



Australia's
**ENERGY
FUTURE:**
55 BY 35

Regional Transitions




Executive Overview

The AEC has proposed an economy-wide interim emissions target of 55 per cent reduction on 2005 levels by 2035 as a milestone on the way to net zero. This paper is one in a series of papers exploring the implications of the 55 by 35 target. This paper looks at the implications of this target and the transition to net zero for regional economies in light of the progressive closure of coal power plants.

It recognises that there is a policy case for a focus on these regions, given that coal power plants (and in some cases associated mines) are major employers in those regions. Without support, there are risks to the economic well-being of not just the former plant workers but also the broader region due to a multiplier effect. This risk is somewhat, but not fully, mitigated by the fact that worker entitlements and the process of decommissioning and rehabilitating sites mean that the industry will be injecting substantial funds into the local economy for several years after the plant has ceased operations.

Case studies from around the world illustrate the difference in outcomes when there is a strong government focus on supporting those who have lost work and fostering new employment opportunities in an affected region. Some of the most widely cited success stories, such as Germany and Spain, have required billions of euros in support and programmes that last for decades rather than months or years.

There is a fairly positive example in the Australian context – the Latrobe Valley Authority set up after the closure of Hazelwood led to lower unemployment rates in the region 12 months after plant closure compared to the period just before. However, for Australia to have a more systematic approach to managing the transition going forward, it may make sense to consider the participation of a coordinating agency along the lines of the Latrobe Valley Authority whether at the national or regional level.



The Latrobe Valley Authority set up after the closure of Hazelwood led to lower unemployment rates in the region 12 months after plant closure

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Introduction

There are approximately 10,000 Australians working in the coal power sector, split roughly evenly between those who work at a coal generator and those who work at a coal mine supplying a generator. This is around 0.1 per cent of the Australian work force. However, these workers are concentrated in a few regional areas and the closure of generators and mines will have a negative multiplier effect on those local regions. Businesses who supply them will lose revenue and may need to lay staff off, while the expected reduction in general spending on goods and services will reverberate through the local economy.

Accordingly, there are calls for governments to develop support policies to cushion the blow. Such policies have already been implemented in areas already affected, such as Victoria's Latrobe Valley as well as overseas in countries like Germany that are targeting the closure of their own coal plants.

This paper considers the issues arising from the closure of a large local employer like a power plant and where support needs to be targeted. This area is an emerging space and while interest is growing as coal plants bring forward their closure, there are still many unknowns.

The regional nature of the transition

The energy transition will barely register as a blip on national economic statistics. Employment and economic growth are essentially driven by population and productivity, not whether a government underwrites an individual wind farm or transmission line, nor by the closure of a coal mine or a power plant. Businesses open and close all the time, jobs are lost and gained every day. This is the normal ebb and flow of a dynamic market economy.

Consider the case of the Dick Smith electronic retail business, which collapsed in 2016 with the loss of around 2,500 jobs across the country. This is more jobs than were lost when Hazelwood power station and mine closed in 2017. Dick Smith employees were fortunate to get their last pay packet, given the company went bust, while long-serving Hazelwood employees were reported to have received large entitlements. However, while state and federal governments rushed to put together a structural adjustment package for the Latrobe Valley region, no such support package was provided to Dick Smith workers. So what is the difference?

There are two key differences. First, Dick Smith stores were spread nationwide and like any retail chain concentrated in larger cities. Coal plants and mines are concentrated in a few regional areas around Australia.

Second, retail as a sector was not in decline. Dick Smith was just a badly run business, so its former employees had the opportunity to look for similar jobs. But when a coal plant or coal mine closes, the sector as a whole shrinks as there are not expected to be any new coal power plants in Australia (although new mines for export markets are possible).

The broader coal sector

When considering the timing and drivers of regional transition, there are three sectors to the Australian coal industry, which directly employs around 40,000-50,000 workers (ABS data is quite volatile, hence the range).

1. Coal power plants and connected mines
2. Thermal coal mining for export
3. Metallurgical coal - mostly exported

Each of these will be affected differently, and so this section considers them in turn.

