

Missed opportunity?

Improving the Net Zero Economy Authority's chances of success

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Overview

Transforming the Australian economy to net-zero emissions is the biggest challenge the country has faced outside of wartime. Most of the action will play out in the regions, because Australia's industrial base (the source of much of our emissions) is largely located outside capital cities.

Australia can learn from previous shocks caused by structural changes to the economy. We know from these experiences that allowing affected communities to determine their own destinies, and supporting them in this process, gives those communities the best chance of surviving, adapting, and eventually thriving. We also know the transition process is a long one, and support must be correspondingly long.

A Net Zero Economy Authority, as proposed in the Bill currently before Parliament, could help meet these challenges. But it must be designed well to maximise its chances of success. It must allow for bottom-up changes, driven from the regions by regional communities. And it must be a long-term presence.

The current design, as outlined in the Bill, misses some opportunities. The proposed Authority has a broad remit, reflecting the diversity of challenges facing the regions. But it needs structure and focus within this, so that it can effectively prioritise and make best use of its resources.

The proposed remit also risks creating two classes of workers: one that is eligible for assistance and another that is not. The remit should be broadened to allow future governments more flexibility to assist workers beyond the electricity sector, including those who are not concentrated in particular regions.

Finally, the Bill should be amended to secure the Authority's budget. The Authority must be on a stable financial footing if it is to provide real help to those regions at the forefront of the energy transition.

These issues, and our specific recommendations for changes to the Bill, are outlined in the following pages. If the Parliament were to adopt our recommendations, the Authority could be a useful and practical institution that future governments could use to help make the transition to net zero a real opportunity for Australia and its regions.

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Recommendations

- Give the Net Zero Economy Authority more focus, by requiring it to develop an annual work plan.
- Include encouraging regional leadership in the Authority's remit, so that strongly affected regions can lead their own transitions.
- Broaden the definition of 'closing employer', to give future governments the flexibility to assist a wider range of workers and companies.
- Include geographically dispersed workers that are likely to be affected by the transition to net zero, such as gas-fitters and mechanics.
- Legislate a minimum 10-year budget for the Authority, to put it on a stable footing and increase its effectiveness.
- To maximise the chances of displaced workers finding new positions, do not place regional limits on the Energy Industry Jobs Plan.

More specific recommendations are included in the following pages.

1 Background and context

Grattan Institute is an independent think tank focused on Australian domestic public policy. It aims to improve policy by engaging with decision makers and the broader community.

The Net Zero Economy Authority (the Authority) was announced by the Prime Minister in May 2023.¹ A Bill to establish the Authority was introduced to Parliament in March 2024, and referred to a Senate Inquiry.

This submission responds to the Bill and associated explanatory memorandum, drawing on Grattan's recent work on the challenges and opportunities that net zero presents to the Australian economy.²

1.1 Net zero is the biggest challenge to the Australian economy outside of wartime

Australia is well-placed to prosper in a decarbonised world. In future, Australia could host more energy-intensive economic activity, because we have significant, but latent, clean-energy comparative advantages. They include:

- a higher ratio of renewable energy resources to domestic demand than many other countries;³
- an endowment of mineral resources that will remain in demand (including some that are crucial to the energy transition), and existing expertise in mining them; and

1. Albanese (2023).

2. See Wood et al (2023), Wood et al (2022), and Wood et al (2020).

3. Wood et al (ibid, p. 15). Our renewable energy resources include large amounts of land that are high in solar photovoltaic and wind potential. Our domestic demand is a function of population and energy-intensive exports, and both may increase in the future.

- proximity to growing Asian markets.

But Australia also has competitive disadvantages, such as higher labour and construction costs, as well as challenges in firming the electricity grid at low cost.⁴

The electricity sector is the backbone of this transition. Without cheap, reliable, clean electricity, and lots of it, there is no chance of Australia being a 'renewable superpower' in the 21st Century. The transition of the electricity system away from coal to mainly renewables is both inevitable and necessary for Australia to flourish in a net-zero global economy.

Moving to net zero will profoundly change Australia's industrial sector, in three ways. First, there are activities such as coal mining that will be essentially incompatible with a net-zero economy. Then, there are activities such as steel-making that may be able to transform through economic, low-emissions technologies. And, there are activities such as low-emissions extraction and processing of critical energy minerals which are insignificant today but where Australia could capitalise on globally significant comparative advantages.

