

2035 Climate Initiative

Roundtable One

30 November 2022, 4pm–5.30pm AEST

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Agenda

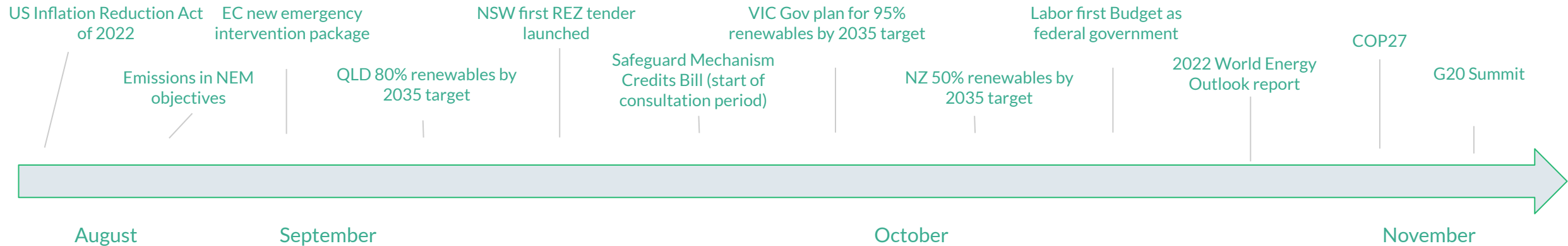
Time	Agenda Item
4.00PM	Welcome and introductions <i>Andrew Hudson (Centre for Policy Development)</i>
4.05PM	Introduction to the 2035 Climate Initiative <i>Anna Skarbek (Climateworks Centre)</i>
4:15PM	Pathways to 2035 <i>Opening remarks from Bill Hare and Michael Battaglia</i>
5.05PM	Reflections on COP27
5.25PM	Conclusions
5:30pm	Close

Participant list

Name	Position and Affiliation
Hannah Armitage	Research Manager, ACSI
Brad Archer	CEO, Climate Change Authority
Chris Barrett	Deputy Secretary, Economic Division, VIC Department of Treasury and Finance
Dr Michael Battaglia	Mission Lead, Towards Net Zero, CSIRO
Karen Chester	Deputy Chair, ASIC
James Chisholm	First Assistant Secretary, Industry, Infrastructure and Environment Division, DPMC
Jo Evans	Deputy Secretary, Climate Change and Energy Innovation, Commonwealth DCCEEW
Elizabeth Fellows	Executive Director, Climate Action and Sustainable Planning, QLD Department of Environment and Science
Sarah Gill	Director, Climate Change, WA Department of Water and Environmental Regulation
Alison Goodwin	Mining & Energy Union
Bill Hare	CEO, Climate Analytics
Emma Herd	Partner, EY
Andrew Hudson	CEO, CPD
Sam Hurley	Director - Markets Group, Commonwealth Treasury
Erwin Jackson	Director, Policy, IGCC
Eytan Lenko	CEO, Boundless Earth
Donna Looney	Head of Industry Growth Division, Commonwealth Department of Industry, Science and Resources
John Lydon	Co-Chair, Australian Climate Leaders Coalition

Name	Position and Affiliation
Courtney Miller	Executive Director, Next Generation
Sam Mostyn	President, Chief Executive Women
Kelly O'Shanassy	CEO, Australian Conservation Foundation
Rachel Parry	Deputy Secretary, Energy and Climate Change, NSW Treasury
Owen Pascoe	Director - Research, CEFC
Tennant Reed	Head of Climate, Energy and Environment Policy, Ai Group
Kath Rowley	Head of Climate Change Division, Commonwealth DCCEEW
Don Russell	Independent Chair, AustralianSuper
Daniel Sherrell	Australian Council of Trade Unions
Brett Shoemaker	Chief Sustainability Officer, Microsoft ANZ
Gretta Stephens	Chief Executive Climate Change & Sustainability, BlueScope
Anna Skarbek	CEO, Climateworks Centre
Susie Smith	CEO, Australian Industry Greenhouse Network
Christina Tonkin	Managing Director, Corporate Finance for Institutional Banking, ANZ
Zoe Whitton	Executive Director, Pollination Group
Innes Willox	CEO, Ai Group
Kate Wilson	Executive Director, Climate Change and Sustainability, NSW Department of Planning and Environment
Luke Yeaman	Deputy Secretary, Macroeconomic Group, Commonwealth Treasury
Richard Yetsenga	Chief Economist, ANZ

