abundant and supply into the grid at periods of peak demand. Market and regulatory reforms will be essential in supporting an electricity system that has a high penetration of CERs.

Institutional investors are seeking large investment opportunities, to the scale of that organised by the Clean Energy Finance Corporation (CEFC). Government can improve the economics of VVPs by making the returns for operators and households more attractive, with new entrants to the market reducing the marginal cost for participation over time. This will encourage more homeowners to access electrification loan schemes.

Packaging a scheme like the Electrify Everything Loans Scheme,<sup>33</sup> as proposed by Rewiring Australia, with adaptation and resilience home upgrades, would mean that more behind-the-meter resources can become grid-connected, and these assets will be secured over the long term by situating them within climate-resilient buildings.

IGCC recommends that the Authority:

- Prioritises the integration of Consumer Energy Resources into the electricity grids, working to address regulatory, market and consumer barriers to integration.
- Explores market and regulatory changes to support proliferation of VPPs.

	<ul> <li>Reviews regulatory frameworks to ensure they support the expansion of batteries located in local distribution networks.</li> </ul>
	<ul> <li>Makes recommendations to remove regulatory barriers to investment in kerbside electric vehicle charging infrastructure.</li> </ul>
	• Considers efficient ways to package electrification financing options with adaptation upgrades.

9. How should governments decide upon the appropriate allocation of resources towards reducing emissions, removing carbon from the atmosphere, and adapting to climate change impacts? Physical climate damages are very significantly under-priced in capital markets and the economy as a whole. Damages are significant already and will escalate with higher levels of global warming. Even if warming is limited to 1.5°C, many critical systems that support investment will be at high risk, requiring transformative adaptation actions.<sup>34</sup> Warming above 1.5°C-2°C puts at risk the ability of Australia's socio-economic systems to recover from compounding climate damages.

In consultation with experts, the Australian Government has correctly identified that financial stability is at risk if the physical damages of climate change are not effectively managed. The National Climate Risk Assessment (NCRA) is an essential first step to ensure that a range of stakeholders, including governments and investors, have a shared understanding of physical climate risks and can work together on adaptation priorities.<sup>35</sup> The findings of the NCRA will help illuminate the appropriate split between emissions reductions and adaptation financing – acknowledging also that adaptation measures are far less invested in than mitigation activities.

However, for private investment to be directed towards adaptation, there are significant barriers that must be addressed:

- Limited or complex investment cases for adaptation challenges include creating clear, low-risk revenue streams and aggregating small, local projects for institutional investors.
- Measuring risk and return on investments particularly where benefits are spread across stakeholders and may be derived from cost avoidance as opposed to value creation.
- Lack of decision-useful data current data and methodologies for assessing physical risk are not fit-for-purpose for adaptation.<sup>36</sup>
- Regulatory and taxonomy constraints current financial regulations and taxonomies (e.g., Australian Sustainable Finance Taxonomy) do not recognise or incentivise adaptation investments as green or sustainable.
- Insufficient public-private partnerships limited frameworks for collaboration on adaptation projects.
- Lack of coordination across levels and departments of government effective adaptation will require collaboration across geographical and organisational boundaries.<sup>37</sup>

To address these barriers IGCC has recommended that the Government<sup>38</sup> :

• Co-develops a finance strategy and plan to attract private investment into adaptation and resilience.

Developing a clear, time-bound strategy and plan for private sector investment in adaptation would have several benefits, including:

- Sending a clear signal to private investors that adaptation is a priority for the Government and an important investment opportunity.
- Providing tangible opportunities for private investment in adaptation.
- Building confidence in both investors and other stakeholders that the objectives of National Adaptation Plan (NAP), including mainstreaming adaptation action and driving substantial uplift in private sector investment, will be achieved.
- Aligns adaptation across governments' climate change activities.

One of the key objectives of IGCC's *Physical Risk Strategy: Road to Resilience*<sup>39</sup> is to integrate physical risk and resilience, including adaptation, into all investor climate change-related policies and activities, including policy advocacy. As such, IGCC supports the Government's goal to mainstream adaptation.