Some regions, where fossil-fuel extraction is currently the backbone of the economy, may face thousands of job losses as mines close. And some areas will have great economic opportunities due to their reserves of critical minerals and proximity to renewable energy.

4. Herd and Hatfield Dodds (2023, p. 40). Firming refers to maintaining a steady supply of electricity, when it is largely supplied by an intermittent source, such as solar or wind. Zero-emissions firming can be achieved through the storage and release of energy in batteries, traditional hydro power, or pumped hydro systems. Costs for these depend on access to low-cost technologies and installation and – in the case of hydro – suitable geography.

No part of heavy industry and mining will be left unaffected: the coming changes are too big.

1.2 Most of these changes will play out in the regions

A handful of Australia's big industrial facilities are located in cities but most industrial activity takes place in regional Australia. Similarly, coal-fired power stations are not located in major cities. It will therefore be the regions that have to contend with the sweeping changes on the horizon for heavy manufacturing and mining.

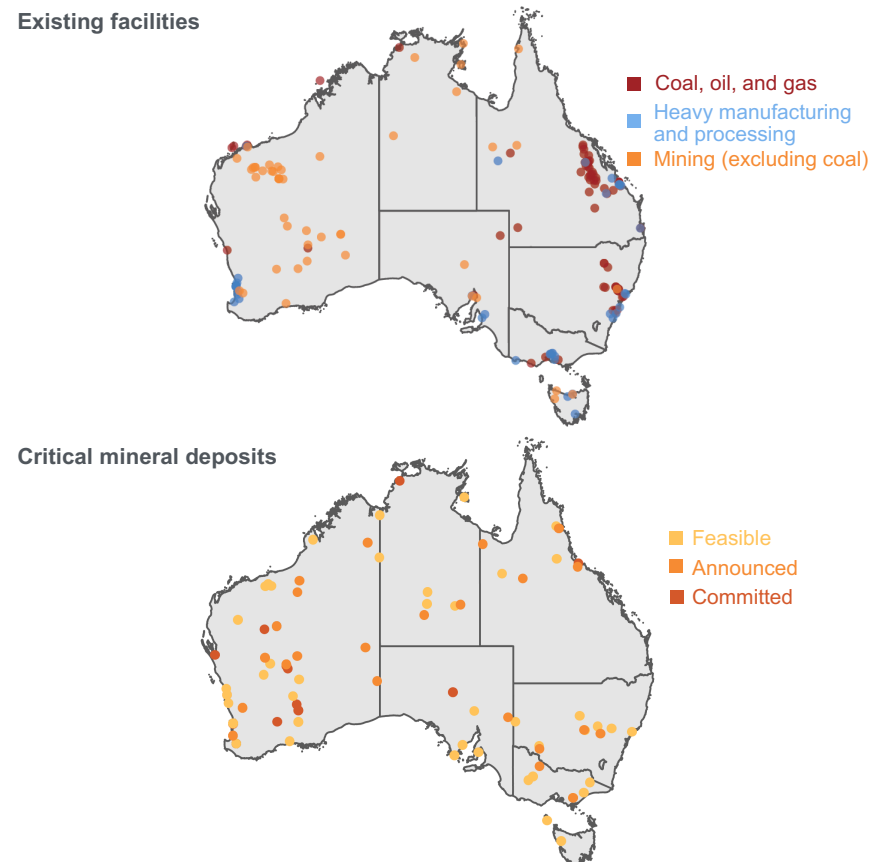
Figure 1.1 (top map) shows the locations of industrial centres. Coal mines are heavily concentrated in central Queensland's Isaac and Mackay regions and in the Hunter Valley of NSW. Coal-fired power stations are also found in these regions, and in the Collie area of WA and the Latrobe Valley in Victoria.

Beyond coal, industrial clusters are dotted in regions across the country, including Newcastle and the Illawara in NSW and Bell Bay in Tasmania. Kwinana – a hive of industrial activity outside Perth – is home to a number of facilities, including a lime and nickel products factory, a silicon smelter, and a titanium dioxide plant. The Pilbara region in WA contains most of the country's iron ore mines.