The past few months have seen major developments in Australia and around the world



International

- **US Inflation Reduction ACT** tightens tax loopholes with revenues for climate action, drought relief and the Affordable Care Act.
- European Commission announces **emergency intervention package**: caps on “infra-marginal” producers and electricity consumption reduction.
- NZ introduces a **50% renewables for final energy consumption by 2035** target.
- The **2022 World Energy Outlook** flags, for the first time, demand peaks for fossil fuels in all scenarios.
- **COP27** takes place in Sharm El Sheikh, Egypt.
- The **G20 summit** occurs in Bali, Indonesia.

Australia

- Energy ministers agree for **emissions to be in NEM objectives**.
- Queensland commits state to **80% renewable energy target by 2035**.
- NSW launches **state’s first REZ tender**.
- Federal Government commences consultation on **Safeguard Mechanism Credits Bill**.
- VIC Gov announces plan for **95% renewables by 2035** if re-elected.
- **Federal Government’s Budget** mentions climate change 220 times with large-scale investments in renewables and green skills.

Introduction to the 2035 Climate Initiative (2035 CI)

Why are we here? 2035 CI aims

The world is committed to limiting global warming to 1.5°C, and this will require deep structural change.

Australia's 2030 target is a good start – but we need to also grapple with trade-offs on the pathway to deep decarbonisation.

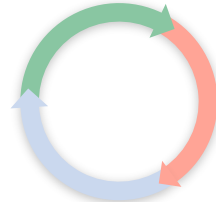
Achieving emissions reductions beyond 43% will be complicated by worsened physical impacts, supply chain shocks, and industrial reorganisation.

Australia's 2035 emissions reduction goals are due to be registered under the Paris Agreement in 2025, just three years after submission of the updated 43% NDC.

These goals will need to be more ambitious than Australia's current NDC target to ensure Australia has an orderly transition to net zero emissions in line with keeping the global temperature increase to 1.5°C.

The 2035 CI will track alongside a critical policy formation process, focusing on the changes needed to achieve decarbonisation in line with Australia's 2035 NDC.

From the Climate & Recovery Initiative to the 2035 Climate Initiative...



2035CI

The Climate & Recovery Initiative:

- CRI was established in early 2020 to bring together economic leaders to ensure economic response to COVID-19 was aligned with the net zero emissions transition.
- Over 9 roundtable meetings, we forged a space for consensus-building around the great economic challenges of our day.

The rationale for change:

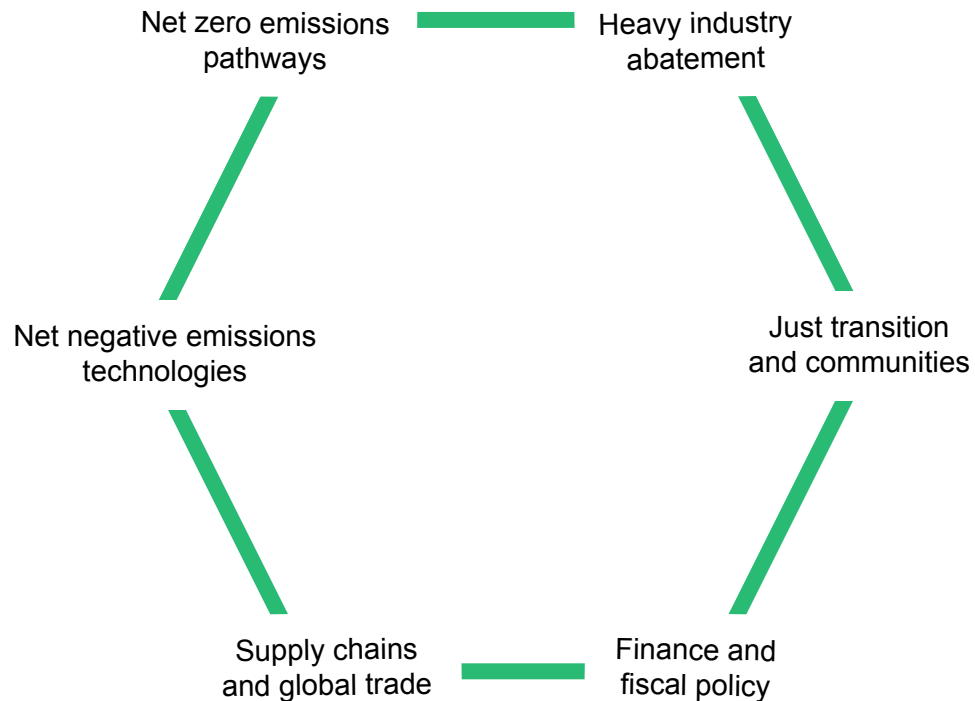
- As the immediate impacts of COVID-19 dissipated and the Australian economy shifted from a recessionary to inflationary state, a review was conducted with regular participants to ensure the group remains relevant to contemporary challenges.
- A clear view was formed that participants want a new mandate for the group: a forward-facing agenda with a targeted aim.

The 2035 Climate Initiative:

- Planning and thinking for the climate challenges of the next decade is a fundamental gap in the current policy landscape.
- The Australian Government will submit its 2035 emissions reduction goal under the Paris Agreement in 2025.
- Many state governments are implementing or considering similar goals.
- Corporate targets for 2035 are increasingly on the agenda of boards and shareholders.

We need to better understand the biggest economic challenges of the next decade

Possible themes for the 2035 CI in 2023...



Net zero emission pathways spell out clear trajectories for the global economy, what are the implications for Australia?

Heavy industry abatement and other hard-to-abate sectors will be particularly exposed to transition risks beyond this decade.

Just transition has primarily focussed on workers, but other parts of the community bear costs of a rapid transition to net zero (eg. flood-affected homeowners).

Financing and fiscal policy – both corporate investors and government revenue streams – need to adapt for the major global transition.

“Net negative” emissions technologies will be essential for the whole economy to reach net zero; can we devote the resources to make this a reality?

Supply chains and global trade will look completely different in 2035, and Australia needs to grapple with strategic trade-offs in its position.

Pathways to 2035

Current NDC commitments will not secure the emissions reductions needed to achieve the Paris Agreement

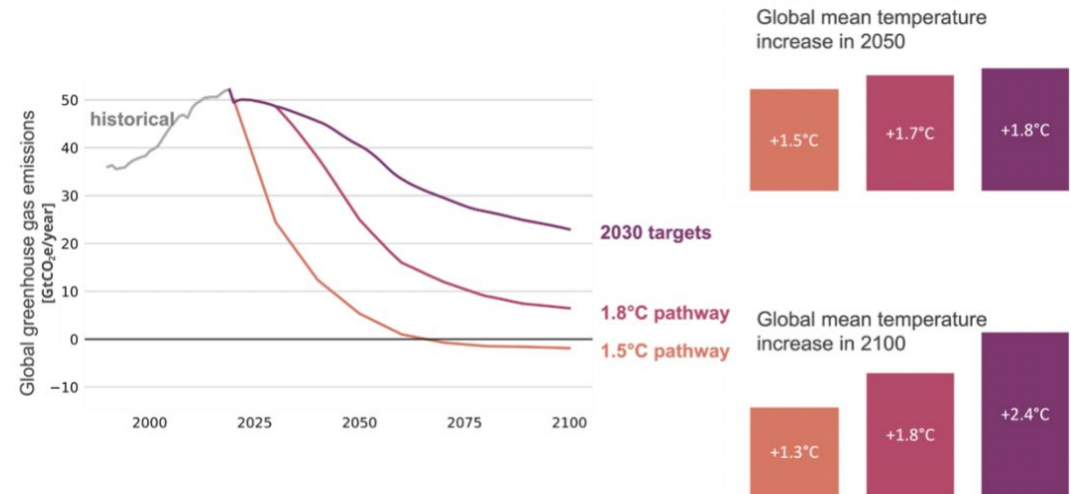
The current NDC target for Australia is to reduce GHG emissions by 43% below 2005 levels by 2030.