Coal power plants and connected mines

This sector is the first to be seriously affected by the transition. The trajectory of this sector in terms of the rate of closure is clearer due to existing announcements by coal generators and indications from electricity sector modelling such as the Australian Energy Market Operator's (AEMO) [Integrated System Plan](#). Of course, there is still much uncertainty as evidenced by the recent debate over the future of AGL's coal plants, triggered partly by Mike Cannon-Brookes' [attempt](#) to take over the company. This is because the timeframes can be materially affected by policy choices that impact the electricity sector.

In any case, this is the sector that governments and communities should be concerned about initially since it is the first to be affected.

Figure 1 Coal plants in Australia and expected closure date

REGION	SITE NAME	OWNER	NAMEPLATE CAPACITY (MW)	EXPECTED CLOSURE YEAR
NSW	Liddell	AGL	2,000.0	2022-23
WA	Muja C	Synergy	388.0	2022-24
NSW	Eraring*	Origin Energy	2,880.0	2025
WA	Collie	Synergy	317.0	2027
QLD	Callide B	CS Energy	700.0	2028
VIC	Yallourn W	EnergyAustralia	1,450.0	2028
NSW	Vales Point B	Delta Electricity	1,320.0	2029
WA	Muja D	Synergy	422.0	2029
NSW	Bayswater	AGL	2,640.0	2033
QLD	Gladstone	JV	1,680.0	2035
QLD	Tarong	Stanwell	1,400.0	2036
QLD	Tarong North	Stanwell	450.0	2037
NSW	Mt Piper	EnergyAustralia	1,390.0	2040
QLD	Kogan Creek	CS Energy	744.0	2042
QLD	Stanwell	Stanwell	1,460.0	2043
VIC	Loy Yang A Power Station	AGL	2,210.0	2045
VIC	Loy Yang B	Alinta	1,160.0	2047
QLD	Millmerran Power Plant	Intergen	852.0	2051
QLD	Callide C	CS Energy/Intergen	840.0	n/a
WA	Bluewaters	Sumitomo	434.0	n/a

* Origin Energy has announced the potential closure of Eraring as early as 2025

Source: [AEMO](#)

Thermal coal mining for export

More Australian coal is exported than burned locally. Domestic consumption of coal is only around 10 per cent of production, and exports are split roughly equally between thermal and metallurgical coal. Prices for coal are currently at record highs. Nonetheless, the longer-term trend is expected to be that coal exports decline as our trading partners decarbonize their economies and find lower emissions ways to generate electricity (or industrial heat). The timing of this decline is highly uncertain, however. China has been one of our largest importers of coal for many years, but the country plans to start reducing emissions by 2030 with a goal of net zero by 2060. [A recent ANU paper](#) argues that China has also improved internal transport infrastructure which could allow it to substitute in more, cheaper domestic coal for imported coal. They consider that exports to China could fall by up to 25 per cent in the next 3 years. However, Chinese policy decisions

are far from transparent and so it is unclear how likely this is. Other major importers, such as Japan, India and South Korea are considering their own decarbonisation plans, but none have yet set out a clear timeframe for ceasing to import and use coal.

Areas where there is both domestic and export coal, such as the Hunter Valley and Central Queensland, may see some opportunities for coal miners in the domestic sector move to the export sector (or for their mine to switch to export where logistics allows). However, depending on the pace of decarbonisation in our export partners, these opportunities may be relatively short-lived.

Metallurgical coal

Metallurgical coal is mostly exported. It is a key input in steelmaking and unlike thermal coal for electricity generation there is no direct substitute. Electric arc

furnaces do not require coal, but typically use scrap steel as their raw material rather than making steel from iron. Alternative steelmaking methods are being trialled in Sweden and elsewhere but are likely to take decades to be widely deployed. Metallurgical coal then is likely to be the last type of coal for which there is global demand.

So, workers, especially on mine mouth mines may find opportunities in other coal mines. But in the long run coal mining is not a growth sector. Mining more broadly will continue to be an important part of the Australian economy, and many workers in the coal mining sector will have skills transferable to other types of mines. But other resources may be found in different parts of Australia, so taking up such opportunities may entail relocation.

