MANUFACTURING 2035
800,000 NEW JOBS
AUSTRALIAN MANUFACTURING 2035

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AUSTRALIAN MANUFACTURING 2035

Australia has a strong history as a manufacturing nation. Australia is the largest producer of alumina; we have developed techniques in copper smelting that remain world's best practice and we produce some of the world's highest quality food products.

Much of our manufacturing success stems from the use of our abundant natural resources. Australia has always had strengths in turning its rich soils and minerals into higher value-added products.

“Australia has a proud history in manufacturing but urgent action is required to secure its future.”

This successful history, however, should not hide the difficulties Australian manufacturing has experienced over the past few decades. As trade protection measures (such as tariffs) were reduced, some Australian manufacturing industries - such as car production and textiles - all but disappeared. Record demand for Australia's resource exports has also kept the Australian dollar relatively high making it tough for manufacturing industries that compete against mass produced and cheaper imports. Adding to these pressures, Australian manufacturers are paying 91 per cent more for electricity and 48 per cent more for gas over the past decade.¹

As a result, the last decade has been the first on record that Australian manufacturing has declined in real terms. Australian manufacturing's share of Australia's economic output has been falling for the last 30 years, but until the last decade the output of Australian manufacturing had still been growing. Over the past 10 years, however, Australian manufacturing output fell by 5 per cent in real terms.²

This has meant the number of Australians employed in manufacturing has hit record lows. By the end of 2020, the number of Australians employed in manufacturing reached a new record low of fewer than 850,000 people. At its peak in the late 1990s, the Australian manufacturing industry employed almost 1.2 million Australians. More than 200,000 jobs have disappeared in 30 years, with the decline accelerating over the last decade.

The Nationals propose that Australia strives to reverse this trend. The Nationals believe that a stronger manufacturing industry will mean a stronger Australia better able to respond to emerging strategic threats. A stronger manufacturing industry will also help develop regional parts of our country. It makes strategic sense for Australia to develop larger populations right across our country.

This paper outlines the goal of almost doubling the number of Australians employed in manufacturing by 2035 to create 800,000 new jobs. This is an ambitious but achievable goal. If we were to lift the number of Australians employed in manufacturing by 800,000 by 2035, we would achieve around 10 per cent of Australians employed in manufacturing, which is the share of people employed in manufacturing in the United States.

Currently, Australia has the second lowest share of its economic output coming from manufacturing among developed nations. Only Luxembourg has a lower share of its economic output devoted to manufacturing. By creating 800,000 new manufacturing jobs, we could lift our share of manufacturing output close to that which exists in the United States.

To get there we need to adopt brave policies that will challenge the economic consensus of the past few decades. Just as we should not return to the policies of "protection all around" of the 1960s nor should we religiously hold true to the economic rationalist policies of the 1980s. Australia needs to have a manufacturing policy suited to our times - a time of rising geostrategic threats and of fragile global supply chains.

The policies we recommend here are clinical and contemporary responses to the modern environment. We have established a 9-point plan to reach our goal of doubling employment in Australian manufacturing:

1. Take countervailing action to **protect strategic industries** where subsidies in other countries have an adverse impact on Australia’s ability to develop strategic industries.

2. Increase **trade promotion efforts and grow exports** for our manufacturing industries.

3. Expand the remit of the **Regional Investment Corporation** to include new low-cost, long-term finance for strategic manufacturing industries.

4. Create a **decentralised Office of Regional Manufacturing** with offices in Gladstone and Newcastle with a mandate to achieve specific growth targets in Australian manufacturing’s priority areas.

5. Provide **tax incentives** including accelerated depreciation to encourage investment in manufacturing capital, and in research and development.

![Manufacturing as share of GDP](https://example.com/graph)
6. Strengthen **Australian Government procurement** policies to back Australian manufacturing first.

7. Facilitate **early exposure to trade qualifications and harmonise our qualifications and employment conditions.**

8. Invest in **reliable and affordable energy** and in **strategic infrastructure** that can support manufacturing, including in coal and gas fired power.

9. Fund **exploration to find a new oil province** in Australia to replace the Bass Strait.

These policies will challenge some dearly held truths of Australian economic policy. We do not dispute that Australia has largely adopted sound economic policies over the past few decades. These policies have helped deliver almost three decades of uninterrupted economic growth. However, as Australia experiences its first recession for three decades, we should adapt our policies to the current times. The COVID-19 pandemic, coupled with its impact on global supply chains, calls for Australia to have a much stronger manufacturing sector than we have so that we can make in Australia again.

**Strategic need to reboot Australian manufacturing**

The reduction in our nation's manufacturing strength comes at a time of increasing strategic threats to Australia.

The COVID-19 pandemic and efforts to limit its human impact has resulted in an economic crisis not seen for generations in Australia. It has restricted economic activity, disrupted supply chains, and limited the movement of goods and people. It has led to high levels of unemployment and a recession.

