2035 Climate Initiative

Roundtable two: financial systems and capital markets

4 April 2023, 2pm–3.30pm AEST

Contact: Mara Hammerle, Economic Advisor, CPD
mara.hammerle@cpd.org.au

CENTRE FOR POLICY DEVELOPMENT

Climateworks CENTRE

AiGROUP

ACTU australian council of trade unions

POLLINATION

Agenda

Time	Agenda Item
2.00PM	**Welcome and introductions** Anna Skarbek *(Climateworks Centre)*
2.05PM	**What will capital markets look like in 2035?** *Opening remarks from* Zoe Whitton *(Managing Director, Head of Impact, Pollination)*
2:45PM	**What practical actions can we take now, on the path towards 2035?** *Opening remarks from* Danny Kennedy *(Managing Director, California Clean Energy Fund)*
3.25PM	**Conclusions** Andrew Hudson *(Centre for Policy Development)*
3:30PM	**Close**

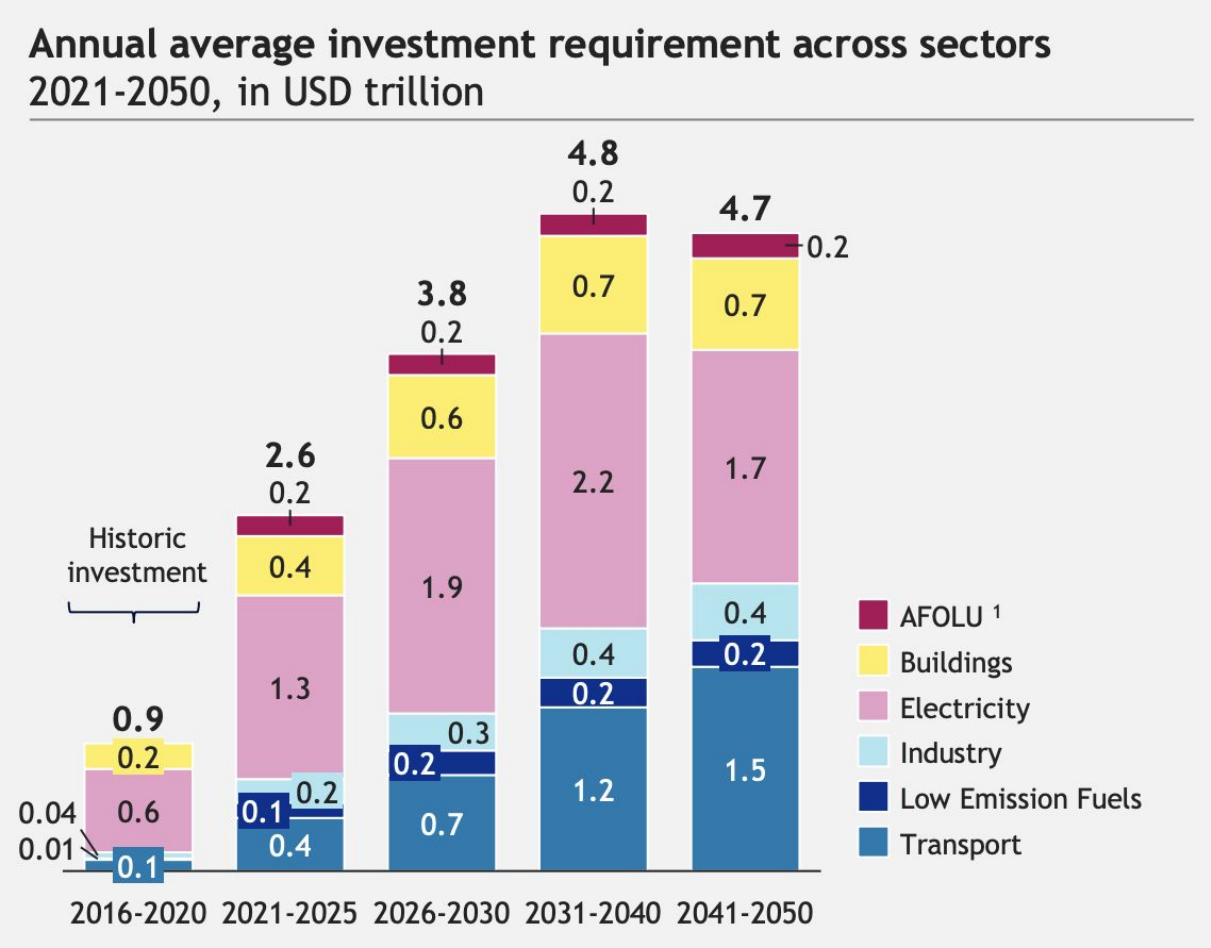
Participant list

Name	Position and Affiliation
Andrew Hudson	CEO, Centre for Policy Development
Anna Skarbek	CEO, Climateworks Centre
Arjuna Dibley	Head of Sustainable Finance Hub, Uni of Melbourne
Blair Palese	Director, Ethinvest Philanthropy
Brad Archer	CEO, Climate Change Authority
Carl Schwartz	Deputy Head in Domestic Markets Department, RBA
Chris Barrett	Deputy Secretary, VIC Treasury
Christina Tonkin	Managing Director, Corporate Finance
Danny Kennedy	Chief Energy Officer, New Energy Nexus
Dan Sherrell	Senior Climate Advisor, ACTU
Don Russell	Chair, Australian Super
Edmund Bosworth	Principal, Deloitte
Emma Herd	Partner, EY
Frank Jotzo	Director, Centre for Climate and Energy Policy, ANU
Graham Sinden	Head of Climate Risk, APRA
Guy Debelle	Board member, Fortescue Future Industries
Heidi Lee	CEO, Beyond Zero Emissions
Innes Willox	CEO, AI Group
Jo Evans	Deputy Secretary, DCCEEW
John Lydon	Co-chair, Australian Climate Leaders Coalition
Kara Frederick	Founder & Managing Director, Tiger Financial Group
Karen Chester	Deputy Chair & Commissioner, ASIC

Name	Position and Affiliation
Kate Griffiths	Executive Manager, Research and Policy, ACSI
Kath Rowley	First Assistant Secretary, DCCEEW
Kaylene Gulich	CEO, Western Australian Treasury Corporation
Kristy Graham	Executive Officer, Australian Sustainable Finance Institute (ASFI)
Kylie Turner	Systems Lead, Climateworks
