

Towards a Just Transition from Coal in Australia?



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The University of Sydney is located on the Gadigal lands of the Eora Nation. The Sydney Environment Institute acknowledges that these lands were never ceded, and we pay our deepest respects to elders, caretakers and custodians past, present and emerging here in Eora and beyond.

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Cover image: Huge open cut black coal mine in Hunter Valley, NSW, Australia. Image credit: Taras Vyshnya, via Shutterstock ID: 1382108393. Image license: Standard Shutterstock license.



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Contents

1. Summary	4
1.1 Current situation	4
1.2 Recommendations	5
a) Recommendations for talking about a just transition	5
b) Recommendations for concrete action.....	6
2. The project	6
3. The current situation	7
3.1 Coal resources in Australia	7
3.2 Things are changing	10
3.3 Transition viewed from Australia.....	10
4. A journey to acceptance	12
4.1 Key stakeholders on the journey to a ‘just transition’	13
a) Communities and campaigners	13
b) Unions	14
c) Government	14
d) Industry and investors	15
4.2 The journey to a ‘just transition’: summary table.....	17
4.3 Recommendations for moving forward to acceptance	18
5. Practical action	19
5.1 Challenges faced by those planning for a just transition	19
5.2 Practical actions in stimulating a just transition: the role of transition authorities.....	20
5.3 Overarching recommendations for practical action and policymaking.....	21
6. References	23

1. Summary

1.1 Current situation

- Coal is the source of 28.4% of Australian energy and 54.9% of Australian electricity generation. It is also a significant export industry. Most of Australia's coal production is black coal, and 90% of this was exported in 2019-20. Australia also has brown coal reserves, which are used for domestic power generation and represent only 3.5% of total Australian coal production.¹
- Australian coal exports are responsible for about 3% of total world CO₂ emissions,² and according to the World Bank provide one sixth of Australia's total export earnings. In 2020-21, Australia exported 192 Mt of thermal coal and 171 Mt of metallurgical coal.³ The former is used for power generation, and the latter as an input to industrial processes, mostly steel production.
- All the evidence suggests that domestic coal generation is rapidly declining, with the speed of plant closures increasing in recent years. Thermal coal exports are likely to drop if Australia's import partners (notably Japan, South Korea, China and India) meet the pledges they made at COP26 in Glasgow.
- Metallurgical coal for steel making is likely to be exported over a longer period, notwithstanding considerable investment in and trial projects developing alternate steel smelting processes (including the production of 'green hydrogen' in Australia).
- Australia is unusual as a developed country with a highly developed extractive sector. The high pay of Australian coal industry workers is distinct from other country contexts.
- There are considerable differences in the situation across the three main coal-mining states: New South Wales (NSW), Queensland and Victoria. Discussions of 'just transition' are visible from unions, investors, and industry, but less developed from government, particularly the Federal Government.
- 'Just transition' is a problematic term in Australia, where it tends to provoke responses of feeling threatened rather than feeling included, particularly from workers and communities engaged in the coal mining sector.
- The situation in Australia is changing fast. Market and investor pressures are increasing on coal businesses, while the 2019 bushfires and 2021 Glasgow COP have shifted opinion on the need for transition planning. While there are hopeful signs on the ground, progress is challenging and dependent on broad dialogue among different interest groups working in the absence of strong government policy.

¹ Department of Industry, Science, Energy and Resources, 'Australian Energy Update 2021'.

² Climate Analytics, 'Australia on Track to Become One of the World's Major Climate Polluters'.

³ Department of Industry, Science, Energy and Resources, 'Commonwealth of Australia Resources and Energy Quarterly, December 2021'.

- Notwithstanding this, Australia is already witnessing a transition away from coal. If not managed effectively, there is a material risk of a disorderly transition which would have significant repercussions for workers and communities and could destabilise transition pathways amongst Australia's trade partners and sphere of influence.

1.2 Recommendations

A key finding of this project is the need to align just transition rhetoric with practical action. It is important to show that transition is an issue *here* and *now* and there are actions that everyone can take alongside presenting hopeful narratives about the future of communities.

Achieving a just transition from coal in Australia will require both deliberate work on the 'hearts and minds' journey to acceptance of and development of a shared vision of the concept and taking concrete practical action across government and industry to achieve this vision.

The just transition concept was developed in positive, well-meaning sense, but is not interpreted in that way by many in Australia today. The phrase 'just transition' is tarnished in Australian discourse but principles of just transition as understood internationally are still absolutely valid, namely:

- That there is a need to reduce CO₂ emissions for the sake of everyone on the planet.
- That major changes in how we supply and use energy are essential and inevitable, and this includes phasing out all coal use.
- That there will be negative impacts of any transition, and if these are not managed, vulnerable groups will be most affected.
- That it is important to consider justice in all stages of visualising, campaigning for and planning for transition.

The alternative to a 'just transition' is a disorderly transition.

a) Recommendations for talking about a just transition

- There is a critical need to change public discourse on just transition, and the first step is to listen to concerns articulated by communities and workers and recognize the uncertainty and contested meanings associated with the term.
- The emphasis of just transition thinking worldwide has been on building so-called 'red-green alliances' between unions and environmentalists. While these alliances and groups are crucial, it is important to broaden the conversation to wider communities and their concerns.

