Climate & Recovery Initiative

Stakeholder Roundtable Nine

8 August 2022, 4PM-5.30PM AEST

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Climate & Recovery Initiative

The **Climate & Recovery Initiative (CRI)** is a collaborative initiative coordinated by the Centre for Policy Development (CPD) and Climateworks Centre, with a steering group that includes Pollination Group, Australian Industry Group (AiGroup) and the Australian Council of Trade Unions (ACTU). Working together, we are seeking to identify the best ideas and opportunities for aligning Australia's economic development with climate and transition priorities, and to get them into the right hands.

Our stakeholder roundtable series brings together trusted leaders, experts and advisers from business, regulation, policy and the community to consider the challenges and opportunities ahead. The ninth roundtable will focus on the intersection of current macroeconomic conditions, pricing volatility, inflation, energy transition and climate challenges.

This briefing pack contains:

- Instructions for joining via Zoom
- Roundtable agenda and participant list
- Recap of past CRI work
- Agenda reading materials

Agenda

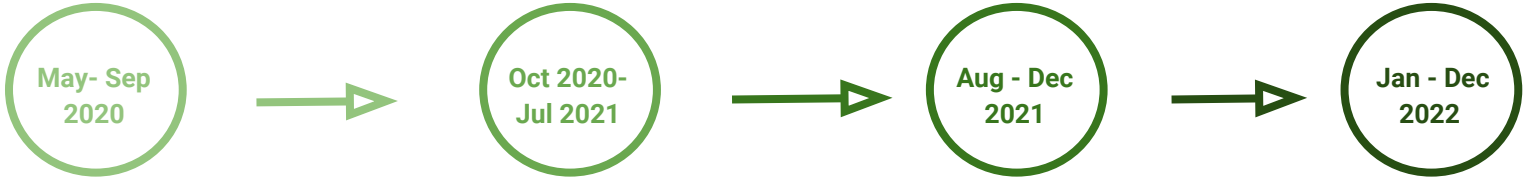
Time	Duration	Agenda Item
4.00PM	10 mins	**Welcome and introductions** *Anna Skarbek (Climateworks Centre) and Andrew Hudson (CPD)*
4.10PM	40 mins	**Plenary discussion** Opening remarks: *Nick Hurd (Former UK Climate Change Minister and Senior Adviser, Pollination Group) and Anthea Harris (Energy Security Board)*
4:50PM	30 mins	**Breakout group 1: Demand side solutions** *Tennant Reed (AiGroup)*
4.50PM	30 mins	**Breakout group 2: Economic policy** *Zoe Whitton (Pollination Group)*
5.20PM	10 mins	**Conclusions** *Andrew Hudson*

Participant list for roundtable nine - 8 August 2022

Name	Position and affiliation
Andrew Hudson	CEO, Centre for Policy Development
Anna Skarbek	CEO, Climateworks Centre
Anthea Harris	CEO, Energy Security Board
Brett Shoemaker	Director, Sustainability & National Agenda, Microsoft Australia
Christine Tonkin	Managing Director, Corporate Finance, ANZ
Darren Miller	CEO, ARENA
David Thodey	Chairperson, CSIRO
Don Russell	Chair, AustralianSuper
David Thodey	Chair, CSIRO
Elizabeth Fellows	Executive Director, Queensland Department of Environment and Science
Emma Herd	Partner, Ernst & Young
Eytan Lenko	Co-founder, Infrastructure Access Managers
Fiona Wild	Vice President, Climate Change & Sustainability, BHP
Frank Jotzo	Director, Centre for Climate and Energy Policy, ANU
Graham Sinden	Head of Climate Risk, APRA
Jai Thomas	Acting Coordinator of Energy, Energy Policy WA
Jo Evans	Deputy Secretary, Federal Department of Climate Change, Energy, the Environment and Water
John Lydon	Co-Chair, Australian Climate Leaders Coalition
John Thwaites	Chair, Climateworks Centre
Jonathan Kearns	Head of Domestic Markets, RBA
Karen Chester	Deputy Chair, ASIC