Lachlan Creswell	Executive Director, Macquarie Group
Lisa DiPaolo	Climate Manager, Treasury WA
Michaela Morris	Head of Program Delivery, Climateworks Centre
Michele O'Neil	President, ACTU
Natasha Morris	Managing Director, Responsibility and Impact, Adamantem Capital
Owen Pascoe	Director - Research, Clean Energy Finance Corporation
Rebecca Mikula-Wright	CEO, Investor Group on Climate Change
Sam Mostyn	Chair, Aware Super
Sarah Gill	Director, Climate Change Division, WA Department of Water and Environmental Regulation
Sam Hurley	Director, Commonwealth Treasury
Tennant Reed	Head of Climate, Energy and Environment Policy, AI Group
Thomas Dillon	Head of ESG - Sovereign, Aviva Investors
Tim Reed	President, Business Council of Australia (BCA)
Toby Phillips	Program Director, Centre for Policy Development
Warren Tease	Chief Adviser Financial Markets, Commonwealth Treasury
Zoe Whitton	Managing Director, Pollination Group

Financial systems and capital markets in 2035

Investments in decarbonisation likely to quintuple by 2031-40 (compared to 2016-20)



[1] Agriculture, forestry and other land uses
GFANZ, 2021

Financial markets will need to adapt to the changes in the real economy that we know are coming. Already, investors are divesting from carbon-intensive activities, placing pressure on organisations to change their practices. Large-scale initiatives are also being developed that will affect how capital is allocated going forward, including:

- Inflation Reduction Act, USA: ~A$580 billion
- EU Green Deal (~A$1 trillion exclusively from public sources (with some private sector co-funding))/ European Commission proposed Net-Zero Industry Act
- Indonesia's Just Energy Transition Partnership: ~A$15 billion pledged to come from the public sector

International markets are racing ahead in developing the financial systems needed for the net zero transition. For example, other countries are dedicating larger amounts of funding to the transition, while their central banks actively consider how to incorporate climate change considerations into monetary policy frameworks including by tilting corporate bond holdings towards issuers with better climate performances.