Based on Climateworks scenario modelling, 43% by 2030 is not fully aligned with a well below 2°C pathway. 48-54% is needed to be more confidently on track towards net zero by 2050.

Existing net zero commitments by countries around the world could possibly limit global warming to 1.8°C by 2100, without strengthening current NDC targets. However, these outcomes are based on optimistic assumptions about long-term actions. If these actions do not eventuate, the world is on track to reach 2.4°C of warming by the end of the century.

The Paris Agreement is a commitment to pursue efforts towards the long-term temperature goal of 1.5°C. If leaders are serious about this goal, we can expect more significant policy and investment changes in the coming years to keep 1.5°C within reach.

The world is heading for 2.4°C to 2.8°C warming based on targets *ahead of COP27*

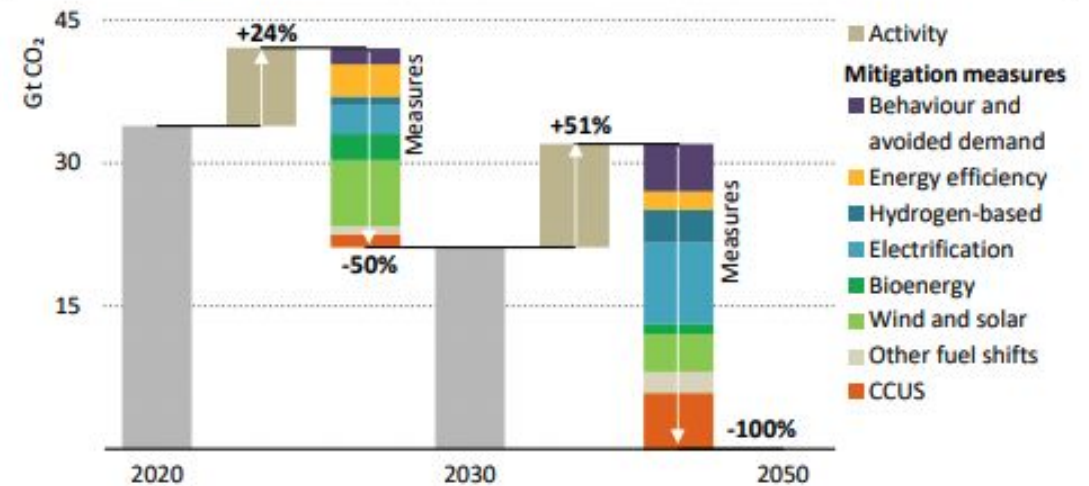


The net zero transition beyond this decade requires large-scale, whole-of-economy changes

In most models, the period beyond this decade assumes increasingly substantial shifts in technology and economic patterns, in order to achieve net-zero goals.

- In industry, emissions reductions are particularly reliant on assumed CCUS and hydrogen technology, especially in heavy industries such as steel, cement and chemicals.
- Energy consumption in the buildings sector decreases due to continued electrification and efficiency improvements.
- There will be shifts in transportation, with stringent fuel-economy standards and the phase out of internal combustion engines in favour of electric vehicles.
- aviation and shipping will likely switch from fossil fuels to renewables based fuels in 2030-2040 – requiring massive industries to be established to provide renewable fuel feedstock.
- Gas is the last fossil fuel to be replaced in all models.
- Increased reductions in methane emissions are achieved in relevant industries e.g. agriculture, and wastewater.

Emissions reductions by mitigation measure in the IEA's Net Zero Emissions by 2050 (NZE) scenario



IEA. All rights reserved.