The affected regions

Given the primary concern is maintaining employment levels in the affected regions, the most appropriate way to scope out the relevant regions for each coal power plant is by labour market. In a large country like Australia, which ranges from highly populated major cities to sparsely populated rural and outback areas, it can be hard to precisely define separate labour markets. The ABS has a geographic classification system and considers its SA4 regions to be equivalent to labour markets. Each has around 100,000-150,000 workers. However, in many regional areas this means that the SA4 encompasses a large geographic area spanning hundreds of kilometres. Realistically, a worker within each of these cannot access the entire area within a daily commute. On the other hand, data at a more granular level is volatile due to the small sample size, so one should take care in drawing conclusions. Nonetheless, most of these regions are in reasonable economic shape – they typically have unemployment rates around or sometimes lower than their state average. In most cases the proportion of the workforce who work in the electricity, gas, waste and water sector (the most granular industry classification available – not all of these would be working at coal plants) is only around 1 per cent, with the Latrobe-Gippsland area having the highest at around 3 per cent. This indicates that the impacts will be relatively localised.

Victoria – Latrobe Valley

The Latrobe Valley, part of the wider Gippsland region that covers most of eastern Victoria, is synonymous with brown coal mining and power generation. Two brown coal plants have already closed: the relatively small Energy Brix plant in 2014 and the larger Hazelwood plant in 2017. The impact of the Hazelwood closure is discussed further in the case studies section of this report.

This has left the Valley with three remaining coal plants; Loy Yang A and B, which share a mine and Yallourn, whose owners have agreed with the State Government to a closure date of 2028. While there remain in principle large reserves of brown coal, this type of coal is not suitable for export and is especially carbon intensive to combust, so the opportunities for an ongoing mining sector once the power stations close are very low. The area is associated with CarbonNet, a prospective carbon capture and storage project, so if a carbon capture infrastructure was successfully developed, there could be ongoing use of brown coal (though even then probably not for power generation). However, at the current state of development, no-one is relying on this as a future industry for the region.

The region has the advantage of a strong transmission connection to a major load centre, i.e., Melbourne. So, it remains a good place for energy infrastructure, in particular large scale battery storage, but also renewables. This may in turn make it a suitable location for hydrogen production, as recognised by the establishment of the Gippsland Hydrogen cluster, although there are many regions set to compete in this space.

NSW – Hunter Valley

The Hunter Valley is home to AGL's Liddell and Bayswater coal power plants. Liddell is closing over 2022-23, while Bayswater is currently expected to run into the 2030s. The plants obtain coal from third party-owned mines. The Hunter rail system allows access to an export terminal at Newcastle, so the mines may continue operating after the power plants have closed.

The Hunter has a diverse mix of industries, being a well-known wine region, for example. Only around 1 per cent of the workforce works in the electricity, gas, waste, and water industry (this is the relevant industry classification the ABS uses to collect employment data), and so the proportion directly affected by coal plant closures would be well under 1 per cent.

A not-for-profit group focussed on supporting the transition, Beyond Zero Emissions (BZE), has released a [vision](#) for the economic transformation of the Hunter Valley into a renewable energy industrial precinct (REIP). They envisage that the Hunter could leverage off existing workforce skills and infrastructure to develop renewable energy, hydrogen, green steel and other industries. They consider that this could create up to 34,000 new jobs, dwarfing the job losses incurred by coal plant closures (and even export mining closures too). This would require substantial government investment to stimulate even greater private investment.

NSW – Newcastle and Lake Macquarie

There are two coal plants in the Newcastle and Lake Macquarie region: Eraring, which recently brought forward its potential closure to 2025 and Vales Point, scheduled to close in 2029. Both source their coal from third parties and with export infrastructure on hand, these mines could survive the closure of the power plants. Newcastle is the second-largest city in NSW and so the area has a large and diverse economy. It has already had to recover from deindustrialisation in recent decades, proving its economic resilience.

It is adjacent to the Hunter Valley and would also benefit from the economic development envisaged in the Hunter Valley REIP, especially as any exports from the Hunter would come through the large port at Newcastle. This port's main export currently is coal and so the decline of coal exports would likely be a bigger impact than the closure of the power plants.

NSW – Lithgow

There is a single coal-fired plant at Lithgow, to the west of Sydney: Mt Piper. This plant sources its coal from third parties and is scheduled to run until 2040. The closure of a single power plant will have limited effect on the regional economy, however, there may be a very localised impact.