European countries are signing contracts with African countries for green ammonia and hydrogen. In coming years, investors will be seeking to capture a share of the funds from initiatives like the Inflation Reduction Act. As Australian pools of capital have a strong home bias, their tendencies will be influenced by whether Australia adopts a large long-term investment and industrial strategy.

The question is:

How do we ensure Australian investors are best positioned to drive and benefit from a net zero transition?

While there is sufficient global capital, barriers remain in allocating capital to clean, investable projects

"There is sufficient global capital and liquidity to close global investment gaps, given the size of the global financial system, but there are barriers to redirect capital to climate action both within and outside the global financial sector.

IPCC, Working Group III, 2022

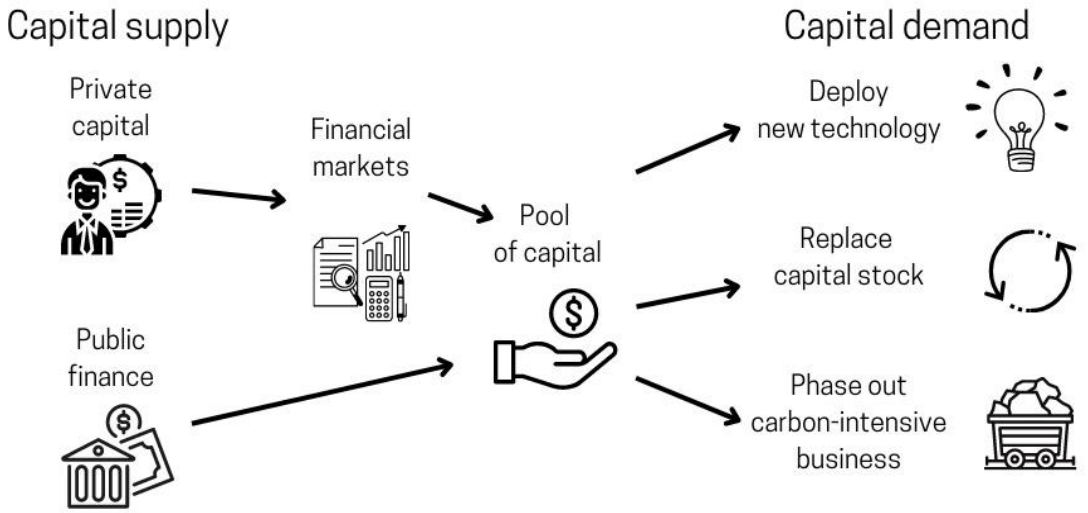
Currently, there is:

- Imperfect matching of capital supply and demand, due to:
  - Lots of financial capital, but
  - Arguably insufficient economically viable projects (fiduciary duties require investors to make financial returns, based on current risk frameworks).

→ This creates a large finance gap in available funding for green investments

→ This means there needs to be changes in regulatory environments, incentives, and risk frameworks

The role of financial markets in allocating capital towards a net zero transition



By 2035, capital markets and financial systems will have undergone considerable changes

Changes in the types and quantity of information available

A high degree of international standardisation, including standardised taxonomies and terminology

All firms are likely to have sophisticated reporting mechanisms in place, likely based on International Sustainability Standards Board (ISSB) for disclosure and reporting. TCFD and TNFD standards will likely merge into ISSB standards, providing clarity for businesses on which standards to follow.

Investors are increasingly making calls for reliable reporting frameworks that allow for comparable climate and other ESG reporting.

Publication of green capital weightings – enabling allocation of capital based on climate impact – may be widespread

Changes in perceptions of the regulated goals of financial market participants

Asset managers will likely take a longer-term view to investment, moving towards embracing the opportunities of the transition.

Green banks and government investors (like the CEFC) may be better equipped to invest in riskier clean economy ventures, rather than being strictly expected to generate excess returns.

Interests of investors and other stakeholders will be seen as positively related: *"Long-term financial advantage will more likely follow if the entity conducts its business according to proper standards, treats its employees well…" (Justice Haynes, Banking Royal Commission)*

Double materiality may be standard, or at least much more adopted, in financial reporting.