- When international actors (e.g., UN agencies, the International Trade Union Confederation ITUC and philanthropic funders) talk about just transition they should be aware of local understandings of the term and the fact that ‘just transition’ is charged language in Australia.

b) Recommendations for concrete action

- It is essential both for Australian communities and workers and for the global climate that Australia’s transition away from coal is deliberately managed and carefully planned. Careful, respectful dialogue with stakeholders at all levels will be an essential precondition for this.
- There is an urgent and critical need for long term Federal government policy to create room for discussions about transition in Australia.
- In Australia domestic coal power and export-oriented coal mining are fundamentally different industries, driven by different economic and political realities. It is important to think beyond transitions from coal **power** to consider transitions from coal **mining**. Australia should recognise the global responsibilities for climate change mitigation entailed by the substantial contribution of Australian coal exports to world carbon dioxide emissions.
- State governments should take a leading role in planning for transition and setting up appropriate transition authorities, but governments at all levels need to be instrumentally involved in transition planning.
- Transition planning should focus on **livelihoods** rather than just on **jobs** in affected industries. In some locations, new jobs will largely offset jobs lost, but this is not the case in all locations and community consultation is vital to protect those whose livelihoods will be affected by the transition.

2. The project

This report summarises the findings of the ‘Just transition away from coal in Australia’ project, funded under the British Academy’s ‘Just transitions to decarbonisation in the Asia-Pacific region’ programme. The project sought to understand how the idea of ‘just transition’ is currently being understood in Australia and draw out the challenges and opportunities to Australia achieving a just transition away from coal. It also set out to place Australia’s just transition in regional context.

Just transition begins with a recognition that any significant change, like phasing out coal use, will impact people and communities in different ways. Just transition aims to ensure there is some level of ‘fairness and equity’ for those who may be negatively affected by transition. Achieving a just transition therefore means paying attention to the social alongside the technological aspects of energy transitions and seeking to ensure that costs and benefits that arise are “equitably shared across the affected communities”.⁴ The academic literature identifies four main focus areas for just transition work: workers, justice thinking, planning and empowerment.

⁴ Evans, ‘Transformation from “Carbon Valley” to a “Post-Carbon Society” in a Climate Change Hot Spot’, 38.

During the project, it was clear that in Australia ‘just transition’ is frequently understood in very different ways to that envisaged overseas. Notably, in Australia using the term ‘just transition’ often provokes visceral reactions and hostility, rather than bridging the concerns of diverse stakeholders. This summary report outlines the reasons for this hostility and suggests actions to overcome it.

Method

- This summary report is based on an extensive review of the academic literature and grey literature (31 reports), 13 interviews with a range of stakeholders from federal and state government departments, industry, unions and the labour movement, civil society, and community, and discourse analysis of 355 newspaper articles and letters to the editor which mention ‘just transition’.
- Analysis followed a coding structure developed to analyse these different sources, focussing on:
 - Definitions of just transition.
 - Challenges and opportunities for a just transition from coal in Australia.
 - The evolution of public debate in Australian over time.
 - The situation on the ground now from the perspective of those trying to make change happen.

3. The current situation

3.1 Coal resources in Australia

- Two types of coal are mined in Australia. Brown coal (which in Australia is synonymous with lignite), and higher quality black coal.
- Brown coal is used solely for domestic power generation and is mined in the immediate vicinity of the power stations which burn it.
- Black coal is also used for local power generation, but a large proportion of black coal mined in Australia is exported via the seaborne coal market, primarily to customers in Asia.
 - The two primary end-users of exported black coal are overseas power stations and steel mills, so this coal is often further broken down into “thermal coal” for power generation and “metallurgical coal” for steel making.
 - Steel making requires high quality coal that is low in ash, sulphur and phosphorous. Australia produces some of the highest quality coal in the world for this purpose.

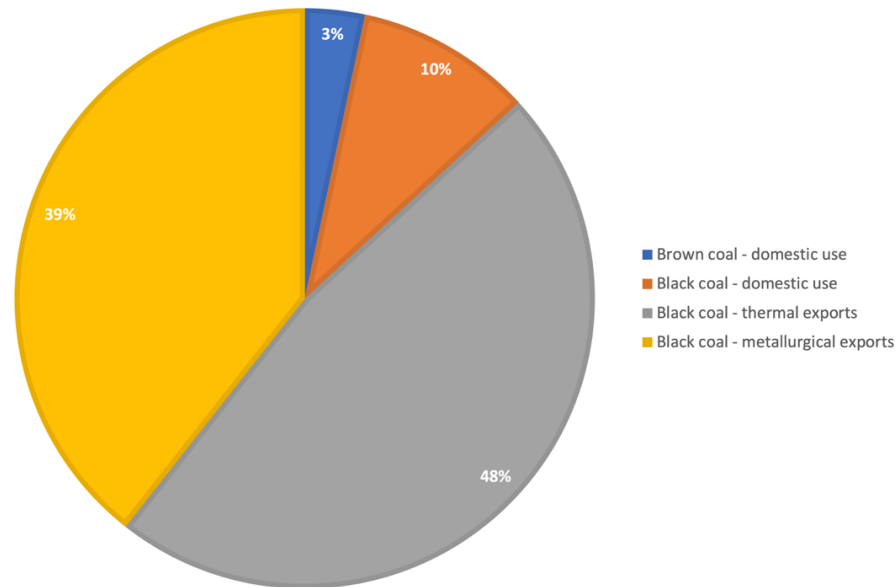


Figure 1: Coal mined in Australia, by energy content (derived from Dept of Industry, Science, Energy and Resources, 2021).⁵