Name	Position and affiliation
Kath Rowley	Division Head, Climate Change, Federal Department of Climate Change, Energy, the Environment and Water
Louise Davidson	CEO, Australian Council of Superannuation Investors
Luke Menzel	CEO, Energy Efficiency Council
Michelle Andrews	Deputy General, WA Department of Water and Environmental Regulation
Michele O'Neil	President, ACTU
Nick Hurd	Former UK Climate Change Minister and Senior Adviser, Pollination Group
Owen Pascoe	Associate Director, Clean Energy Finance Corporate
Rebecca Mikula-Wright	Chief Executive Officer, Investor Group on Climate Change
Richard Yetsenga	Chief Economist, ANZ
Sam Hurley	Director, Commonwealth Treasury
Sarah Gill	Director Climate Change, WA Department of Water and Environmental Regulation
Sean Hughes	Commissioner, ASIC
Tennant Reed	Principal Advisor, National Public Policy, Australian Industry Group
Tim Nelson	Executive General Manager, Energy Markets, Iberdrola Australia
Tim Reed	President, Business Council of Australia
Toby Phillips	Program Director, Sustainable Economy, CPD
Tony Maher	General President, Mining & Energy Union
Travers McLeod	Executive Director, Brotherhood of St. Laurence
Zoe Whitton	Executive Director, Pollination Group

The Climate & Recovery Initiative journey so far



Identifying priorities and shaping the medium-term agenda

- Framing paper on opportunities for transition-aligned recovery
- 1st roundtable identified key priorities and opportunities
- 2nd roundtable refined and tested support

Building & intensifying support and coordination

- First public forum discussed developments ahead of COP26, and 3rd roundtable a COP26 roadmap
- 4th roundtable discussed shift in trade and diplomatic outlook
- 5th roundtable discussed strengthening targets to net zero

Looking beyond COP26

- 6th roundtable discussed international carbon tariffs, regional decarbonisation and domestic reforms
- Public forum focussing on global capital markets, and 7th roundtable reflecting on COP26

A just economic transition

- 8th roundtable discussed regional transition, IPCC findings on physical risk and post-election landscape
- 9th roundtable to address energy price shocks, cost of living and energy transition
- Discussion with regular participants about ongoing mandate of CRI

Key question for this ninth roundtable:

How do we keep momentum for decarbonisation in this new macroeconomic environment?

Plenary: Fossilflation and the role of energy transition in pricing stability

For relevant background see the Centre for Policy Development (CPD) paper - *Discussion paper for the Climate & Recovery Initiative: Interactions between inflation, fossil fuel markets, economic policy and climate change* - accompanying these slides

Breakout group: Demand side responses

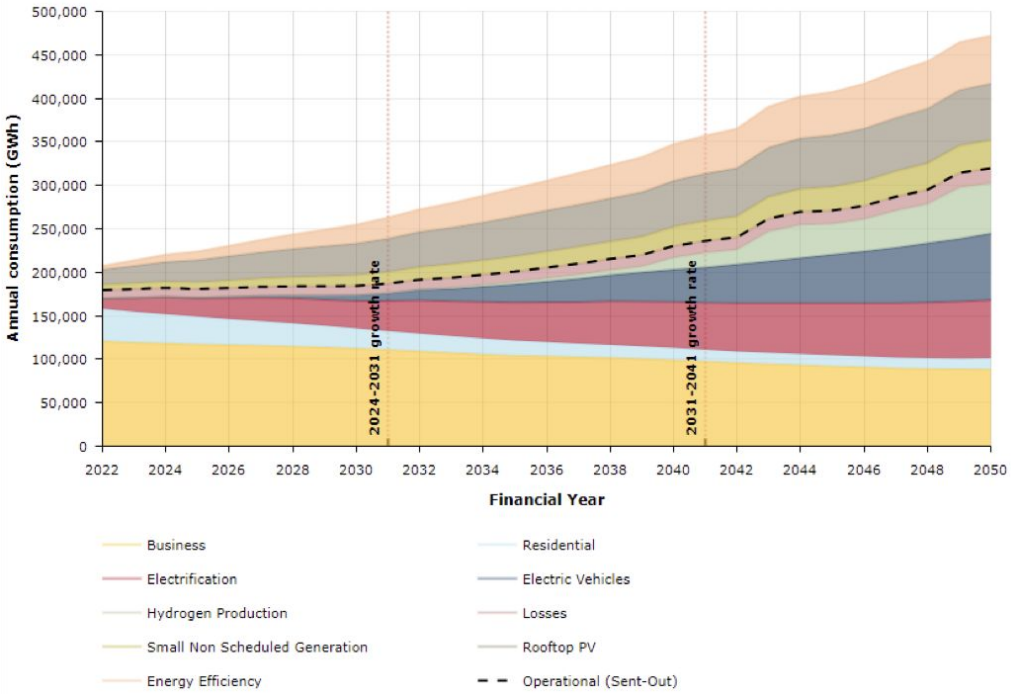
Core energy scenarios assume significant EVs, electrification + efficiency action

Efficiency and fuel switching are important to AEMO's central energy scenario (Step Change). But the **assumed levels of electrification and efficiency go beyond current policy settings** and will need shoring up.