Improved ways of accounting for different types of capital stocks

There may be different guiding themes and ideas around value that direct where capital goes, including:

An emergence of regulated methods to account for different types of capital stock of an organisation, including financial, but also e.g. social capital and natural capital

Consequently, depletions in social and natural capital stocks will negatively impact an organisation's value

Natural capital accounting places an economic value on natural capital inputs, so that they can be expressed alongside other aspects of conventional accounting. This means that environmental factors can be expressed as assets on balance sheets, instead of as economic externalities.

Better internalisation of externalities

Rising carbon prices around the world

OECD data shows that the share of emissions covered by carbon prices is rising. Average explicit carbon prices from carbon taxes and emissions trading more than doubled over 2018–2021.

Coupled with Carbon Border Adjustment Mechanisms and other methods to adjust for consumption of overseas emissions

The EU's CBAM will be fully implemented as of 2026, while countries such as Canada and Japan are planning their own initiatives.

There will be increasingly less appetite for offsets – governments and investors will be more interested in real reductions. The Oxford Principles in terms of using offsets will be more readily followed.

To direct the necessary amount of capital to clean economy projects by 2035, there is a need to start acting now

We know that finance for decarbonisation needs to at least quintuple by 2031-40 compared to 2016-20 levels (GFANZ, 2021).

We know that a fast transition will be much less costly, in aggregate, than a slow transition (Way et al., 2022)

And we know that Australia can benefit from the transition, for example due to its strong renewable energy potential.

But in the short-term, it still costs more to be a first mover when technologies are not mature; the benefits of a fast transition are to society, not (necessarily) to the first movers

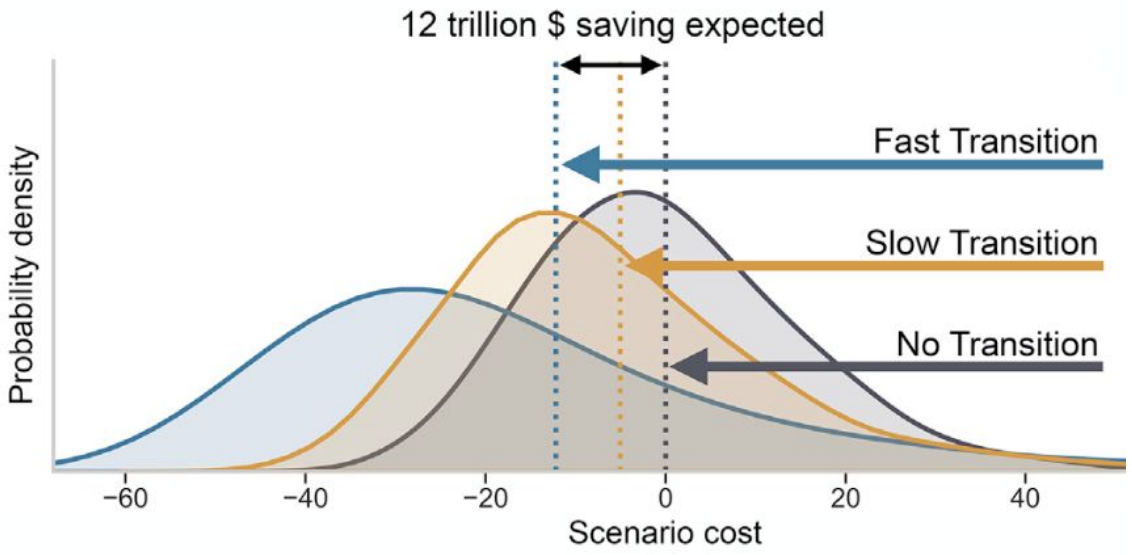
The question is:

What do we need to do now to start mobilising capital like it is 2035?

What actions can we take today, given the trajectory to 2035?

Big capital injections today will help new tech move down the cost curve, bringing even more projects online

Compared to a Slow Transition scenario, a rapid green energy transition worldwide is found to be cheaper at all reasonable discount rates. This is due to differences in time taken to move down technology cost curves.



Midpoint of a distribution is the average cost for that scenario (in net present value terms)
The area under the curve for each scenario shows the variability in estimated costs

Way et al., 2022

Governments and investors around the world are acting now to mobilise big investments in new technologies – a critical activity to deploy new tech at scale and bring it down the cost/learning curve.