Queensland – Central Queensland

There are four coal plants in Central Queensland. Three are in the Gladstone area (Gladstone, Callide B & C) while Stanwell is located further north near Rockhampton. Gladstone is privately owned, and its current closure date is 2035 while the other three are owned by the Queensland state government, which has [announced](#) it does not intend to close any of its plants before 2030. This is despite its 50 per cent renewables plan, which will presumably put the coal fleet under economic pressure. On the face of it, the region has some time to prepare for the transition.

Like Newcastle, Gladstone is an important port and has a diverse economy, with major industries including aluminium smelting, coal export and liquefied natural gas (LNG) export. To some extent all of these may be threatened by a global trend to net zero, although the gas sector is expected to outlast the coal sector.

As with Newcastle, BZE have identified the Gladstone area as a prospective REIP, with the potential to generate 11,000 new jobs. It has already secured [funding to develop a hydrogen hub](#).

Southeast Queensland

Southeast Queensland has four coal plants, in two clusters of two. There are two plants at Tarong in the South Burnett region, which share a coal mine. Then there are two mine mouth plants in the Darling Downs: Millmerran and Kogan Creek. Millmerran is privately owned and as the newest coal plant in the NEM is scheduled to be the last to close, while the other three are Queensland government owned. So, as with Central Queensland, there is likely to be time to plan for the transition.

These areas are more susceptible to the coal plant closures than some others. They are based in small regional towns and the nearest major regional city, Toowoomba, is well over an hour's drive, limiting commuting options. As the mines that service the adjacent coal plants are not set up for export, they will likely close with the plants. The Darling Downs is coal seam gas territory, which has provided some economic boost to the region.

Not having the advantages of Newcastle or Gladstone, there may be less merit in a "big bang" REIP approach based around attempting to set up a cluster of pre-selected low emissions industries. The strong electricity network around the plants is likely to lend itself to renewable energy and storage projects in the region. Beyond that, it may be more effective to provide general support to the regions and to individual workers for reskilling and upskilling, small business support, and upgrading infrastructure. This will allow successful small businesses in whatever industry to emerge and grow, rather than trying to impose a blueprint of what the future economy should look like.

WA – Collie

There are 4 coal plants at Collie in WA's Southwest; the privately owned Bluewaters and three state-owned plants. One of these, Muja C, is progressively closing over 2022-24. Recently, the Western Australian Government [announced it was bringing forward the closure of Collie and Muja D](#) to 2027 and 2029 respectively. Additionally, the owners of Bluewaters recently wrote down the carrying value to zero, indicating the economics are marginal.

At the time of the closure announcement a \$547.2M transition package was also promised, including a \$200M Collie Industrial Transition Fund. Combined with previous funding, this brings the total investment to \$662 million with the WA Government already setting up the Collie Just Transition Working Group to implement job creating initiatives.

Coal plant owner contributions

A combination of legal requirements, union agreements and announced initiatives mean that coal plant owners will, and already are, contributing large amounts to local economies at and beyond the date of closure.

The heavily unionised workforce benefits from generous redundancy payment terms agreed between unions and employers. Terms may differ across different plants. While individual workers will decide what to do with their money, it can be expected some of it will be reinvested back into the local economy in the period shortly after closure.

Not all employees will lose their jobs. Some plant owners may be able to reallocate staff into other roles, though this will typically be easier for back-office staff rather than mine and plant operators (unless the plant owner still has another site open). When Hazelwood closed, a labour pooling arrangement was established so that priority for filling vacancies at other Latrobe Valley sites could be given to Hazelwood workers. While this approach is worth considering elsewhere, there will be progressively fewer opportunities for relocation as stations and mines close.

The power plants will need to be decommissioned and sites remediated. These processes take several years and cost hundreds of millions of dollars. Companies with upcoming plant closures like AGL and Origin have set aside much of this money already (these two alone have [remediation provisions of hundreds of millions](#)). The work will provide employment over multiple years and inject funds into the local economy, although will not completely replace the economic contribution of an operating coal plant. Remediation activity is in theory subject to a multiplier effect. An example of this comes from the US Department of the Interior's (Dol) Abandoned Mine Lands grant program. This program uses a levy on coal mining to fund environmental restoration activities. The Dol estimated [that US\\$490m of grants generated US\\$720m of further value added](#), or a multiplier effect of 2.47, as well as creating 7,817 jobs.