Included by 2030:

- Electrification: +31 TWh
- EVs: +7 TWh
- Efficiency: -22 TWh

At the same time, our **gas strategy needs a rethink**. Even before Ukraine, gas was looming as a concern. AEMO's central outlook assumes significant increases in electrification (little policy yet), LNG imports (global shocks), and the delivery of the Narrabri gas project (uncertainty over prices and social license). If any of these assumptions fail, we will need more of the rest to make up for it.



Source: AEMO; AiGroup

Reducing demand requires significant investment and capital

Australia has low energy efficiency performance (18 out of 25 of the world's top energy consuming nations, ACEEE 2018). For our economy to remain on track for a 1.5°C pathway, we must reduce strain on electricity and gas networks. By 2030, this requires lower building energy usage (49% decrease from 2020), increases in rooftop solar (to 26TWh, 116% increase on 2020), more electric vehicles (76% of new sales in 2030; currently <1%), and shifting 20-50% of car trips to public and active transport.

This requires mobilisation of large amounts of capital (both private and public): $35bn in grid-scale solar and wind generation; almost $500bn for energy efficiency in commercial buildings; $8.4bn for transmission network upgrades and $16.5bn for industry electrification.

Key building sector policies

Progress towards a zero carbon building code

- ➔ Immediate opportunity with NCC 2022 - 7 stars + immediate implementation
- ➔ NCC 2025 ratchet up towards zero carbon building standard + phase out fossil fuel (including gas) for home heating and cooking in 2025 (mandate full electrification)
- ➔ Zero carbon building code implemented by 2030

Retrofit existing buildings

- ➔ 800 000 to 1 million homes every year to 2030
- ➔ 100 000 commercial buildings
- ➔ PACE (US), KfW (Germany), Energysprung (NL)

Transparency to support upgrades

- ➔ Mandatory assessments and disclosure
- ➔ Minimum requirements at point of sale and lease
- ➔ Minimum standards for appliances

Key transport sector policies

Vehicle emissions standards + phase out of ICE by 2035

- ➔ Critical to increase supply of EVs

Facilitate market uptake for EVs

- ➔ Tax rebates, New Zealand feebate system
- ➔ Electrification of fleets (government and industry)
- ➔ Large scale deployment of EV public infrastructure, need to be sufficiently advanced by 2025

Invest in clean transport infrastructure for mode shift

- ➔ Prioritise public transport, heavy and light rail, cycling infrastructure to encourage mode shift
- ➔ Transport planning and procurement in line with emissions reductions pathways

Source: Climateworks Centre, 'Decarbonisation Futures' and 'Recover and Reduce'

Building and transport are two key sectors for a demand-side response

To get on track for a 1.5°C pathway (or even below 2°C), governments will need to take significant action by 2025 to normalise zero-carbon buildings by 2030. Meanwhile, transport is the sector with the fastest growing emissions; the key priority is to decarbonise road transport with regulatory action to support uptake of EVs and investment in public and active transport.

BUILDINGS

BENCHMARK	2C PATHWAYS		1.5C PATHWAY	
	2030	CHANGE versus 2020	2030	CHANGE versus 2020
TECHNOLOGY BENCHMARKS				
Rooftop solar electricity generation	22-26 TWh	85-116% increase	26 TWh	116% increase
ENERGY BENCHMARKS				
Residential building energy intensity		44-48% decrease (improvement)		49% decrease (improvement)
Commercial building energy intensity		16-25% decrease (improvement)		28% decrease (improvement)
Share of electricity in residential buildings	76-78%	2020 = 49%	75%[1]	2020 = 49%
EMISSIONS BENCHMARKS				
Annual emissions	36-37 $MtCO_2e$	63-64% decrease	27 $MtCO_2e$	73% decrease