To achieve this, the Government should:

- Expand the Australian Sustainable Finance Taxonomy to include adaptation and resilience measures, broadening sustainable investment definitions and opportunities.
- Include adaptation in sovereign green bonds issuances.
- Mandate climate-related financial disclosures that include comprehensive risk assessments for current policies risk scenarios (e.g., 3+°C).
- IGCC recommends that the Federal Government facilitates public-private partnerships and develop frameworks to manage complex adaptation challenges.

Public-private collaboration will be required to fund the scale of adaptation required and will be necessary to address current barriers to private investment in adaptation. In addition to this, collaboration between governments, communities, investors and businesses will be required to effectively implement adaptation and increase resilience.

It is important for businesses and individuals to understand and manage their own risks. While this is appropriate in some circumstances (e.g. direct damage to a privately owned asset), the damages of physical risk are often indirect, including supply chain issues and disruption, and through overall finance system risks. This limits the ability of a single business or individual to increase their resilience. For example, many roads are publicly owned but if they are not adapted to climate change, mismanagement can have a negative impact on businesses and individuals. While the Federal Government may not have a role in coordinating adaptation activities in all cases, they should provide national leadership on how to address complex risks.

• IGCC recommends that the Federal Government develops and co-fund case studies for best practice private and public-private financing of adaptation and resilience.

Co-funding (with the private sector) case studies for private and public private financing of adaptation and resilience will build investor confidence, test frameworks and methodologies, and provide low-risk opportunities for private investment.

 IGCC recommends the Federal Government legislates the National Adaptation Plan and National Climate Risk Assessment.

IGCC supports the Climate Change Authority's recommendation that NAP and NCRA should be legislated with updates at least every five years, with legislation to also cover ongoing monitoring and evaluation. This positions adaptation as a key priority for the Government and builds investor confidence that it will continue to be. In addition, requiring monitoring and evaluation supports investor confidence that physical risk is being proactively and effectively managed, and that Australia remains an attractive place for international capital investment. A similar framework to the United Kingdom, where progress reports, perhaps by the Climate Change Authority, are required every two years, would be appropriate.  IGCC recommends that the Federal Government establishes a coherent climate information, skills, and science strategy.

As the NAP and NCRA develop, they will produce insights into what information, skills, and science are needed to achieve their objectives. It is essential that the development of these are prioritised and funded within a coherent, national strategy. While this need not all be funded publicly, communication of these priorities will allow relevant sectors to contribute to develop these resources and capabilities. In addition, this strategy should extend to collecting and disseminating existing decision-useful information, as well as funding the development of new information. This may include data on hazards, risk assessments, exposure information, and climate change metrics.<sup>40</sup>

Key additional resources:

- IGCC (2024). Submission: National Adaptation Plan to manage physical risks for economy: <u>https://igcc.org.au/nap-submission-2024/</u>
- IGCC (2023). Investor Expectations: National Climate Risk Assessment: <u>https://igcc.org.au/wp-</u> content/uploads/2023/07/Briefing-Investor-Expectations-National-Climate-Risk-Assessment.pdf
- IGCC (2023). Submission: Independent Review of the Australian Climate Service: <u>https://igcc.org.au/wp-content/uploads/2023/12/IGCC\_ACS\_Submission\_Dec23.pdf</u>

12. 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? Attracting investment to Australia's transitioning regions is crucial for communities and industries to undergo a successful netzero transformation. Critical social infrastructure that improves the liveability of communities is an important part of any regional transition plan; healthcare, childcare, education institutes and good housing are all considerations. Social benefit sharing improves public buy-in for the transition, helping Government achieve enduring support through difficulties that this journey may present. In turn, enduring policy will provide investors with the certainty they need that their capital will bring returns over the long term from thriving regional economies.