Opportunities will also unfold in the regions, notably in critical energy minerals mining. Figure 1.1 (bottom map) shows the proven critical mineral deposits across the country. If Australia can tap into the market for critical minerals, these regions could become new centres of low-carbon industrial activity.

Beyond electricity and industry, there are other areas of the economy that will be affected. Fossil fuels are used everywhere, every day, in thousands of small ways, from cars and trucks to gas stoves and heaters. These uses will be largely replaced by electric alternatives. The people whose jobs and businesses rely on manufacturing,

Figure 1.1: Current and emerging industrial activity is concentrated in regional Australia



Note: Offshore oil and gas fields not shown.

Source: Grattan analysis of Clean Energy Regulator (2022) and Resources-energy-major-project-data data.

installing, and maintaining appliances and vehicles that currently use fossil fuels also face the prospect of losing their livelihoods.⁵

1.3 Australia can learn from previous shocks

This is not the first time that an Australian region has faced the shock of a major employer shutting up shop or the permanent decline of an export industry.

For instance, the Ravensthorpe nickel mine in Western Australia closed in 2009, resulting in 1800 job losses,⁶ reopened, then closed again in 2017, affecting 450 jobs,⁷ and reopened again in 2019.⁸ The end of the wool floor-price scheme in 1991 resulted in a permanent decline in Australian wool production to about half what it was in the 1950s and 1960s.⁹ The decline and closure of BHP's steelworks in Newcastle between 1980 and 1999 displaced more than 10,000 workers and at the time was Australia's largest single deindustrialisation event. And the Latrobe Valley in Victoria and the Collie region in Western Australia are going through a permanent shift away from coal-fired electricity right now.

Two lessons emerge from these examples: the importance of empowering communities to lead their own transitions, and the need for long-term engagement.

1.3.1 Let the community lead

In both Newcastle and the Latrobe Valley, the most successful initiatives to improve regional economic diversity have been generated

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5. This is particularly the case because electric alternatives tend to have lower maintenance requirements than fossil-fuel alternatives.
 6. ABC (2009).
 7. Mordant (2017).
 8. Ibid.
 9. Abbott and Merrett (2019).

by the people and businesses of the regions, not state or federal governments.

This bears out experience in regions in other countries: 'locally driven, bottom-up approaches to regional economic development planning appear to be more effective and correspond better to the needs of workers and citizens'.¹⁰ Local leadership better understands the differences between regions, and allows for better targeting to improve regional resilience. Government participation is more effective when it takes a supporting rather than a leadership role.

1.3.2 The transition is long

It is easy to identify when a major industrial employer closes down; it is harder to identify when the ensuing regional economic transition begins and ends.

In the Latrobe Valley, though the announcement of the closure of the Hazelwood coal-fired power station was sudden, the Latrobe Valley Authority was able to start work quickly because of 10 preceding years of work by communities, unions, and the state government to understand what might need to be done. The idea of a Worker Transition Service, for example, had been developed in 2011 when it was thought an impending carbon price would force all generators to close early.

The shock of the Hazelwood closure was short and sharp, but changing a regional economy takes much longer. The Latrobe Valley Authority has been in operation for seven years, long enough to have helped displaced workers into new jobs but not yet long enough to have fully reoriented the Gippsland economy. Full transition will require at least 10 years, if not longer.

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10. Atteridge and Strambo (2021).

Another lesson from the Latrobe Valley is that there needs to be intensive and long-term co-operation between the community, workers, companies, unions, and all three levels of government. A 'just transition' is not just governments' responsibility, and it does not end with jobs. Attracting and building new industries is hard work, as is maintaining the community and social fabric that makes a region worth living in.¹¹

This experience was echoed in Newcastle, where it was difficult to sustain the enthusiasm and skills required to co-ordinate and implement change over a long period.¹²

1.4 A Net Zero Economy Authority could help meet these challenges

The scale and pace of change required to achieve net zero by 2050 is unprecedented. If managed poorly, it will generate social opposition and political friction, which in turn will mean Australia does not capture the large potential benefits of the transition.