TRANSPORT

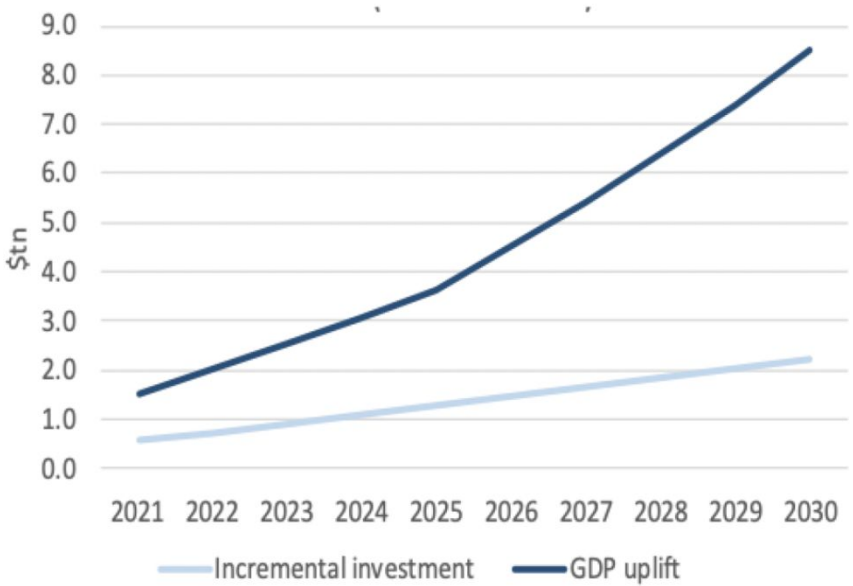
BENCHMARK	2C PATHWAYS		1.5C PATHWAY	
	2030	CHANGE versus 2020	2030	CHANGE versus 2020
TECHNOLOGY BENCHMARKS				
Electric cars (battery electric vehicles and fuel cell electric vehicles)	50% of new-car sales, 15% of total fleet	2020 = <1% of sales and total fleet	76% of new-car sales, 28% of total fleet	2020 = <1% of sales and total fleet
Electric trucks (battery electric vehicles and fuel cell electric vehicles)	25-39% of new-truck sales, 8-13% of total fleet	2020 = <1% of sales and total fleet	59% of new-truck sales, 24% of total fleet	2020 = <1% of sales and total fleet
Volume of zero-emissions fuels (bioenergy and hydrogen)	83-111 PJ	171-265% increase	134 PJ	338% increase
ENERGY BENCHMARKS				
Share of electricity and zero-emissions fuels in total transport energy use	9-11%	2020 = 3%	16%	2020 = 3%
Share of electricity and zero-emissions fuels in road passenger and freight energy use	5-9%	2020 = 2%	17%	2020 = 2%
Fossil fuel use in non-road transport	226-233 PJ	5-8% decrease	203 PJ	17% decrease
EMISSIONS BENCHMARKS				
Total transport emissions	108-115 $MtCO_2e$	2-9% increase[1]	93 $MtCO_2e$	12% decrease
+ Road transport emissions	89-95 $MtCO_2e$	5-12% increase[2]	76 $MtCO_2e$	11% decrease
+ Other transport emissions	18.8-19.5 $MtCO_2e$	5-8% decrease	17 $MtCO_2e$	16% decrease

Source: Climateworks Centre, 'Decarbonisation Futures'

Breakout group: The role of economic policy

Energy and climate policy is critical to macroeconomic success…

GDP uplift from incremental investment in the net-zero transition (IEA, IMF)



Source: Climate Policy Is Macro Policy (Mark Carney)

"There is still time to recognise that climate change is macro critical, that climate policy has become the third pillar of macro policy, and that through credible policy coordination we can catalyse enormous private investment that creates jobs, accelerates growth, smooths inflation and promotes energy security." - **Mark Carney, former Governor of the Bank of England**

…but requires credibility and predictable economic and climate policy settings

For climate and energy policy to be a positive macroeconomic force – leading to stronger growth and productivity – participants in the economy need to trust that governments and regulators are committed to a managed transition. A deeper integration of climate policy and mainstream economic policy will be required as the private sector undergoes significant transition.

G30: The public and private sectors' role in shaping the transition to a net-zero economy

Credible public policies, transition plans, and disclosure of climate-related risks and opportunities provide the groundwork for transitioning to a net-zero economy:

- Public policies will have to shape the incentives for the transition to net zero.
- Policy credibility will reduce uncertainty around the future path of policy.
- Companies will need to draw up transition plans to not be left behind on the way to net zero.
- Disclosure of these plans allows the financial system to identify climate leaders and laggards.

The financial system must build on this to redirect capital toward more sustainable technologies and companies. This involves:

- Managing risks around the transition and reflecting these in the prices of less well-positioned assets.
- Helping companies and investors identify opportunities to generate sustainable returns.

This process will help accelerate and amplify the effectiveness of public policy.

Source: Mainstreaming the transition to a net-zero economy (G30)

In all of this, we already know where governments can lead by sending clear signals across the economy:

- Sustainable finance frameworks and mandatory disclosure
- Expanded public finance for clean energy development
- Build independent institutions, eg. Just Transition Authority, Climate Change Authority
- Credible industry transition pathways
- Review budget reliance on fossil fuel royalties and revenue alternatives
- Incentives and R&D arrangements for early stage technology and manufacturing
- Updating mandates of public financing authorities and regulators
- Green trade agreements
- Explicit and implicit carbon pricing