For example, the USA's Iflation Reduction Act aims to reduce greenhouse gas emissions by 40% by 2030 compared to 2005 levels. The act includes several tax provisions and grant and loan programs to support deployment of commercially-available and innovative clean energy technologies. Programs include:

- **Clean Energy Production (PTC) and Investment (ITC) Tax Credits:** Tax credits for the production of electricity from renewable sources (PTC) or investment in renewable energy projects (ITC). Bonus credits are available for projects meeting social goals (eg. wage requirements or domestic sourcing).
- **Funding for a Greenhouse Gas Reduction Fund:** The Fund will award competitive grants to mobilize financing including private capital for clean energy and climate projects that reduce greenhouse gas emissions.
- **Loans for innovative clean energy projects:** Loans for innovative clean energy technologies, including renewable energy systems, carbon capture, nuclear energy, and critical minerals processing, manufacturing, and recycling.

Another focus will need to be on reducing risks related to investment in new markets

Governments have a key role to play in creating the enabling environment for private investment to occur by building investor confidence and reducing uncertainty to unlock investment in new markets.

"Governments can't finance this transformation themselves, but they can set policies that will unlock billions in private investment." (Rebecca Mikula-Wright, IGCC)

Offtake agreements to guarantee demand	*The consumer premiums on green solutions compared with high-emission alternatives result in uncertainty around their long-term revenue outlook and too much risk for most investors. Offtake agreements ensure demand is available to meet the supply.*
Regulatory frameworks for new industries	*Regulatory frameworks need to be available to support the emergence of new industries (eg. ammonia & hydrogen), by providing regulatory certainty to investors as to what will be expected of market proponents.*
Contracts for difference	*A long-term contractual agreement designed to provide the seller (e.g. of renewable electricity) with price certainty over the lifetime of the contract.*
Platforms that coordinate and blend funds from multiple sources	*Blended-finance platforms built on a common framework can reduce coordination and transaction costs and allow public and private investors to collaborate in a structured manner.*
Commitments to long-term environmental policies and regulations	*Predictability in governmental policies and regulations is critical to long-term investments and strategy formulations by businesses. Could include carbon pricing and commitments to phase-out fossil fuel subsidies.*
Investments in key supporting infrastructure	*For example, issues around grid connectability (approvals and connections) are a major source of uncertainty and risk for renewable energy generation projects – major infrastructure guarantees can provide certainty for investors.*

These policies will need to be supported by new frameworks, definitions, and regulatory structures

Financial markets are reaching the limit of what they can do within current definitions and interpretations of fiduciary duty and other regulated goals:

- Financial institutions are required to do what is in the best financial interest of members
- The CEFC is required to achieve investment returns of at least the five-year Australian Government bond rate +3 to +4 per cent per annum over the medium to long term
- The regular publication of superannuation fund league tables makes it difficult for funds to pursue strategies that deviate too far from the (carbon-intensive) market benchmark index.

At the same time, steps taken towards a green economy, e.g. the development of green bonds or information about the portfolio holdings of companies, often cannot be transparently measured; and there is a distinct lack of clear and detailed data on the transition and physical risks of climate change for various economic sectors.

Clearer articulation of shared pathways

A national taxonomy → standardisation of relevant language and frameworks
E.g. The EU taxonomy for sustainable activities (entered into force in 2020) sets out overarching conditions that an economic activity has to meet in order to qualify as environmentally sustainable.
ASFI is developing an Australian sustainable finance taxonomy. This could be adopted by Australian governments.

Transition pathways
Mapping pathways of businesses, industry sectors and economic activities and identifying emission thresholds
E.g. The UK is developing mandatory standards for publication of transition plans alongside climate-related disclosure by listed companies and financial firms.