IGCCs view is that the Net Zero Authority will be well equipped to deliver these important outcomes throughout the energy transition, via its core functions to:

- Promote cooperation, coordination and consistency between Australian governments and other key stakeholders on matters relating to a net zero emissions economy;
- Facilitate public and private sector participation and investment in emission reduction and net zero transformation initiatives;<sup>41</sup>
- Support affected workers in emissions-intensive industries and First Nations people to successfully navigate, and benefit from, the transition to a net zero emissions economy; and
- Promote an understanding of, and enable public participation in, Australia's energy transition. The new Authority will be critical to unlocking billions in private investment and ensuring affected workers and communities across the country have the support they need to help build Australia's net zero economy.

As per IGCC's *Investing in Australia's Vital Regions* report (2023)<sup>42</sup> it is recommended that Authority provide advice to Government on the:

 Development of investible transition plans for emissions-intensive regions and priority sectors that are co-designed with affected communities and workers.

- Ensuring that the national Net Zero Authority acts as a 'front door', with information-sharing and convening functions, to improve coordination within and between levels of government and key stakeholders working to transform priority regions and sectors.
- Addressing the barriers to the growth of businesses in transitioning regions.
- Bringing timely and targeted financial support to the market to attract diverse capital in response to identified capital gaps. This support should aim to establish a pipeline of investible opportunities for priority regions and sectors.

#### Skills and workforces

 IGCC recommends that the Authority provides Government with advice on priority workforces and skill shortages, so that they can mandate workforce conditions on public financing support.

A lack of an appropriately sized and skilled workforce is a significant concern to investors seeking opportunities in new clean industries. The energy transition will create thousands of jobs, but without significant, targeted, and coordinated investment by Government in the skills and training sector to develop the workforce, this ambition will not be realised.

Funding workforce development and education – e.g. tying apprenticeships to PPAs, improving on-site conditions for renewables projects. It is important to demonstrate to communities that jobs in renewable energy are secure and well-paid, to attract people into the sector.

#### Key additional resources:

 IGCC (2023). Investing in Australia's Vital regions: Investor perspectives on how to leverage private capital to transform Australia's emissions-intensive regional economies and deliver a just transition: <u>https://igcc.org.au/wp-</u> content/uploads/2023/10/IGCC-Investing-in-Australias-Vital-Regions\_Report\_2023\_online.pdf

13. How can governments help Australians prepare	IGCC member Resilient Building Council developed the Bushfire Resilience Rating Home Self-Assessment App, which has been endorsed by some insurers. These insurers have offered reduced insurance rates for properties that are resilient against fires. <sup>43</sup>
for and respond to the impacts of climate change?	Innovations like this help improve cost of living affordability and reduce stress on the insurance system by encouraging property owners to implement adaptation activities. This has a flow-on effect for banks, which are heavily invested in the Australian property market. Assets that hold their value in a climate-changed world will improve the security of the banking system, as loans and repayments can still be made in a functional way. Mass devaluing and divestment of property assets will impact interest rates, liquidity and the ability for banks to provide loans.
	This presents whole-of-economy risks to financial system security, which will impact institutional investors that operate across sectors. It is important that the Australian Government considers a bottom-up and top-down approach to solving budding market problems that are both exacerbating and being exacerbated by climate change.
	<ul> <li>IGCC recommends that the Authority provide advice on how to scale support for innovations that encourage and support property owners to undertake adaptation and mitigation efforts.</li> </ul>
14. What else should the	To reiterate, Australia cannot afford to be cautious.
authority be considering in its advice to government?	Australia has an opportunity to be bold, not because it should, but because it must. It is essential to wrestle back the capital that is otherwise being drawn to international jurisdictions with more established national economic policies and strategies.
	The purpose behind a target is not just to meet it, it is to drive ambition and innovation. IGCC would urge the Authority recommend to an ambitious target.
	The Government's target should extend beyond marginal decreases in carbon from established industries, and instead consider new innovation and disruption, capable of creating new, clean industries capable of realising Australia's "superpower" 'ambitions and harness our substantial people and economic strengths and opportunities.