The next steps will entail repurposing the site (depending on the nature of future uses and the layout of the site this may occur in parallel with remediation). An emerging opportunity is to repower the site with a large-scale battery. Sites that have announced large scale batteries include Hazelwood, Yallourn, Eraring and Liddell.

Case studies

This section considers some examples of regional transitions – one domestic (the Latrobe Valley following the closure of Hazelwood) and two overseas (Germany and Spain).

Latrobe Valley

The Hazelwood Power Station and Mine closed in March 2017. At the time of closure, Hazelwood employed 750 people (including both direct employees and contractors), equivalent to around 2 per cent of the local LGA (Latrobe City) workforce. Following closure of the Hazelwood Power Station and Mine, ENGIE's focus turned to decommissioning, remediation and rehabilitation of the site. 12 months after closure, the decommissioning process had a workforce of 130 employees directly employed by ENGIE and a further 196 contracted employees, or a little under half the number employed when the power station was operational. Some workers also benefited from the labour pooling scheme set up by the remaining coal plants and the Victorian Government, which gave them priority for any vacancies at the other sites.

Nonetheless, governments were concerned about the potential for the closure to negatively impact the economy and community in the Latrobe City and surrounding area, which was already experiencing higher unemployment than the state average. Although there was only around six months' notice of closure, federal and state governments mobilised a range of funding programs:

- The Victorian Government created the [Latrobe Valley Authority](#) (LVA) to partner with the community and businesses to deliver coordinated action that improves outcomes for everyone in the Latrobe Valley.
- A Community Facility fund to co-fund infrastructure upgrades - including a \$3.5m upgrade of Morwell's CBD and benefit local community facilities and organisations.
- Major sporting infrastructure projects such as the \$57m Gippsland Regional Aquatic Centre and \$19m Traralgon Sport Stadium, as part of the Latrobe Valley Sports and Community initiative. These projects sought to use 90 per cent local content to maximise the local economic benefits.
- A \$530m Gippsland rail upgrade project.
- Victorian Government purchase of the Heyfield timber mill.

On one metric, these initiatives were broadly successful – 12 months after closure, the unemployment rate was lower than it had been immediately before the closure of Hazelwood. The LVA continues to provide support to the area and is already working with Energy Australia in the design and delivery of a transition support service for Yallourn workers, contractors, their families and local business. It seems likely that the LVA will continue until after the last coal plant in the Valley has closed.

The LVA is a good benchmark for how governments can manage the oversight of support programs for regions affected by the transition away from coal-fired power generation. However, going forward there may be merit in establishing a national transitional body to leverage the greater financial resources of the Commonwealth and coordinate policies across regions more effectively. Under this national model, the national agency would still need to work in partnership with state and local governments, and their regional agencies, to maintain a localised focus.

Spain

Spain's Plan del Carbon ("Coal plan") is a package of measures to implement an orderly closure of the country's remaining black coal mines. It was finalised in 2018 following discussions between the national government, trade unions and energy companies. It was supplemented in 2020 by a further agreement to close the final few coal power plants in Spain.

The Coal Plan took place in the context of an ongoing decline in Spain's coal sector. Over the last 30 years, the amount of coal mined has fallen due to the impact of national and EU climate and energy policies. Domestic coal production fell almost 90 per cent between 1990 and 2014. However, coal remained an important fuel for electricity generation (16.5 per cent in 2014), so coal imports had to increase to maintain fuel supply.

Both the coal sector and the thermal plants using the coal have benefited from billions of euros of subsidies over many years. So, the just transition has limited budget impact because it allows the termination of those subsidies. EU state aid rules would also have precluded further operational subsidies but allows governments to use subsidies to mitigate the impacts of facilities closing. Spain's electricity system has overcapacity allowing for coal plants to be progressively closed without threatening reliability (although the government's decision to simultaneously begin phasing out the nuclear fleet means new investment in renewables plus firming will be required).

The costs of the Coal Plan are mostly in guaranteeing pensions for coal workers, including early retirement even for workers in their forties, and investing in replacement industries and retraining for younger workers. However, previous attempts to diversify local economies have been relatively unsuccessful, with mining regions experiencing significant depopulation as mining employment declined.