- The main coal mining locations in Australia are in Queensland, NSW and Victoria, with smaller mining operations in Western Australia and Tasmania.
- In Victoria, coal mines only produce brown coal (lignite) for consumption in adjacent thermal power stations.
- In NSW and Queensland, there are large deposits of black coal. Some of this is used domestically, both at adjacent power stations (such as in the Lower Hunter Valley of NSW) and at nearby steelworks. Most of the coal mined in NSW and Queensland is exported via the seaborne coal market.
- Queensland's coal production and exports are higher than NSW's. In the last year, as the world has rebounded from a suppressed energy demand in the first year of the Covid19 pandemic, prices on the seaborne coal market have reached record highs. This has meant Australian exports have been booming despite tensions between China and Australia meaning that for most of the year China has not accepted Australian coal.
- It is established in the academic literature that in order to limit global warming, the vast majority of existing coal reserves must remain in the ground, including an estimated 95% of Australia's coal.⁶ However, Australia has been unwilling to reduce its coal production, either for domestic power

⁵ Department of Industry, Science, Energy and Resources, 'Australian Energy Update 2021'. These figures are based on the energy content of coal. The IEA also uses Mtce (million tonnes of coal equivalent) as an energy-measure to take into consideration the different energy content of various types of coal, but also reports figures in absolute volume volumes of coal (Mt). This pie chart would look different expressed as absolute volumes, and different again if expressed in terms of the value of the coal, since metallurgical coal exports attract premium prices which make them more significant to Australia's economy than thermal coal exports, despite being lower in volume.

⁶ McGlade and Ekins, 'The Geographical Distribution of Fossil Fuels Unused When Limiting Global Warming to 2°C'.

generation (until recently) or for export to thermal power stations and steel mills overseas. Most of Australia's trade partners are in the Asian seaborne coal market, which the International Energy Agency (IEA) identifies as the one region where coal use is expected to continue rising in the near term.⁷

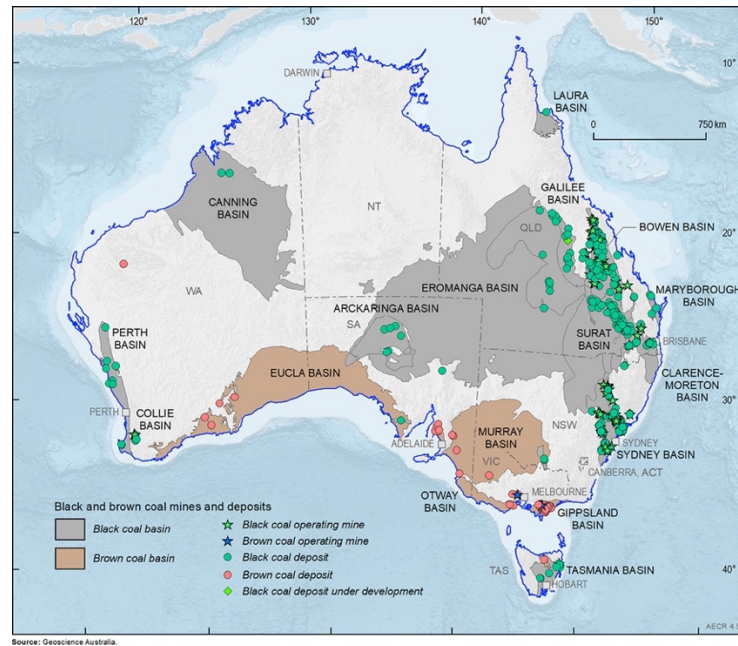
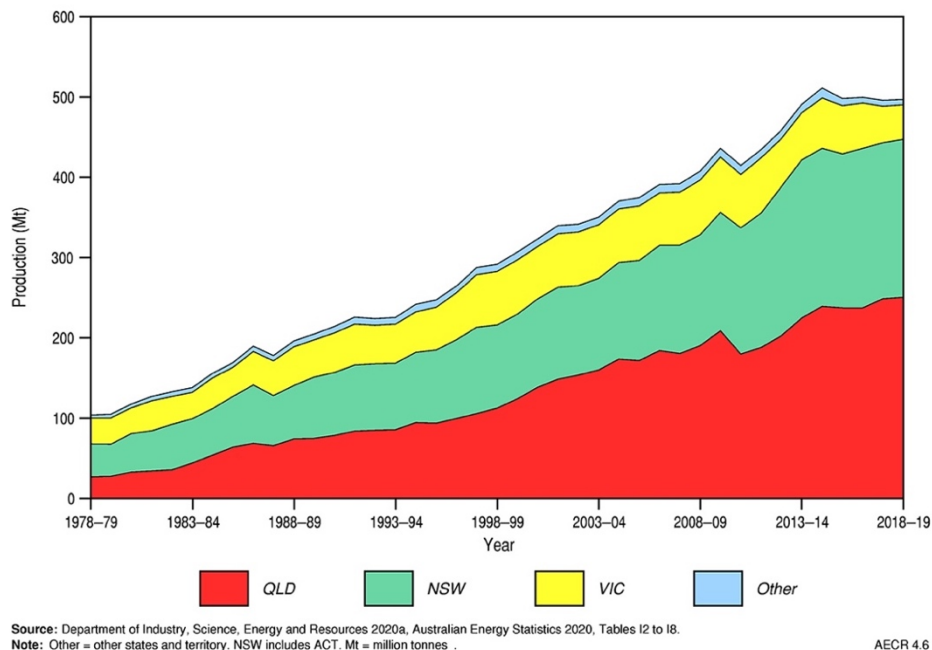


Figure 2: Australia's coal resources and operating mines. Reproduced from Geoscience Australia (2021).⁸



Source: Department of Industry, Science, Energy and Resources 2020a, Australian Energy Statistics 2020, Tables I2 to I8.
Note: Other = other states and territory. NSW includes ACT. Mt = million tonnes.