Delaying decarbonisation out of fear that it will be messy and difficult is fundamentally unjust to the people who will be most affected. Governments have agreed to the goal of net zero and the timeframe to achieve it. For governments to get the social and political licence for change – that is, the chance to put in place the policies required to capture economic opportunities associated with this transformation without risking political annihilation – they will need to pay attention to social equity.

A Net Zero Economy Authority should form part of the response, but it needs to be carefully designed for success.

11. Drawn from interviews with the Latrobe Valley Authority, and **just-transition-snell**, **La-trobe-valley-victim-industrial-restructuring**.

12. Atteridge and Strambo (2021).

1.4.1 Bottom-up, not top-down

Many factors affect how well a region can adjust to a change in economic circumstances. These include the strength of local institutions, infrastructure, and essential services, as well as human capital, labour market efficiency, technology readiness, local economic diversification, and demography.

Each region is different. A single national approach will not work. A bottom-up process led by the communities themselves and facilitated by local and state government is needed to establish a clear vision and pathways for each region.

This will be an iterative process – no-one has perfect foresight. But clear goals, a toolbox of policies and programs that can be deployed at different times, and long-term commitment from governments to a consistent direction will allow regions to adjust to changing circumstances.

The role of the Authority should be to co-ordinate and expedite access to federal policies and programs that improve economic diversification in affected regions. This should go beyond being a 'post-box': it should form part of a revitalised approach to regional development structures, along the lines of the previous federal government's Regional Deals, but with a strong focus on building economic diversity that can flourish in a net-zero economy.¹³

The federal government, via the Authority, needs to take a long-term, place-based approach, so assistance is part of a cohesive and coherent plan, rather than a series of 'announceable' cash splashes.

13. Regional Deals were agreements between federal, state, and local governments and business and community groups in a particular regional area. Regional Deals supported a 'place-based approach' by putting community-identified priorities at the centre. Source: **Regional-deal-definition**.

1.4.2 A long-term presence

The transition to a net-zero economy is a multi-decade project, and even when the emissions goal is achieved, there will be a long tail of adjustment in regional communities.

To allow regional communities to plan and build new economic bases, they need to be sure that long-term assistance will be available. The Authority therefore needs to have a stable financial footing, bipartisan support, and independence from government. If it is subject to the vagaries of political interference and budget uncertainty, it will fail.

2 The Authority's proposed remit

We welcome the proposal to establish a body to coordinate whole-of-government consideration of net-zero economy transformation opportunities and challenges. As the transition of the electricity sector has shown, there are many moving parts to the transition, and it will only move as fast as the slowest one.

We also welcome the proposal to allow the Authority to initiate its own work and recommend actions to government. This could cover not just major initiatives, but also small changes to regulatory structures and processes that are impeding the smooth transition to net zero.

Educational and promotional activities are also much needed, though they must be designed well. As recent CSIRO research shows, Australians believe their knowledge of the energy transition is limited.¹⁴ Given the profound impact this transition will have on the Australian economy over the next two decades, this gap should be filled. The Authority could contribute to improving general understanding of the importance and impacts of the energy transition.

The Bill gives the Authority a broad range of possible functions, but this risks making it unfocused.

Overall, the legislation is framed as a top-down approach to assisting regions. As noted in Section 1.3.1, experience shows that communities that lead their own transition are ultimately more resilient and better off than those who do not.

There are two glaring omissions from the Authority's proposed remit.

Firstly, its role in assisting displaced workers is limited to workers associated with fossil-fueled power stations.

Secondly, its remit is limited to strongly affected regions, and leaves out other cohorts of displaced workers that are not regionally concentrated.

2.1 The Authority needs more focus

Section 16 of the Bill provides for a very broad range of functions for the Authority. But to be successful, the Authority needs to choose where to play, and ensure it is focused on activities where it can have the greatest impact.

Adding a requirement for the Board to present the Minister with an annual work plan would add some discipline around the Authority's activities without constraining its capacity to act. Publishing the work plan would help the public understand what the Authority is focusing on and why.

The work plan could include things such as capacity building in regions to guide future economic development, working with state-based regional transition authorities on particular activities, or funding and facilitating the development and delivery of regional strategies to improve economic diversification.