For Australia it has exposed two critical issues:

1. the nation’s reliance on other countries for manufactured goods, particularly those critical to health services, and dependence on global supply chains; and
2. Australia’s limited manufacturing capability, particularly the ability to pivot and adapt in times of national crisis to produce goods needed.

The rising geopolitical tension in our region has been building over the same period that our manufacturing capacity has been declining. We cannot allow this trend to continue. The Australian Government has been right to invest in defence manufacturing capability over the past decade. But Australia will be much better prepared to face further rising tension if the overall position of our manufacturing industry is strong and agile, not just the small part of it devoted to defence manufacturing.

These strategic risks have been further highlighted by the COVID-19 pandemic. That crisis has highlighted our specific vulnerability connected to medical supply chains, with all countries seeking to secure their own supplies of medical equipment and some countries placing restrictions on the
export of pharmaceuticals or medical supplies. Australian manufacturers proved their agility and responded well with an increase in the production of sanitiser and ventilators. However, if our manufacturing industries continue to decline then our ability to respond to future crises will weaken. The pandemic has highlighted broader issues with fragile global supply chains. It is not healthy for China to have such a dominant position in so many key global commodities. China accounts for more than half of the world’s production of steel, copper, aluminium and rare earths. It has become increasingly important in the production of machinery and electronic goods. Australia should be part of a global effort to diversify supply chains so that the global trading system can be more resilient.

Further the Commonwealth government through its National COVID Taskforce, has identified as one of its key priorities, the need to reinvigorate and bolster Australia’s manufacturing capability as a matter of national interest. This presents a unique opportunity for regional Australia to not only be placed front and centre of Australia’s economic recovery, but to play a lead role in reinvigorating Australia’s manufacturing capabilities.

Manufacturing is important in regional Australia

Regional Australia is the engine room of the Australian economy. Today it accounts for over 60 per cent of Australia’s exports. Regional Australia, however, remains a heavily commodity-focused export economy covering industries such as agriculture, forestry, fishing, and resources. Boosting manufacturing capabilities in regional Australia is an opportunity to leverage the regions’ comparative advantage in these industries and their access to natural resources, while adding further value to their exports by turning primary products into manufactured goods and complex products. Manufacturing is an important industry in regional Australia. Over 30 per cent of Australians employed in manufacturing are in areas outside of capital cities.

Manufacturing has played a crucial role in the development of many regional towns. Over 20 Australian regions (outside of capital cities) have a greater than average share of employment in manufacturing.

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3 Department of Foreign Affairs and Trade (DFAT), *Trade and Investment at a Glance 2019*, 2019
Manufacturing industries are especially important in towns in and near Australia’s Murray Darling food bowl. Shepparton, the Riverina, Ballarat, Bendigo and Wide Bay all have extensive food manufacturing businesses based on easy access to high quality agricultural output.

Heavy industry is also a key feature of many regional centres based around access to energy and minerals. Gladstone, Newcastle, Gippsland, Whyalla and Karratha have been built on the back of access to high quality coal and gas energy sources.

This demonstrates why Australia’s manufacturing strength, and its future, remains concentrated in regional Australia. Australian manufacturing excels in areas where our natural resources provide a competitive advantage in value adding to these materials. Our energy, mineral and agricultural resources are all in regional Australia and that is why so much of our manufacturing strength is centred there.

Investing further in manufacturing will help deliver stronger economic growth in regional Australia. The health pandemic has also exposed the risks of having too much of Australia’s population concentrated in a few major centres. When COVID restrictions were imposed on Sydney and Melbourne, 40 per cent of our population was in some form of lockdown. The Pilbara has an economy larger than 119 countries yet just 60,000 Australians live there.4

It would make much more strategic sense for Australia to spread its population out across our large continent. Investing in a stronger manufacturing industry could help us achieve that.

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4 Australian Government 2015, Our North, Our Future: White Paper on Developing Northern Australia, p.1
The Nationals plan for manufacturing renewal

Reversing the declining trend in Australian manufacturing will not be easy. The reasons for Australia's manufacturing decline have been global. The rise of China and large markets in Asia have made it difficult for Australian manufacturers to compete.

Yet other countries demonstrate how advanced western countries can sustain strong manufacturing industries even in the face of intense global competition. The United States has achieved a remarkable resurgence in manufacturing off the back of low energy prices and the reintroduction of some protective measures.

The United States’ achievement should be a blueprint for Australia to achieve its own renewal of domestic manufacturing.

The Nationals have developed a 9-point plan for an Australian manufacturing resurgence. These actions are based around focusing on our strengths, and the reintroduction of direct government support for manufacturing targets.

We believe that the proper implementation of these policies will deliver 800,000 new manufacturing jobs by 2035. The government should set as a target the creation of 800,000 new manufacturing jobs. This sends a clear message to the public and private sectors of the need to focus on developing our manufacturing industries as a national priority.

Focus on our strengths

1. Take **countervailing action to protect strategic industries** where subsidies in other countries have an adverse impact on Australia’s ability to develop strategic industries.