Solar, wind and energy efficiency deliver around half of emissions reductions to 2030 in the NZE, while electrification, CCUS and hydrogen ramp up thereafter

Source: [IEA, 2021](#)

To achieve net zero by 2050, there is a need for rapid and large-scale changes in all sectors of the economy by 2035

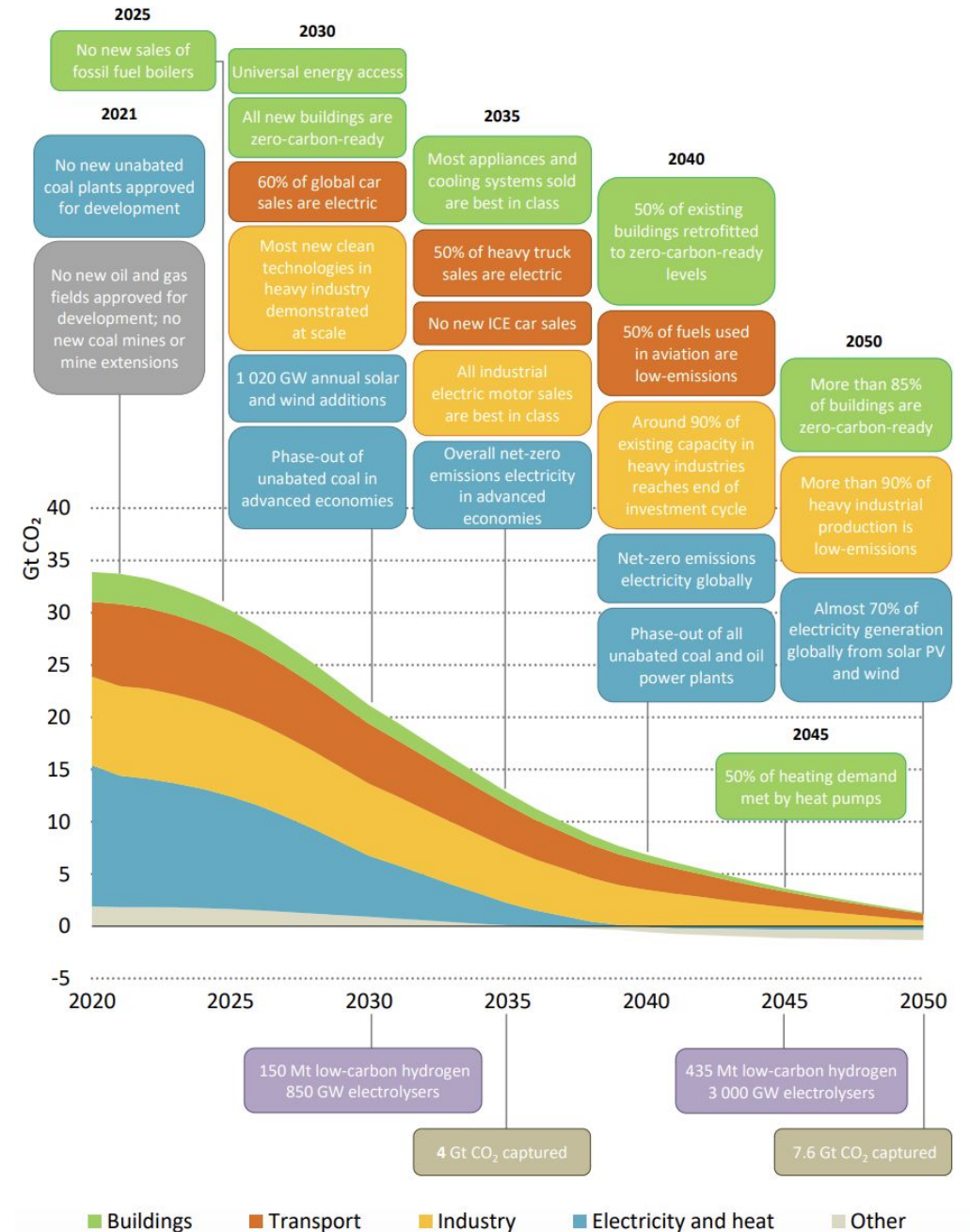
By the middle of the next decade, key changes will need to occur to keep on track for the IEA's Net Zero 2050 scenario, including:

Buildings: Most appliances and cooling systems sold are best-in-class

Transport: No new passenger internal combustion engine cars sold globally; 50% of heavy truck sales are electric

Industry: All industrial electric motor sales are best-in-class; nearly all additions to heavy industry capacity are low-emissions

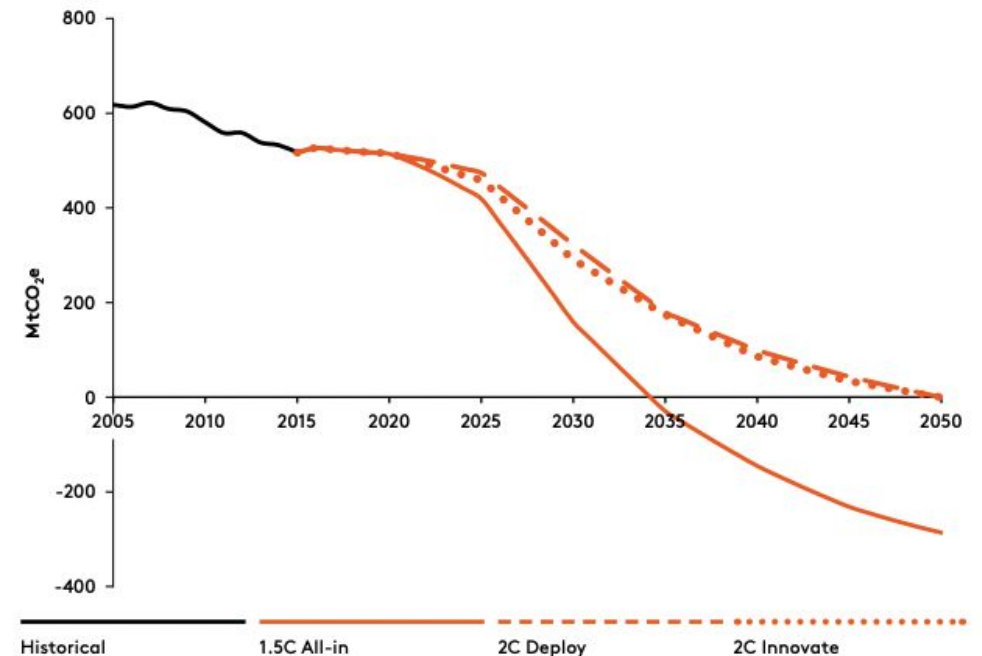
Electricity and heat: Advanced economies will need to achieve net zero emissions in electricity generation



In a 1.5°C scenario, Australia will need to reach net zero emissions by 2035; a step change is needed

- In Climateworks Centre's modelled scenario from Decarbonisation Futures that aligns with keeping temperature rise below 1.5°C, Australia reaches net zero by 2035. In this scenario, electricity generation also reaches zero emissions around 2035.
- In the IEA's Net Zero Emissions by 2050 scenario, the electricity sector reaches zero net emissions in advanced economies by 2035.
- Australia is not currently on track for either of these scenarios.

FIGURE 3.3: Overall annual net emissions in the modelled scenarios (2005-2050)



Source: [ClimateWorks Centre, 2020](#)