Changes in regulated goals

Gradually heighten climate-related expectations for banks and other asset managers
E.g. The ECB requires banks to incorporate assessments of climate-related risks into their governance, strategy and risk management plans by end 2023

Central banks could play a larger role in considering climate change in monetary policy settings
Climate change arguably has implications for the price stability mandates of central banks
E.g. the Bank of England is mandated to consider net-zero compatibility in conducting monetary policy

Linked to this, climate objectives will need to be made quantifiable so that they can be integrated into the models that guide capital allocation decisions

New and improved data sources

National standards and codes linked to international best practice
E.g. Commonwealth Treasury is mapping equivalencies for different types of thresholds, e.g. energy efficiency

Publication of green asset ratios
'Green' assets as a proportion of total assets
E.g. From 2024, the European Banking Authority will require around 150 banks to publish a green asset ratio.

Provision of additional data outputs
Including on the impacts of climate change on investment portfolios.
E.g. The ASCOR Project provides information for investors to assess climate risk of different countries.

Private investors can take more steps now rather than wait for governments to act

Current situation:

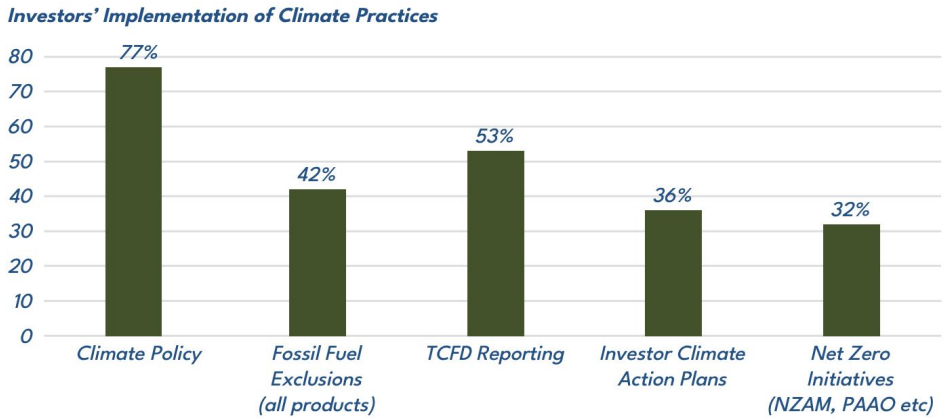
Australian investors are increasingly developing credible climate action plans to achieve short-term science-based targets, and specifying relevant goals, strategic actions and accountability mechanisms. They are also increasingly completing annual TCFD-aligned reporting.

However:

Only 35% of institutional investors have set whole-of-portfolio interim targets (this percentage is however steadily catching-up with longer-term targets)

Only 21% of institutional investors have set public targets for investments in climate solutions

Only 9% of institutional investors have implemented a response to their physical risk exposure, for example, allocating capital to solutions for climate resilience



IGCC, 2023

Investors can take a leading role in resolving many pertinent questions:

What should financial markets value?

Private (non-public sector) players in capital markets will play a key role in determining what is valued – be it financial, environmental, or social. To achieve decarbonisation ambitions, investors will need to focus on developing new paradigms of value, rather than making marginal changes to old paradigms.

Private investors can:

- Reflect ambitions related to decarbonisation and net zero in investment mandates/activities
- Make fossil fuel exclusions part of investment strategies for all types of fossil fuels
- Encourage the companies they own to take necessary action by producing credible net-zero transition plans and short-, medium- and long-term emission reduction targets and taking meaningful actions
- Advocate for system-level change and for other investors to also divest

How can the public and private sectors best interact to finance climate solutions?

By 2035, it is possible that existing barriers to participation in blended finance will have been overcome enabling participation by every financial institution. In the interim, innovative partnerships and investment vehicles could involve:

- Identifying opportunities for blended finance, including by first loss (where grant and repayable capital is combined at a fund level and the grant provides cover for capital lost due to defaults) and credit guarantee (where the guarantor – e.g. the government – agrees to repay the lender a certain amount if the borrower defaults)
- Aggregating smaller projects so there can be more risk (less due diligence) than at the individual project level
- Building necessary capacities and capabilities to engage in this type of financing

Who should bear the high upfront costs for emerging clean economy industries?

Current costs of emerging clean economy industries such as hydrogen are quite high, but these costs are expected to decrease in the future e.g. due to learning effects. There is a question around how these upfront costs should be shared by governments, private investors and/or consumers. There is a possibility for private sector players to design innovative systems to finance these industries, for example, advance market commitments and offtake agreements.