Germany

Germany's energy transition, the Energiewende, is well known internationally and is often the focus of attention. A key element is the phase out of coal plants, which in turn is

leading to the phase out of coal mining. Like Spain, Germany has been providing support to the coal sector and the communities where coal mines and plants have been located for decades. These policies have been overlaid on Germany's non-industry specific economic and fiscal policies, such as a generous welfare system, an approach to organised labour that formalises union participation in corporate decision-making, and fiscal equalisation across regions.

Because the Energiewende incorporated a clear plan to wind down coal-fired electricity (and given that Germany is a net coal importer, this entailed the wind down of coal mines too), the support policies shifted around twenty years ago from propping up the industry to diversifying local economies. They also focussed on developing pathways to re-employment for coal miners and coal plant workers, including retraining packages.

The full list of support policies, both financial and non-financial is extensive. It is mostly oriented towards building new economic capacities without being unduly prescriptive about what the new industries will be. Some of the regions are highly urbanised, such as the Ruhr and so have several universities that have funded networks with local businesses to develop advanced technological capacity. The focus of governance has shifted from top down to regional, even though the federal government provides most of the funding. So, regions can tailor the spending to their own circumstances.

Germany ended black coal mining in 2018. [One source claims that no former coal miner is involuntarily unemployed](#) - all have found new jobs or been able to take early retirement. In some cases, the quality of the jobs is suspect - the ABM policy provided heavy subsidies for up to two years for what were often still low paid jobs, meaning the jobs were not especially sustainable for either the workers or the new employers.

The final frontier for Germany is lignite (brown coal) mining and power production, which has remained more or less economically viable. Given Germany has now committed to closing all coal-fired plants by 2038, it will soon need to implement similar policies for regions with lignite mines and power plants.

A budget of €40bn has been allocated to support the transition of lignite regions. An additional €1bn is available for the transition of the few remaining hard coal plants (that now run entirely on imported coal).

Direct support to workers has also been increased, with older mine and power plant workers receiving up to five years' "adjustment money" to tide them over until retirement.

The German and Spanish examples are characterised by very large sums of public money targeted at managing the

transition of affected regions. The budgetary implications of this have been mitigated by the unwinding of industry subsidies. As Australia has no equivalent subsidies for the coal industry (currently enjoying record prices) or power sector it will not have these mitigating savings to offset the budgetary impact of funding regional transitions.

Other examples

While the above case studies are largely positive in that well-targeted support was able to cushion the blow of industry closure, not all transitions have been as successful. In Appalachia, the coal region along the Eastern seaboard of the US, the coal sector has been in decline for several decades, with [little to no co-ordinated support to help build up replacement industries](#), revitalise communities or assist miners in re-training. There was also little pre-emptive planning for likely coal mine and power plant closures. Support programs that were generic and top-down, such as an investment subsidy, had minimal impact. It did little to address challenges with reskilling local workers or improving infrastructure, which would have complemented the investment subsidy to make the region a more attractive destination for new industries. Political ambivalence in the US about the requirement for and the pace of the energy transition is unlikely to have helped.

Success criteria

A politically challenging consideration is trying to define success in a regional transition. Different stakeholders will have different expectations and it may simply cause conflict for governments or an agency charged with overseeing the transition to be definitive about its goals and targets. Nonetheless, there is value in thinking about them and what may be required to achieve.

The ILO's Vision for a Just Transition is that "it should contribute to the goals of decent work for all, social inclusion and the eradication of poverty". This indicates a desire to consider regional transitions as part of broader economy-wide transformations and reallocation of resources. Such a transformation is well beyond the scope of this paper.

The ACTU's [policy discussion paper](#) on just transition carries an implicit benchmark that retrenched workers should end up in a job that pays at least the same. In that paper, it cites as an example a review of outcomes from MG Rover's coal closure in the UK, which found that "one year after the plant's closure over 90 per cent of workers were in full time employment. Whilst this appears prima facie to be a good outcome, it was found that a majority of workers were earning less than they did in their previous role". Coal plant and associated mine workers are typically well paid,

highly skilled workers that earn well above the median salary. But, in a context where their specific skills may no longer be sought, it will be challenging to maintain that same level of pay.