AECR 4.6

Figure 3: Australian coal production by state, in absolute volume (Mt). Reproduced from Geoscience Australia (2021).⁹

⁷ IEA, 'Coal 2021: Analysis and Forecast to 2024'.

⁸ Geoscience Australia, 'Australia's Energy Commodity Resources (AECR), 2021 Edition'. Most of Australia's currently operating coal mines are open cut rather than underground mines.

⁹ Geoscience Australia.

3.2 Things are changing

- Electricity from coal is struggling to compete on price with renewables in the Australian power market. Power generation companies have already announced future closures of some coal-fired power stations and this trend is likely to intensify.
- There is a shift in the rhetoric of energy and resource companies, which are increasingly recognising climate and sustainability concerns among investors and workers. For example, Glencore has recently announced planned closures of its Liddell, Integra and Newlands mines in NSW's Hunter Valley.¹⁰
- The main political parties in Australia have both committed to future emissions reduction targets at the Federal level. Even if the Federal Government's current targets appear very weak in the international context, our interviewees suggested that a little political space is opening for discussion of transition.
- Stakeholders we interviewed in this project (see Section 4) reported a shift in Australian opinion and observed that the 2019 bushfires have highlighted climate change and the 2021 COP26 in Glasgow triggered conversations about coal.
- There are organisations on the ground working for a just transition, even if they do not frequently use the term. Their practical work brings together different groups (including unions, local communities and governments) and is increasingly attracting significant interest from key stakeholders, including in the finance and business communities. Examples include the [Hunter Jobs Alliance](#) and [The Next Economy](#).¹¹

3.3 Transition viewed from Australia

There is a significant disconnect between the usage and understanding of just transition in the international debate and in Australia. In Australia, there is still a group of people who do not acknowledge a need for transition at all. For instance, some national and local politicians and industry figures continue to make bullish statements about Australian coal being the highest quality and therefore the last to be sold.¹²

The dominant transition discussion in Australia is focussed on the domestic coal power sector, which faces the most immediate threat of closures. In Victoria, which only uses coal for domestic power, many accept that coal has a limited future. In Queensland and NSW with their large export markets, many have not accepted that thermal and even metallurgical coal exports have a finite life, or see this happening a long way in the future.

Just transition has become a problematic term in Australia. Multiple interviewees explained that they avoided using the term because of the unhelpful associations. The “baggage” which led one interviewee to say just transition “is poisoned here as an idea” comes from:

¹⁰ Clarke, ‘Glencore to Close Three Australian Coal Mines | Argus Media’.

¹¹ <https://www.hunterjobsalliance.org.au>; <https://nexteconomy.com.au>

¹² For example, the Minerals Council of Australia's CEO Tania Constable wrote that “Australian coal leads the world in quality” in November 2020. See <https://www.minerals.org.au/news/australian-coal-leads-world-quality>

- Politicians who mock the term and restate the ‘jobs vs environment’ dichotomy. There is a small number of politicians such as Federal Nationals Senator Matt Canavan who regularly and loudly decry the idea of transition. This discursive strategy perhaps emanates from Australian political culture which encourages the trading of imaginative insults. Examples include:
 - “Whenever you hear the words “‘just transition’ from a politician don’t believe the B.S. What they’re really saying is they want you out of a job,” Mr Canavan said.” (Kirkwood 2019, *Newcastle Herald*).
 - “the resources and northern Australia minister [Canavan] gave an at-times fiery defence of coal, lashing opponents of burning fossil fuels for using the “highly objectionable” term of “just transition”, which he said was a euphemism for destruction of jobs” (Karp 2018, *The Guardian*).
- Journalists (often associated with News Corp mastheads)¹³ and letter-writers who mock the term and restate the ‘jobs vs environment’ dichotomy. Examples include:
 - Headlines such as “Watt? Miners don’t want to be baristas” (Gleeson 2020, *Courier Mail*) and “The false promises of green-tech energy” (George 2021, *The Australian*).
 - “A disparate group of zealots, virtue signallers, investors, far-left politicians, and cancel-culture fearing entities are trying to kill off our coal export industry and stop the construction of any more CFPS [coal fired power stations] in this country” (Letter by R Burnett to *Illawarra Mercury*, 2021).
- The ‘Just Transition Authority’ proposed by the Australian Labor Party (ALP) in the 2019 election.
 - The ALP lost the election unexpectedly and there was a sense among some commentators and politicians that climate policy contributed to this and Labor was seen as anti-coal. This seems to have led most mainstream politicians to be very wary of mentioning just transition.
- A sense that it is easy to pay lip service to the just transition concept but very hard to achieve in practice, and those doing the talking are not the ones who will suffer. Unions express concern that statements about just transition are just PR-speak in company announcements rather than reflecting a genuine intention to help those affected.
- Resentment of outside interference, in particular “city greenies” – environmentalists seen as having little understanding of realities of life in isolated coal communities. This is linked to concern about loss of strong regional traditions and identity built around coal.
- Talk of ‘clean, green’ jobs implies that coal jobs are ‘dirty’. People resent being made to feel responsible for coal emissions and dislike outsiders taking the moral high ground.
- Negative reactions to just transition rhetoric are also linked to a sense of threat:

¹³ The Rupert Murdoch-owned News Corp in 2016 controlled 57% of Australian newspaper market circulation (<https://www.theguardian.com/news/datablog/2020/nov/13/australia-newspaper-ownership-is-among-the-most-concentrated-in-the-world>)

- Those working in power stations and mines wish to hold on to well paid jobs, not knowing how they will support their families if made redundant.
- Other members of community feel insecure too, but often feel that just transition discussions centre on about compensating and helping their (highly paid) neighbours rather than those who do not work in the industry but will suffer from the broader effects of transition-driven economic downturn in the area.
- The psychological impact of apocalyptic messaging around climate change is a general issue when communicating about transitions. People instinctively push back against gloomy narratives, especially if they do not feel they have experienced or are experiencing direct effects of climate change.

4. A journey to acceptance

There are multiple stages in accepting the need for a just transition from coal in Australia. They are not necessarily linear, but the key stages on this ‘journey to acceptance’ include:

- Accepting that black thermal and (especially) brown thermal coal have a finite life.
- Accepting that black thermal coal exports have a finite life.
- Accepting that metallurgical coal exports have a finite life.
- Advocating transition from coal starting as soon as possible.
- Advocating a just transition that “leaves no one behind”.

Our interview respondents and the grey literature both strongly stress that it essential that different groups are brought together to plan a just transition. These groups are at different stages on the journey, and this section describes the current situation for key groups in Australia:

- Coal workers and their representative unions.
- Local communities affected by coal transition.
- Governments at local, state and national levels. Issues relevant to transition cross the remits of multiple departments (including energy, resources, environment, planning, and health).
- Companies in the coal industry, including mining companies and owners of coal-fired power stations. Companies in the supply chain should also be considered.
- Environmental campaigners trying to encourage low carbon policy and work with communities towards a low carbon future.

4.1 Key stakeholders on the journey to a ‘just transition’

a) Communities and campaigners

Coal communities

- Local economies are reliant on highly paid jobs in fossil fuel industries.
- Suggestions of change in communities dominated by fossil fuel industries creates insecurity.

Most coal mining and coal power generation jobs are concentrated in particular locations some distance from major cities, with few alternative employers available. Coal mining in many areas has a long history and is a source of local pride and sense of identity. Well-paid power station and mine workers, and those working in the supply chains for these industries, form the basis for the prosperity of these communities.

Many who benefit from high salaries in the coal sector are naturally reluctant to hear that these may be coming to an end, though some are starting to accept that transition is occurring. Communities reliant on, and located adjacent to, power stations are increasingly seeing the ‘writing on the wall’ for the coal power generation industry, but there is still some reluctance in communities based around power stations to accept that change is inevitable both for climate and market reasons. Many people in Victoria recognise that recent closures are likely to be followed by more. Stakeholders interviewed explained that the knock-on effects of local closures have already affected whole communities in places like the Latrobe Valley, particularly in reductions in revenues and services and loss of local opportunities for young people.

Environmental campaigners

- Heated public debate on the merits of coal, especially in NSW and Queensland.
- School strikers are recognising that “no-one should be left behind”.

Anti-coal campaigns have historically been a point of friction between coal communities and environmental campaigners from elsewhere.¹⁴ The divergence in opinions between urban and rural populations is evident in the media analysis, particularly in NSW. There were many more items mentioning just transition published in NSW than in the other states (40% of total items).

Young people who can see that their future is threatened by climate change and wish to reassure fossil fuel workers that they will not be forgotten are including a just transition in their demands, using the term in an unequivocally positive sense. The school strike movement is the subject of many media articles and letters to editors. Unfortunately, in the Australian context ‘just transition’ is not always accepted in this spirit. Campaigners from elsewhere may not recognise how threatening their message appears to coal communities.

¹⁴ Colvin, ‘Social Identity in the Energy Transition’.

b) Unions

- Unions are leading calls for action in Australia.
- Unions face tensions between the priorities of their members, the wider community and international responsibilities.

Both the Australian coal mining and coal power workforces are highly unionised. For example, coal miners make up around 90% of the membership of the CFMEU's Mining and Energy Division. The 'just transition' concept was initially promoted by the international unions movement and Australian unions have engaged in international transition initiatives and have expressed support for the development of renewable energy and related industries in Australia.

Union associations including the Australian Council of Trade Unions (ACTU) and the Victorian Trades Hall Council and individual unions (CFMEU, AMWU, ETU) have been active in publishing reports and raising the profile of the concept of a just transition in Australia.¹⁵

Our project has identified some debate and division in the Australian union movement regarding the idea of a just transition and how or whether to promote it. There is clearly an internal dialogue at play here. Unions need to bring diverse constituencies within the labour movement together. For instance, they must balance representing their members (who may presently be well-paid) against wider community sentiment about who should benefit from just transition programmes are. Unions also play a significant role in influencing Labor Party policy development.