Recommendation 1: Require an annual work plan

Under section 19 (Functions of the Board), add:

In each financial year, the Board must develop a work plan and submit it to the Minister. The work plan must set out the main activities proposed to be undertaken by the Authority and the Board during the financial year and the following two financial years, and how they are proposed to be undertaken.

14. April CSIRO report.

2.2 The proposed approach is too top-down

Experience from Australian regions that have faced economic restructuring due to a large employer closing shows that it is the people who live in the regions who have the best ideas for economic transformation. Ideas imposed from the outside are less likely to lead to long-lasting change to the region's economic base, or to long-term employment opportunities.¹⁵

This points to a need for the guiding ethos of the Authority to be supporting regional leadership. This could be done by amending the objects clause of the legislation, and the functions of the Authority.

Recommendation 2: Encourage regional leadership

In section 3, add:

(d) Facilitate regional leadership of economic diversification in response to Australia's transition to a net zero emissions economy.

In section 16, add:

(c) to facilitate regional and local leadership of regional economic diversification that responds to, and benefits from, the transition of the Australian and global economy to net zero emissions.

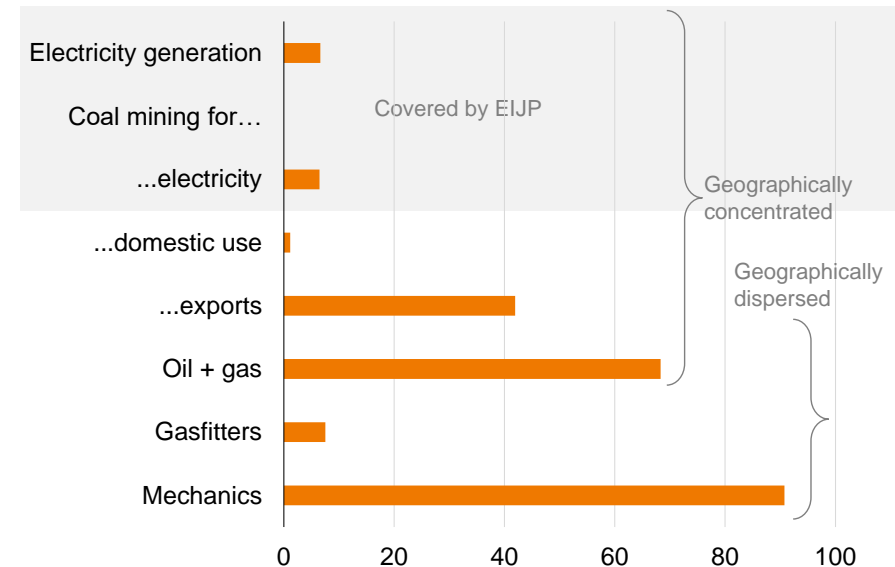
2.3 Power stations are not the only large, carbon-intensive, regional employers

Section 6 of the Bill restricts the definition of a 'closing employer' to coal and gas power stations. But while these are the facilities most immediately facing closure, they are not the only large, regional, carbon-intensive employers.

15. Atteridge and Strambo (2021).

Figure 2.1: The number of jobs covered by the Energy Industry Jobs Plan is small

Jobs ('000s)



Notes: EIJP = Energy Industry Jobs Plan. Oil and gas jobs are shown as not covered because they are usually geographically remote from gas-fired power stations; and are shown as both remote and dispersed because of the large number of fly-in-fly-out workers. Coal mining jobs split reflects volumes of coal for each use as reported in DCCEEW (2023). 'Mechanics' category includes motor mechanics, diesel motor mechanics, motorcycle mechanics, and small-engine mechanics.

Source: Grattan analysis of ABS (2021).

Coal mining and oil and gas extraction are much larger employers, as shown in Figure 2.2.¹⁶ While some coal mining jobs are associated with power stations (in the Latrobe Valley for instance), most are associated with coal exports (Figure 2.1). In addition, as shown in Figure 1.1, most of Australia's large industrial facilities are located in the regions, and if these facilities find themselves unable to compete in a global net-zero economy, their closure will lead to regional job losses. Australia also has regional clusters of industrial activity where there are close economic dependencies between facilities of different types, such as in the Kwinana area of Western Australia.