#### Endnotes

<sup>1</sup> Australian Climate Service (2024). *National Climate Risk Assessment*. Government of Australia. https://www.acs.gov.au/pages/national-climate-risk-assessment

<sup>2</sup> Lawrence, J., B. Mackey, F. Chiew, M.J. Costello, K. Hennessy, N. Lansbury, U.B. Nidumolu, G. Pecl, L. Rickards, N. Tapper, A. Woodward, and A. Wreford. (2022). Australasia. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability.* Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1581–1688, doi:10.1017/9781009325844.013. https://www.ipcc.ch/report/ar6/wg2/chapter/chapter-11/

<sup>3</sup> Australian Retirement Trust (2024). *Sustainable investment report 2022-2023.* ART. https://cdn.australianretirementtrust.com.au/library/media/pdfs/reports/sustainable-investment-report-2023.pdf?rev=784936fc071c4ed78d74cb4e71620ab4

<sup>4</sup> AustralianSuper (2023). *Climate change report*. AustralianSuper. <u>https://www.australiansuper.com/-/media/australian-super/files/investments/how-we-invest/climate-change/2023-climate-report.pdf</u>

<sup>5</sup> Aware Super (2023). *Climate transition plan 2023*. Aware Super. https://aware.com.au/content/dam/aware/au/en/documents/member/reports/investment/climate-changetransition-plan-2023.pdf

<sup>6</sup> CareSuper (2023). *Getting to net zero by 2050*. CareSuper. https://www.caresuper.com.au/sites/default/files/2023-03/cs\_netzero2050\_vfinal-20230317.pdf

<sup>7</sup> HESTA (2023). *Our path to net zero*. HESTA. https://www.hesta.com.au/content/dam/hesta/Documents/2023-climate-change-report.pdf

<sup>8</sup> NGFS (2023). *NGFS scenarios for central banks and supervisors*. https://www.ngfs.net/sites/default/files/medias/documents/ngfs climate scenarios for central banks and sup ervisors phase iv.pdf

<sup>9</sup> NGFS (2020). The macroeconomic and financial stability impacts of climate change research priorities. NGFS. <u>https://www.ngfs.net/sites/default/files/medias/documents/ngfs\_research\_priorities\_final.pdf</u>

<sup>10</sup> REST (2022). *Sustainability, responsible investment and climate change supplement*. REST. https://rest.com.au/rest\_web/media/documents/why-rest/about-rest/sustainability/rest-sustainabilityresponsible-investment-climate-change-supplement-2022.pdf

<sup>11</sup> For example, the decade long history of the Australia Government's emissions projections consistently underestimating real-world abatement actions.

<sup>12</sup> See for example on the ongoing declines in community support for the transition: SEC Newgate. (2024). *Mood of the Nation - April 2024*.

https://secnewgateengage.com.au/mood-of-the-nation-april-2024-summary/

<sup>13</sup> For example, the need for this sort of customer-centric approach is embedded in the Australian Energy Regulator's Better Resets handbook, used by electricity networks to develop their five-year price and service plans – particularly as the costs are borne by taxpayers in their bill. The guidebook doesn't explicitly mention deliberative techniques but describes the characteristics of the approaches they value. As such, deliberative approaches are common practice amongst electricity networks: https://www.aer.gov.au/industry/registers/resources/guidelines/better-resets-handbook-towardsconsumer-centric-network-proposals

<sup>14</sup> Climate Change Act (2022), Part 4:

- Must make provisions for public consultation for annual climate statements in 14(3)(3A),
- Must make provision for public consultation on advice on Targes/NDCs in 15(3),
- Explanatory memorandum spells it that target consultations needs to be significant and broad based, given the significant impact of the targets and associated policies across the economy and in many key economic sectors.

<sup>15</sup> Climate Analytics (2019). Evaluating the significance of Australia's global fossil fuel carbon footprint: <u>https://ca1-</u> clm.edcdn.com/assets/australia\_carbon\_footprint\_report\_july2019.pdf

<sup>16</sup> Deloitte (2021) *Asia Pacific Turning point*. <u>https://www.deloitte.com/global/en/issues/climate/asia-pacific-</u> turningpoint.html?icid=learn\_more\_content\_click

<sup>17</sup> EY (2023). The energy superpower opportunity: Can Australia seize the advantage in a net zero world? https://www.ey.com/en\_au/sustainability/the-energy-superpower-opportunity