Union leaders have expressed suspicion of the sincerity of some using just transition rhetoric. In a 2016 speech Tony Maher (then National President of the CFMEU) argued that the term 'just transition' "risks becoming the convenient catch-all term that gets tacked onto anyone's aggressive restructuring plan for any industry," and suggested that those using the term may be aiming to show that "their heart is in the right place" while absolving themselves from "being responsible for the consequences of their actions".¹⁶ One of our interviewees referred to Cecil Roberts, the president of the United Mine Workers of America, who is on record as doubting the concept of a just transition as there are no historical examples of one.

c) Government

- Complete absence of Federal Government from discussions of a just transition.
- State governments are quietly planning for a future less dependent on coal.

¹⁵ ACTU, Climate Change Bill 2020 Submission; ACTU, 'Securing a Just Transition: Guidance to Assist Investors and Asset Managers Support a Just Transition'; AMWU, Submission to Inquiry into the Retirement of coal fired power stations; Victorian Trades Hall Council, 'Putting the "Justice" in Just Transition: Tackling Inequality in the New Renewable Economy'; Victorian Trades Hall Council, 'Transition from Crisis: Just Transition & Economic Recovery Strategy'.

¹⁶ Maher, 'Why Australia Needs a Just Transition'.

A key finding of our research was that governments (at multiple scales) need to play a central role in planning for and funding transition. However, interviewees repeatedly stressed that governments are absent from the space, particularly the Federal Government. The adversarial nature of Australian climate politics (called the ‘climate wars’ by some) appear to be a key barrier towards meaningful dialogue towards a just transition from coal. This is reinforced by the populist rhetoric of some politicians who frame just transition as a question of ‘jobs versus environment’ and make it difficult to have nuanced conversations about transition.

At the root of this lies the idea that Australia’s economy is reliant on the extractive industries and the idea that fossil fuels are the source of the country’s competitive advantage. Some interviewees suggested that a ‘revolving door’ between government and the extractive industries means that pro-fossil fuel voices have undue influence over decision making.

State governments appear to be increasingly, if quietly, taking a more active role in planning for a transition from coal. For instance, the long-term forecasts of NSW Treasury acknowledge likely decline in both coal power and exports and consider the adjustment that will be needed as the state loses royalties.¹⁷ Interviewees stressed the challenge of developing a new mine in NSW at present. The Queensland government is actively promoting renewables but appears to have a less systematic approach to transition planning. For instance, it is still granting new mining licences for coal. Some interviewees from Victoria stressed the instrumental support from the Victorian Government in supporting the Latrobe Valley after the shock closure of the Hazelwood Power Station in 2017.

d) Industry and investors

- Investor pressure is catalysing change in both the power and mining sectors.
- Market forces are leading to closures of thermal coal generators, but questions remain whether market forces can promote a just transition.
- Mining companies are increasingly discussing consolidation and responsible wind down of coal assets in public.

Investors

There is an established international trend towards responsible investing which considers climate impact. Investing collectives like pension and superannuation funds and asset managers like BlackRock are beginning to focus on climate dimensions and consider companies’ exposure to fossil fuels in their investment decisions. Such investors are publicly thinking about the long-term risks of companies exposed to fossil fuels, as well as wanting to invest responsibly. Shareholder pressure is increasingly being applied to publicly-listed mining companies, both by big institutional investors and financial activists. Activist investors (individuals and campaigning

¹⁷ NSW Treasury, ‘2021-22 NSW Intergenerational Report’.

organisations) are beginning to bring together Environment, Social and Governance and climate concerns and concluding that a just transition is a business priority.

The Investor Group on Climate Change provides detailed recommendations both for financiers and the industries directly involved,¹⁸ and banks, investors and the finance industry more generally are thinking about action. Our interviews reveal that shareholder pressure on companies is growing, with more nuanced discussions about divestment versus asset holding beginning to emerge.

Power generators

Market forces are acting against electricity from coal, with renewables providing a competitive alternative. The 2017 closure of the Hazelwood power station in Victoria's Latrobe Valley appears to have been a watershed moment in signalling that the remaining Australian coal-fired generators would likely close earlier than anticipated.

Most of the remaining Australian coal fired power generators are owned by multinational corporations, who appear to be influenced more by global concerns than the Australian policy environment. The situation is different in Queensland due to the fact that the State Government has a financial stake in most of the remaining coal-fired power stations. There remains a challenge in some cases to start conversations between power station owners and their employees, in situations where management may not be talking to employees about closure plans even if they know it is inevitable.

Coal mining companies

Glencore, the largest coal miner in Australia, describe their company strategy as "responsibly depleting our coal portfolio over time ... [this strategy] reflects our belief that we remain the best steward for these assets and that coal will be required to support meeting global energy needs in the short term".¹⁹ The company has recently announced it is to close 3 of its 17 Australian mines.²⁰ By contrast, BHP's strategy has been to pursue divestment of thermal coal assets, including its massive Mount Arthur Mine in NSW.

One of the interviewees described a public relations competition between coal companies, all of them keen to indicate they are keen to be seen to be taking investors' climate concerns seriously. The message to their workforce in Australia is less likely to acknowledge future winding down on coal mining, however, since they also wish to retain existing workers.

Mining companies are experiencing practical difficulties in obtaining new licences (especially in NSW) and in obtaining finance and insurance to underpin their coal operations.

¹⁸ Investor Group on Climate Change, 'Empowering Communities: How Investors Can Support an Equitable Transition to Net Zero'.