Limiting the definition of 'closing employer' is at odds with the objects clause of the Bill, which states an intention to 'promote orderly and positive economic transformation as *the world* decarbonises' (emphasis added). The objective acknowledges Australia's exposure to global energy markets as a major fossil fuel exporter, and that the impacts of the transition will come as much from the actions of other governments as from our own.

The limited definition also creates two classes of workers, for no good reason. For example, a worker in the Hunter Valley at a coal mine associated with a power station would be eligible for the Energy Industry Jobs Plan, but a worker in the same region at an exporting coal mine would not – even though those two people may do exactly the same job, face exactly the same challenges if their mines close, and may even live next door to each other.

2.3.1 Broaden the definition of 'closing employer' to allow future governments more flexibility

It's possible that a future government may wish to assist employees of other large industrial facilities to find new jobs. Given the speed

required to transition the economy to net zero, and Australia's long-running skills shortages, a more structured approach to helping displaced workers shift to new jobs could reduce the cost of the transition. For example, this could involve helping employees in coal mining find new jobs in mining other commodities.

Broadening the definition to the following would give future governments the flexibility to address future closures of industrial facilities or changes in activity in industrial clusters. If the government of the day wanted to prioritise particular regions or industries at particular times, this could be done via a ministerial direction under section 20.

Given the diverse nature of other industrial facilities, the CEO could be given discretion to decide whether to nominate an industrial facility as a closing facility. However, this should be limited to large facilities. The Safeguard Mechanism participation threshold could be used to set the limit. Other criteria for the CEO to consider could also be added.

Recommendation 3: Broaden the definition of closing employer

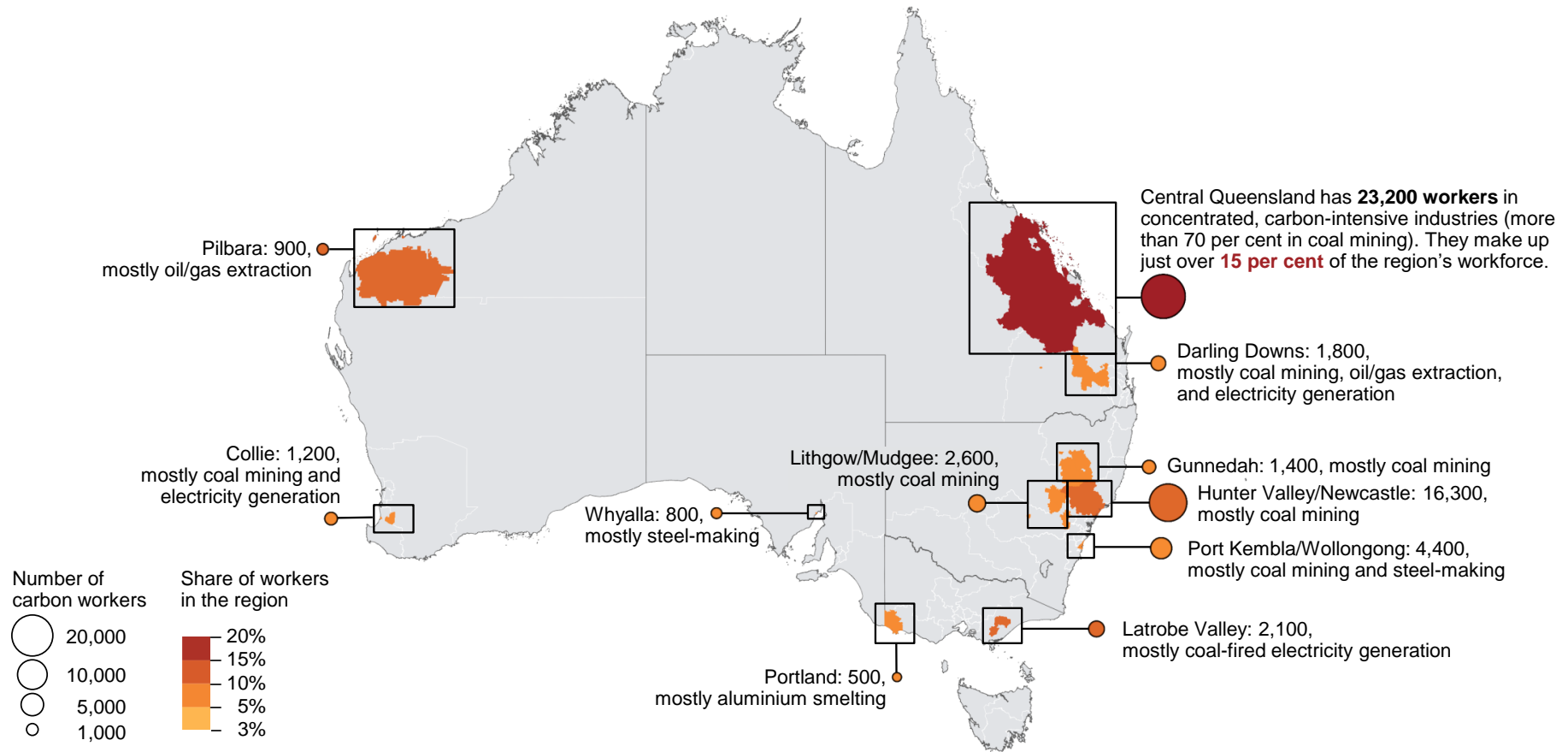
Amend section 6 to add:

(3) An employer may also be a closing employer if it owns or operates a facility that is subject to the Safeguard Rule. The CEO may designate such a facility as a closing facility subject to clause XX.

Add an additional clause with criteria the CEO must consider before designating an industrial facility as a closing facility.

16. This figure uses data from the 2016 Census. Numbers are unlikely to have changed significantly in the intervening years.

Figure 2.2: Several Australian communities have significant concentrations of carbon workers
 Working-age, employed residents in regionally-concentrated, carbon-intensive industries (as of 2016 Census)



Notes: : Worker numbers are determined from the population aged 18-65 in the 2016 Census. Numbers are unlikely to have changed significantly in the intervening time. The ABS has divided Australia into more than 2,000 statistical areas known as 'SA2s'. An SA2 represents a community that interacts together socially and economically, usually containing 3,000 to 25,000 people. SA2s sit within larger areas called SA3s, which sit within even larger areas called SA4s. Carbon workers in each SA2 were deemed regionally-concentrated if at least 5 per cent of workers at the SA2 level – or at least 3 per cent at either the SA3 or SA4 level – worked in carbon-intensive industries. SA2s with fewer than 100 carbon workers are not shown. Iron and steel smelting job estimates were not taken from the Census, but from Grattan estimates of the steel-making jobs present in Whyalla and Port Kembla, calibrated to a benchmark of 500 jobs per million tonnes of rated capacity based on IEA Environmental Projects (2013, Section E, pp. 27-28). This was done to exclude jobs in less carbon-intensive fabrication activities that were captured within the iron and steel smelting category. A small number of aluminium smelting jobs near Bell Bay and George Town in Tasmania were excluded given the availability of zero-emissions hydro-electricity in that state.

Source: Wood et al (2020).
 Grattan Institute 2024

2.3.2 The energy transition will affect workers across the economy

The Authority's remit is to focus on workers in regions with strong concentrations of emissions-intensive industries. This is welcome – these workers are likely to feel the impacts of economic restructuring first, and the flow-on effects to regional economies are well-documented.

However, there are other cohorts of workers who will also be strongly affected, but do not happen to be geographically concentrated. Examples include plumbers and gas-fitters, whose jobs will disappear as gas becomes a smaller part of the energy mix. And mechanics for internal-combustion vehicles, whose jobs will disappear as electric vehicles take over.¹⁷

These jobs currently exist in every town and suburb of Australia. And there are many more of them than workers in coal-fired power stations (Figure 2.1).

These workers also need pathways to new jobs. Giving the Authority an explicit remit to engage with these workers would not only support individuals, it would build social licence for the transition by assuring the Australian public that people in their towns and cities affected by the energy transition can find a place in the new economy.

The simplest way to do this, while maintaining flexibility for the Authority, would be to be explicit in the Bill that 'emissions-intensive industry' also includes activities such as gas appliance manufacturing, gas fitting, and diesel mechanics.

Recommendation 4: Include geographically dispersed workers

In section 16(2), add:

Emissions-intensive industry includes industries that manufacture, install, or maintain equipment, appliances, vehicles, or devices that consume fossil fuels.