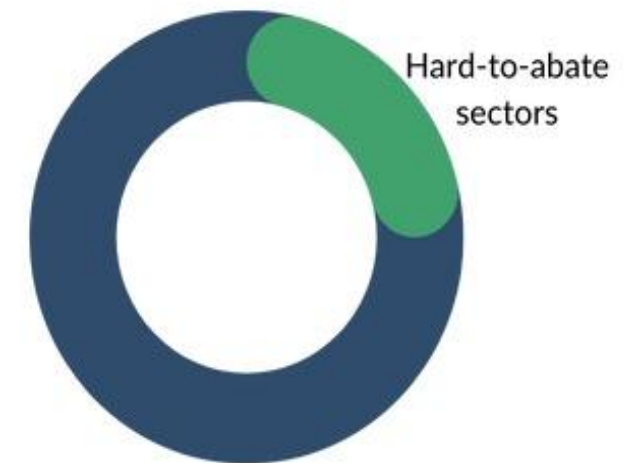
Current national strategies focus on low-hanging fruit such as increases in renewables; the world will increasingly need to consider the hard-to-abate sectors

“Hard-to-abate” sectors are those without a credible path to net zero emissions. There may be solutions available for decarbonisation, but these are either cost-prohibitive or rely on assumptions about additional abatement technologies that do not currently exist.

THE BIGGEST CHALLENGE IN MEETING THE PARIS AGREEMENT LIES IN THE MAJOR HARDER-TO-ABATE SECTORS



Australian GHG emissions



Source: [Energy Transitions Commission, 2018](#)

On current trends, emissions from hard-to-abate sectors could account for 16Gt by 2050 (around 50% of current total global CO₂ emissions). As the rest of the economy decarbonises, they would be a growing share of emissions.

Hard-to-abate sectors represent more than a quarter of Australia's annual greenhouse gas emissions and approximately \$160 billion in annual exports.

COP27

There was little progress on climate change action at COP27

The “phase out” stalls

Overall, while COP27 did not worsen agreements in the Glasgow Pact, language in the draft decision from COP27 does not demonstrate clear advancement on the transition to net zero.

A proposal to phase out all fossil fuels, rather than only “unabated coal” (as per COP26), was not unanimously adopted.

Members of the Gas Exporting Countries Forum promoted the use of gas as a transition fuel. Behind closed doors, countries including Saudi Arabia and Russia argued that emissions rather than oil cause climate change.

The final text promotes both renewables and “low-emissions” energy. “low emissions” remains contested in its meaning, and while most argue it encompasses nuclear and CCS, some have attempted to expand the definition to gas.

Progress on loss & damage, carbon trading, and nature

After many years of small island states and poorer countries calling for compensation for the impacts of climate change, wealthy nations agreed to establish a fund to respond to loss and damage in vulnerable countries at COP28.

However, the fund has not established:

- Who will pay for it?
- Who will benefit from it – which countries are “particularly vulnerable developing countries”?

Negotiators also filled in some details of the broad framework for a new global carbon trading scheme announced at Glasgow.

Nature-based solutions, forests and oceans have featured in the final text explicitly for the first time which sets an important precedent.

At the same time, progress on climate change was made at the G20 summit in Indonesia

G20 Bali Leaders' Declaration

Climate change was widely discussed in the Declaration, including in terms of both scaling up action, e.g.

“We will rapidly scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency, abatement technologies as well as removal technologies, taking into account national circumstances.”

And identifying risks associated with climate change to economic systems:

“We acknowledge the macro-economic risks stemming from climate change and will continue discussions on the costs and benefits of different transitions.”

The Declaration commits to pursuing efforts to limit temperature increases to 1.5°C compared to pre-industrial levels.

Source: [The White House. 2022](#)

Indonesia coal phase-out

Indonesia launched its Energy Transition Mechanism (ETM) Country Platform, which is a coordination and delivery mechanism to drive a just and affordable energy transition for the country.

The ETM Country Platform will include:

- A Carbon Reduction Facility scheme to retire coal-fired power plants early in Indonesia; and,
- A Clean Energy Facility scheme to develop or reinvest green energy facilities.

Indonesia and the International Partners Group also launched the Indonesian Just Energy Transition Partnership. The partnership will mobilise US\$20 billion over the next 3-5 years to help Indonesia pursue an accelerated just energy transition.

In return, Indonesia commits to developing an investment and action plan over the next six months, which includes deploying renewable energy resources and decommissioning coal-fired generators.

Source [Euractiv. 2022](#)