¹⁹ Glencore, 'Climate Report 2021: Pathway to Net Zero'.

²⁰ Clarke, 'Glencore to Close Three Australian Coal Mines | Argus Media'.

4.2 The journey to a 'just transition': summary table

Stage	Opinion makers	Communities and campaigners	Government	Unions	Industry and investors
Not accepting that coal power or mining in Australia has a finite life	<ul style="list-style-type: none"> ▪ Loud voices within major political parties, a few News Corp columnists 		<ul style="list-style-type: none"> ▪ Federal government 		
Accepting that black thermal and (especially) brown thermal coal have a finite life		<ul style="list-style-type: none"> ▪ Victorian coal communities 	<ul style="list-style-type: none"> ▪ Victorian government (NB. exports are irrelevant in VIC) 	<ul style="list-style-type: none"> ▪ Victorian unions 	<ul style="list-style-type: none"> ▪ Victorian power companies
Accepting that black thermal coal exports have a finite life	<ul style="list-style-type: none"> ▪ Mainstream journalists, much public opinion. 	<ul style="list-style-type: none"> ▪ NSW and Queensland coal communities 	<ul style="list-style-type: none"> ▪ Queensland government 		<ul style="list-style-type: none"> ▪ Most coal mining companies ▪ Some large institutional investors ▪ Many banks
Accepting that metallurgical coal exports have finite prospects	<ul style="list-style-type: none"> ▪ Thoughtful public opinion 		<ul style="list-style-type: none"> ▪ NSW government 	<ul style="list-style-type: none"> ▪ (Some) unions 	<ul style="list-style-type: none"> ▪ Many coal miners, ▪ Some international investors
Advocating transition from coal starting as soon as possible	<ul style="list-style-type: none"> ▪ Australian Green Party ▪ International NGOs 	<ul style="list-style-type: none"> ▪ Environmentalists, many young people, 			<ul style="list-style-type: none"> ▪ Activist investors
Advocating a just transition that "leaves no one behind"		<ul style="list-style-type: none"> ▪ School strikers ▪ Some progressive elements of environmental movements 		<ul style="list-style-type: none"> ▪ (Substantial) progressive elements 	<ul style="list-style-type: none"> ▪ Some investor groups and advocacy organisations

4.3 Recommendations for moving forward to acceptance

It is evident that there is a need to change hearts and minds in Australia in order to gain support for the principles of a just transition away from coal. In this section we collect recommendations aimed at organisations and individuals campaigning to change opinions. Practical recommendations for action are collected in the next section.

- **Keep talking.** Raise the profile of just transition, correct misunderstandings and misrepresentations.
 - Groups with mixed sponsorship (government, union, community, business) are more likely to make progress than those seen as aligned with one particular interest group or political party.
- **Get different groups together, find common language** and framings everyone is comfortable with. Target broad constituencies with both bilateral and multilateral discussions. This will take time and effort to get buy in.
- Provide a **narrative of hope for the future**: share visions of future low carbon communities. These positive narratives about the future of the community could include:
 - Desirable low carbon lifestyles (for example driving electric vehicles).
 - A healthy environment.
 - Opportunities for younger people in new industries.
- Listen to and **show respect for local feelings**. Include local people, particularly affected communities, in debate, planning and organisation. Enrol community members as change agents and advocates.
 - Campaigners from outside should respect and include local concerns and start the discussion with current issues facing affected communities.
- **Provide agency**, explaining how people can contribute by getting involved and helping to catalyse change.
- **Recognise the uncertainty of transition** in discussions and campaigns.
- **Pay attention to meaning.** Clarify what is meant by ‘just transition’ in each conversation and acknowledge complexity:
 - Explain that it’s about the ‘here and now’ rather than some vague future vision.
 - When indicating commitment, be clear about who that commitment is to and how it will be achieved.
 - Consider alternative terminology – be aware of how the language of ‘just transition’ can hinder as well as promote productive conversation and change.
 - **Nuanced language is essential.** International actors should be careful when using ‘just transition’ terminology in Australia, because of the domestic associations of the term.

- **Address difficult ‘justice’ questions openly and honestly.** For instance, unions are already conscious that most coal workers are well-paid compared with colleagues with similar skills in different industries and that there may be a need for compromise between the interests of currently employed union members and those of the wider community.

5. Practical action

In this section we consider the challenges and practical actions required to achieve just transition from coal in Australia. Fundamental to this is both creating employment opportunities for those displaced from fossil fuel industries and building up the capacity of the wider community to ensure vulnerable members do not suffer as the local economy changes.

5.1 Challenges faced by those planning for a just transition

- A transition will require new jobs, but **where will new jobs come from?**
 - Many of the reports we analysed that give advice about transitions emphasise the potential of renewables and other “green economy” jobs to replace jobs lost in fossil fuel industries. Some reports (especially those authored by unions) expressed reservations about the quality of these replacement jobs, suggesting that salaries and working conditions are unlikely to be as favourable as those for current Australian mining and power station workers.
 - The majority of renewable energy jobs are in construction, with the labour for long term maintenance for solar panels described by one interviewee as “two guys and a dog in a ute”. Construction projects have limited timescales and renewable projects are not necessarily in the same locations as coal projects.
- Any industrial policy or **attempts to create new jobs are challenging in the context of a market economy.** One survey of the overall effects of a transition on Australia’s labour market points out: “The rise and (inevitable) fall of fossil fuel employment is utterly dwarfed by much larger forces shaping the labour market: including new jobs in much larger sectors (like health care and social services, professional and technical work, construction, and education).”²¹
- A transition will have a different impact on **workers at different stages of their careers.** Important considerations are:
 - Giving younger workers the opportunity to develop new skills suitable for growing industries.
 - Careful thought for ‘prime age workers’ who are unlikely to make major shifts in career direction but have skills which are valuable in other industries.