17. Battery electric vehicles need much less maintenance than traditional trucks and cars, because they have fewer parts: <https://www.osti.gov/biblio/1780970/>.

3 Putting the Authority on a stable footing

As we noted in Section 1.4.2, the initial effects of a closing industrial facility may be a sharp shock, but the adjustment has a long tail. Ideally, diversifying regional economies begins well ahead of facility closures, to cushion the effects.

For the Authority to play a role in facilitating regional leadership towards economic diversification, it needs to be on a stable long-term footing. Regional leaders and private-sector investors will be doing much of the work to deliver regional transitions, but stop-start, short-term support from government is not helpful.

To take a true place-based approach that creates real change and strengthens regional economies, the Authority must be able to take a long-term view. It will not be able to design or commit to long-term activities if it does not have budget certainty beyond three-year funding envelopes.

As presently proposed, the Authority has a limited number of functions that it *must* do, largely related to the Energy Industry Jobs Plan. These are arguably the least important part of its role because, as we show in Figure 2.2 and Figure 2.1, they relate to a very limited number of workers. And they do not contribute to regional economic diversification. If budgets are tight, the Authority's activities are likely to contract only to these 'must do' activities, at the expense of those that have a greater role in facilitating a smooth transition to net zero.

To maximise the Authority's chances of success, part of its budget should be legislated for 10 years. This could be limited to sufficient departmental funding to cover a minimum number of staff, and a small amount of administered funding to allow the Board to implement projects consistent with the work plan we recommended in Section 2.1.

It does not need to be a large budget, because the Authority does not have investment functions. Additional funding could be subject to ordinary budget processes and rules.

A legislated budget is not unprecedented. The Australian Renewable Energy Agency (ARENA), the Clean Energy Finance Corporation, and the National Reconstruction Fund all have legislated budgets, which allows them to operate effectively over time-frames that match the private sector's.

A legislated budget would not bind future governments: the budgets can be changed by passing legislation (as was done for the ARENA budget in 2016).

Recommendation 5: Legislate a minimum budget for the Authority

Add a section to the Bill establishing a minimum budget for the Authority over 10 years.

4 The Energy Industry Jobs Plan

As we understand it, the Energy Industry Jobs Plan is a process, rather than a plan as usually defined. Its intent is to provide opportunities for workers from closing power stations (and associated businesses) to redeploy to similar roles in other power stations.

An announcement of intended closure triggers a ‘community of interest’ process, carried out by the Authority. This identifies who is affected by the closure, and their skills, and also other companies that may have an interest in employing these workers. The latter companies are voluntary participants, identified through an expression-of-interest process.

The Authority then applies to the Fair Work Commission with the above information, which the Commission uses to make a ‘community of interest declaration’. In doing so the Commission consults with an Energy Industry Worker Redeployment Advisory Group. This group is appointed by the minister and includes representatives of employers and employees.

Once the declaration is made, the closing employer has certain obligations, including to:

- Seek expressions of interest from its employees for redeployment
- Provide career and financial planning advice on request (at the employer’s cost)
- Allow employees time off to access the above and attend recruitment activities from receiving employers

We recommended in Section 2.3.1 that the Bill be amended to expand the definition of a closing employer, so that the Energy Industry Jobs Plan can be used to assist displaced workers in other sectors.

The number of available jobs for power station workers to redeploy to will shrink as the sector shrinks. And even if strongly affected regions diversify their economies, there is no guarantee that suitable jobs will emerge in the region for displaced workers.¹⁸

To manage for this, the ‘community of interest’ should explicitly include a wide range of companies, and place no limit on where those companies can be.

To make things easier for receiving employers, there should be the option to register with the Authority once, rather than having to do it each time a trigger notice is issued.

Recommendation 6: Maximise the chances of displaced employees finding new jobs

Delete section 8 (geographic area).

In section 6, add: *(11) For the avoidance of doubt, a receiving employer need not engage in the same activities as a closing employer.*

18. The experience of Newcastle after the closure of the BHP steelworks bears this out. While more people were employed in high-skilled jobs than before the closure, more part-time, low-paid, and/or temporary jobs were also created. In essence, semi-skilled, well-paid, permanent, full-time jobs disappeared: Atteridge and Strambo (2021)

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