<sup>18</sup> NGFS (2023). NGFS scenarios for central banks and supervisors. https://www.ngfs.net/sites/default/files/medias/documents/ngfs climate scenarios for central banks and sup ervisors phase iv.pdf

<sup>19</sup> Kotz, M., Levermann, A. and Wenz, L. (2024). 'The economic commitment of climate change', *Nature*, 628(8008), pp. 551–557. doi:10.1038/s41586-024-07219-0

<sup>20</sup> IGCC (2023). *Mobilising Climate Investment in Emerging Markets*: <u>https://igcc.org.au/wp-</u> content/uploads/2023/05/Mobilising-Climate-Investment-in-Emerging-Markets\_FINAL.pdf

<sup>21</sup> IGCC (2024). Climate Policy Improves Investment Confidence – Australia's institutional capital market, Policy brief: <a href="https://igcc.org.au/wp-content/uploads/2024/03/FINAL-IGCC-Net-zero-survey-2024-policy-media-brief.pdf">https://igcc.org.au/wp-content/uploads/2024/03/FINAL-IGCC-Net-zero-survey-2024-policy-media-brief.pdf</a>

<sup>22</sup> IGCC (2024). *Climate Policy Improves Investment Confidence – Australia's institutional capital market*, Policy brief: https://igcc.org.au/wp-content/uploads/2024/03/FINAL-IGCC-Net-zero-survey-2024-policy-media-brief.pdf

<sup>23</sup> IGCC (2023). Decarbonisation investment solutions for sectors: A discussion paper on Sector Transition Plans and their importance to investors: <a href="https://igcc.org.au/investable-sector-climate-plans-are-crucial-to-clean-energy-competitiveness/">https://igcc.org.au/investable-sector-climate-plans-are-crucial-to-clean-energy-competitiveness/</a>

<sup>24</sup> IGCC (2024). *Climate Policy Improves Investment Confidence – Australia's institutional capital market*, Policy brief: https://igcc.org.au/wp-content/uploads/2024/03/FINAL-IGCC-Net-zero-survey-2024-policy-media-brief.pdf

<sup>25</sup> Push mechanisms include:

- Climate-related targets
- Setting priorities by sector and sub sector e.g. a 2035 renewable energy target, addressing transmission bottle necks and social licence for new infrastructure
- Loans and grants for projects and start-ups, public equity or government backed venture capital

- Large-scale demonstration projects
- Public-private partnerships
- Funding workforce development and education e.g. tying apprenticeships to PPAs, improving on-site conditions for renewables projects
- Funding research facilities
- Corporate R&D tax incentives
- Public financing mechanisms to mobilise private capital e.g. bridging the capital gap between ARENA and the CEFC (which operates closer to commercialisation).

<sup>26</sup> Pull mechanisms include:

- Targets and standards including sustainable investment schemes and taxonomies
- Targeted subsidies and direct public funding that leverage private investment<sup>11</sup>
- Product standards that ratchet in ambition e.g. vehicle and energy efficiency standards, zeroemissions product certifications
- Public private partnerships in enabling infrastructure for nascent technologies
- Regulatory requirements to support low-carbon businesses
- Sustainable public procurement
- Stable, durable and consistent policies

<sup>27</sup> Enabling conditions include:

- A well-functioning patenting and publication system
- Knowledge-sharing networks where breakthroughs in one technology improve the research development of other technologies
- Genuine community consultation to ensure the benefits of transition to secure social buy-in

<sup>28</sup> IGCC (2023). *Driving Australian Climate Innovation*, White Paper: <u>https://igcc.org.au/wp-</u> content/uploads/2023/04/Full-Report-IGCC-Funding-an-Australian-Climate-Tech-Boom.pdf

<sup>29</sup> IGCC (2023). *Driving Australian Climate Innovation*, White Paper: <u>https://igcc.org.au/wp-</u> content/uploads/2023/04/Full-Report-IGCC-Funding-an-Australian-Climate-Tech-Boom.pdf