Conclusion

It's important that Australia prepares for the inevitable closure of its fleet of coal-fired power plants. With no government preparation or action, the localised impacts would be detrimental to the regional towns that currently host coal plants, with some potential knock-on effect to the broader regional economies. There will be work and economic activity associated with the decommissioning and rehabilitation of coal plant and mine sites, and an effective injection into the local economy via redundancy payouts, which as the example of Hazelwood indicates may be large. Sites may be repurposed for large-scale battery storage or other uses to provide some ongoing employment.

But these activities are not expected to completely offset the impact of closures and so government support will be required to mitigate the impacts of closure. This may need to be directed at the local economy and workforce more generally, as well as at the former workers from the plant/mine. There are already existing or recent government policies at multiple levels of government that can be used, and it may make sense to consider the participation of a co-ordinating agency, along the lines of the Latrobe Valley Authority, whether at the national or regional level.

Appendix 1: Existing support programs

Aside from the Latrobe Valley Authority and now the Collie Futures program, there are few agencies or support programs that are specifically targeted at the identified regions. However, there are numerous broader industry support and other programs that these areas could take advantage of, especially if they benefited from a co-ordinating body such as the LVA. A range of current or recent programs are set out in this appendix, noting that this list is not exhaustive.

A recent search of [the government grants database](#) indicates 46 open programs targeted at regional and rural areas.

Commonwealth

Noting the new ALP will have different policy priorities to the outgoing Coalition government, the commonwealth policy landscape is in a state of flux. Some of the initiatives listed below may not disburse further funds. However, they could be reactivated and in any case are indicative of the types of policies that may be available in the future.

Hydrogen hubs development and implementation grants - Hydrogen Hubs Grants will support the development of clean hydrogen hubs across regional Australia.

Employment trials grants - The Regional Employment Trials creates an opportunity for local stakeholders in 10 eligible regions to deliver employment related projects.

State and territory

Victoria

Regional jobs fund - The Regional Jobs Fund (RJF) looks to support projects which create employment opportunities across industry sectors where regional competitive advantage exists. This includes, but is not limited to:

- food and fibre
- advanced manufacturing
- professional services
- new energy technology
- medical technology, life sciences and healthcare
- transport, defence and construction technology.

Regional Investment fast-track fund - Part of the Regional Jobs and Infrastructure Fund, the Investment Fast-Track Fund (IFF) focuses on funding activities that will mobilise strategic investment projects through fast-tracking business case development and planning for medium to longer term projects in regions, and increase the pipeline of investment ready projects.

Regional tourism investment fund - The fund will support new and innovative tourism infrastructure projects that will increase visitation, drive private investment, and deliver more jobs.

NSW

Net zero industry and innovation - This program has 3 focus areas:

Clean technology innovation - This focus area will enable knowledge sharing, capacity building and collaboration between researchers, industry and government to support the development of clean energy

New low carbon industry foundations - This funding will help build the State's clean manufacturing base, using new, clean technologies such as green hydrogen, cement, ammonia and steel production. It includes up to \$150 million in grant funding to support the development of hydrogen hubs in the Hunter and Illawarra regions.

High emitting industries - To help high emitting industries shift to net zero and deliver significant emissions reduction by 2030, \$380 million has been allocated to support major plant and equipment upgrades.

Queensland

Back to work program - Incentive payments and other supports are available to employers who hire an eligible previously unemployed Queenslanders from a vulnerable cohort (including long-term unemployed) who has experienced a minimum period of unemployment directly prior to commencing work with them.

Western Australia

Collie Transition package - This encompasses much of the government's activities related to the decommissioning of the old coal plants and includes the

\$200 million Collie Industrial Transition Fund to drive new and emerging industries and create new local jobs.

Collie Futures fund - The Fund will help the region to transition to a more sustainable economy with a more even spread of employment across a greater range of industries and a reduced reliance on any one sector.

The Collie Futures Fund is being delivered through two key programs:

- Collie Futures Industry Development Fund -
Up to \$2 million in matching funding available
- Collie Futures Small Grants Program -
Up to \$100,000 available per initiative

Clean energy future fund - The \$19m Clean Energy Future Fund was launched in April 2020 and supports the implementation of innovative clean energy projects in Western Australia.