²¹ Stanford, ‘Employment Aspects of the Transition from Fossil Fuels in Australia’, 60.

- At all ages most workers would like to feel they are doing a useful job, not being paid off to do nothing. Older workers are frequently seen solely as candidates for redundancy packages but may also wish to continue in meaningful work.
- The transition will also have an impact on the **wider community** beyond fossil fuel workers.
 - Local supply chain and service businesses will be impacted at all levels from professionals to gig workers. The low paid and casually employed are less likely to have financial resilience to adjust.
 - Transition thinking displays a worrying lack of specific attention to both Indigenous owners and communities and women.

5.2 Practical actions in stimulating a just transition: the role of transition authorities

Multiple reports include recommendations for the setting up of an authority (sometimes national, sometimes focused on one location) with responsibility for navigating the transition from coal.²² These recommendations appear to be attempts to break the deadlock in Australian climate politics by describing practical, non-partisan steps that can be taken to move away from coal.

The recommendations reflect the need for central planning and dialogue between all those affected by a transition (governments, unions, businesses and communities). Frequently only the transition from coal power is discussed, with mine closures not included. Several reports and academic papers describe the management of transition from coal in Germany's Ruhr region as a model.²³ The example of the Latrobe Valley Authority in Victoria, set up after the closure of the Hazelwood power plant, is also frequently quoted.

An agency co-ordinating transition planning across and beyond government is unlikely to be able to lead on the "winning hearts and minds" activities described in Section 4 ("A journey to acceptance), which are more likely to be undertaken by locally-based campaigning organisations. However, such an agency could take the lead on practical steps towards a just transition by following the following three principles:

- **Build on regional strengths.** Examples from our research include the knowledge of automation that mining engineers have and the suggestion that mine workers are more likely to be able to transition to alternate industrial-scale employment (including in manufacturing or agriculture) than to jobs in tourism.
- **Infrastructure planning** for both physical and human infrastructures:

²² ACTU, 'Sharing the Challenges and Opportunities of a Clean Energy Economy: A Just Transition for Coal-Fired Electricity Sector Workers and Communities'; ACTU, 'Climate, Energy, and Just Transition Policy'; Briggs and Mey, 'Just Transition: Implications for the Corporate Sector and Financial Institutions in Australia'; Hunter Jobs Alliance, 'Building for the Future: A "Hunter Valley Authority" to Secure Our Region's Prosperity'; Stanford, Principles for Meaningful Transition Support for Workers in Carbon-Intensive Industries; Victorian Trades Hall Council, 'Transition from Crisis: Just Transition & Economic Recovery Strategy'.

²³ Abraham, 'Just Transitions for the Miners: Labor Environmentalism in the Ruhr and Appalachian Coalfields'; Sheldon, Junankar, and De Rosa Pontello, 'The Ruhr or Appalachia? Deciding the Future of Australia's Coal Power Workers and Communities'; Shields and Campbell, 'We Can Work It out: Could Germany's Multi-Stakeholder Approach Help Move Australia out of Coal-Fired Power?'

- **Infrastructure planning** for both physical and human infrastructures:
 - Making use of existing infrastructure from coal such as access roads and using brownfield sites to facilitate the connection of renewables into the electricity grid.
 - Training: investment in local further education provision, preparing young people for the new jobs in the area. Some reports and interviewees suggested encouraging university expansion and the setting up of research and development centres in transition areas, or supporting a “start-up” culture, providing business incubation support for new companies.
- Grow transition **planning from the community up**, whilst supporting it from the (federal) government down through strong, stable institutions.
 - Connecting across all levels and departments of government.
 - Enrol community members as change agents and advocates.

5.3 Overarching recommendations for practical action and policymaking

- **Address coal mining as well as coal power.** It is Australia’s coal exports that have the largest effect on global emissions and where transitions are currently hardest to discuss.
- There is an urgent need for **stable, long-term policy at Federal government level:**
 - Setting out a future for coal in Australia, giving policy signals to encourage the winding down of both coal power generation and coal exports as fast as practical.
 - Supporting state efforts for transition (with regulation and funding allocation).
 - Encouraging the development of new green industries.
- **State and local government** are crucial players in the transition. They have the mechanisms and local knowledge for transition planning. Australian communities look to state government for leadership and support. Recommendations for government at state level are:
 - Encourage dialogue and partnership with businesses, unions and community representatives.
 - Consider all groups affected by transition, not just ‘prime age’ men employed directly in fossil fuel industries.
 - Work with coal mining companies to support an organised wind-down.
 - Set up a politically independent transition authority with a long-term remit and clear scope of action, with responsibility for:
 - Co-ordination action across different levels of government and government departments, including training and enterprise support.
 - Planning for job creation and community resilience at a regional level in consultation with local governments and communities, based on local strengths.

- Consider diverse strategies and do not rely on a single transition body to do everything necessary.
- Recognise the complexity of transition publicly.
- Pay attention to transition as a matter of 'hearts and minds' as well as technical details.

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