<sup>30</sup> Kreibiehl, S., T. Yong Jung, S. Battiston, P. E. Carvajal, C. Clapp, D. Dasgupta, N. Dube, R. Jachnik, K. Morita, N. Samargandi, M. Williams, 2022: Investment and finance. In IPCC, 2022: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change[P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.017

<sup>31</sup> See for example: Paris Aligned Investment Initiative (2021). *Net Zero Investment Framework 1.0*: https://139838633.fs1.hubspotusercontenteu1.net/hubfs/139838633/Past%20resource%20uploads/Net\_Zero\_Investment\_Framework\_Implementation% 20Guide\_Final.pdf

<sup>32</sup> See for example: Ethical Partners (2024). *Credible Transition Plan Framework*: <u>https://assets-global.website-</u> files.com/5b4d31c5e11a78eff0022917/65efc08fa4fbb3b130ffcf89 Ethical%20Partners Credible%20Transition% 20Framework.pdf

<sup>33</sup> Rewiring Australia (2024). Electrify Everything Loan Scheme (EELS): https://www.rewiringaustralia.org/eels

<sup>34</sup> Lawrence, J., B. Mackey, F. Chiew, M.J. Costello, K. Hennessy, N. Lansbury, U.B. Nidumolu, G. Pecl, L. Rickards, N. Tapper, A. Woodward, and A. Wreford. (2022). Australasia. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability.* Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1581–1688, doi:10.1017/9781009325844.013. https://www.ipcc.ch/report/ar6/wg2/chapter/chapter-11/

<sup>35</sup> IGCC (2024). *Financial Stability at Risk: Australian Government's Climate Risk Assessment:* https://igcc.org.au/financial-stability-at-risk-australian-governments-climate-risk-assessmentconfirms/

<sup>36</sup> IGCC (2023). Submission: Independent Review of the Australian Climate Service: <u>https://igcc.org.au/wp-content/uploads/2023/12/IGCC\_ACS\_Submission\_Dec23.pdf</u>

<sup>37</sup> IGCC (2024). *Submission: National Adaptation Plan Issues Paper*: <u>https://igcc.org.au/wp-</u> content/uploads/2024/04/IGCC\_NAP\_Submission\_10April24.pdf

<sup>38</sup> IGCC (2024). *Submission: National Adaptation Plan Issues Paper*: <u>https://igcc.org.au/wp-</u> content/uploads/2024/04/IGCC\_NAP\_Submission\_10April24.pdf

<sup>39</sup> IGCC (2023). *Road to Resilience: An investor action plan for an adaptive and sustainable economy:* https://igcc.org.au/road-to-resilience-an-investor-action-plan-for-an-adaptive-and-sustainableeconomy/

<sup>40</sup> IGCC (2023). *Investor Expectations: National Climate Risk Assessment*: <u>https://igcc.org.au/wp-</u> content/uploads/2023/07/Briefing-Investor-Expectations-National-Climate-Risk-Assessment.pdf

<sup>41</sup> IGCC (2023). Investing in Australia's Vital regions: Investor perspectives on how to leverage private capital to transform Australia's emissions-intensive regional economies and deliver a just transition: <a href="https://igcc.org.au/wp-content/uploads/2023/10/IGCC-Investing-in-Australias-Vital-Regions Report 2023">https://igcc.org.au/wp-content/uploads/2023/10/IGCC-Investing-in-Australias-Vital-Regions Report 2023</a> online.pdf

<sup>42</sup> IGCC (2023). Investing in Australia's Vital regions: Investor perspectives on how to leverage private capital to transform Australia's emissions-intensive regional economies and deliver a just transition: <u>https://igcc.org.au/wp-</u> content/uploads/2023/10/IGCC-Investing-in-Australias-Vital-Regions Report 2023 online.pdf

<sup>43</sup> Minister for Emergency Management (2024). *Government-funded app delivers insurance savings*: https://minister.homeaffairs.gov.au/MurrayWatt/Pages/gvt-funded-app-delivers-insurancesavings.aspx#:~:text=Joint%20release%20with%20Resilient%20Building,two%20of%20Australia's%20largest% 20insurers.