The COVID-19 pandemic has highlighted the need to protect supply chains in essential products, like medical supplies and food and beverages. Even before the pandemic the Australian Government was seeking to create more stable supply chains in critical minerals (like rare earths) and has been investing to build up our defence force capacity, including by increasing the manufacturing of defence equipment in Australia.
The Australian Government recently announced the following strategic manufacturing priorities as part of our $1.3 billion Modern Manufacturing Initiative:

1. Resources Technology & Critical Minerals Processing
2. Food & Beverage
3. Medical Products
4. Recycling & Clean Energy
5. Defence
6. Space

The Nationals believe that fibre processing should be explicitly added to the food and beverage category.

While these areas are important to focus on, Australian industry will continue to struggle in the face of large-scale subsidies provided to businesses in other countries. Under international trading agreements, the Australian Government can take countervailing action against countries that subsidise their own industries.

The Nationals believe that the Anti-Dumping Commission should be asked to complete a detailed report on the extent of subsidies provided by other countries to businesses in the six key strategic industries identified under the Modern Manufacturing Initiative.

These investigations would give the Australian Government the evidence to take direct, protective action to support the development of home-grown businesses in these strategic sectors. This action could include the imposition of countervailing duties that would help grow industries that have suffered from unfair subsidies provided by other countries. Given that some of these subsidies may restrict Australia’s ability to export to other markets, these investigations may also provide weight for the need to provide like for like subsidies to Australian industries.

Unless we are prepared to fight fire with fire, we are unlikely to grow strategic industries in the face of the massive subsidies that other countries continue to provide.

2. Increase **trade promotion efforts and grow exports** for our manufacturing industries.

Investigatory action by the Anti-Dumping Commission can help to ensure domestic Australian manufacturing replaces imported manufactured goods. However, given the relatively small size of the Australian market, it will also be crucial to expand exports of Australian manufactured goods.
The Export Market Development Grant (EMDG) scheme has aided advanced manufacturers to undertake marketing and promotion activities in global markets. A new EMDG round should be administered once international borders are opened so that exporters can re-engage with existing markets and expand into new international markets to assist with the recovery of their businesses. All advanced manufacturing businesses should be eligible to apply, even if they have previously received a grant under the scheme.

Services from Austrade are well used by advanced manufacturers, but it is important that they meet the needs of businesses who access them. Austrade staff must ensure that they understand the products and market needs of the businesses they assist so that time and finances are not misspent. This is particularly important for post-COVID recovery assistance for exporters. Having traders or ex-industry personnel based in-market will provide the necessary experience to benefit industry using Austrade services and improve technical engagement with export markets.

Direct government support

3. Expand the remit of the Regional Investment Corporation to include new low-cost, long-term finance for strategic manufacturing industries.

The Australian Government already provides concessional finance for clean energy, infrastructure in Northern Australia, the expansion of exports and in agriculture. These are all worthy objectives warranting concessional finance, but so is seeking to bring back manufacturing jobs to Australia, so we should also establish a concessional lending facility for investments in our manufacturing capacity.

Some of these investments can qualify for lending from Export Finance Australia but only to the extent that a manufacturing investment helps grow Australian exports. Any manufacturing investments that were focused on replacing imports to supply the domestic market would not qualify for Export Finance Australia.

Many other countries have government backed lending facilities to support investments in manufacturing. There are 13 such finance organisations in Europe and they also exist in China, Japan, Singapore and India. The German Development Bank (KfW) is perhaps the most famous of these banks. It has built up over $800 billion of assets and has more than 6,500 employees.

The Australian Government should build on these examples by establishing a $5 billion manufacturing concessional loan program to support investments in our manufacturing sector. This agency could work within the Regional Investment Corporation (RIC), and leverage off their expertise, with the explicit mandate of supporting Australian manufacturing businesses. It is important that any concessional finance provided to applicants be at no more than the Commonwealth’s borrowing rate.
In expanding the RIC’s remit to facilitate targeted manufacturing finance, consideration must be given to increasing the RIC’s risk appetite across the targeted strategic industries to enable manufacturers to be more agile in challenging conditions.

4. **Create decentralised Offices of Regional Manufacturing** in Gladstone and Newcastle with a mandate to achieve specific growth targets in Australian manufacturing’s priority areas.

A renewed focus on the revival of Australian manufacturing, along with the designation of a number of strategic areas and the allocation of dedicated funding, warrants regionally based Offices of Regional Manufacturing to support the regions in achieving this ambitious goal.

The establishment of two decentralised Offices of Regional Manufacturing in Gladstone and Newcastle speaks to the value of the regions and their potential to become the backbone of Australia’s manufacturing industries. The selection of these existing large regional hubs makes practical sense given their existing manufacturing footprint and access to key infrastructure and inputs.

Critical to ensuring the effectiveness of these offices, the mandate should establish key growth targets in strategic industries, including jobs and domestic/exports growth. The mandate could also charge the Offices with assisting in the facilitation and/or delivery of some of the measures identified in this paper.

We envisage offices that work directly with regional communities, manufacturers, private investors and all levels of government (including their agencies) to achieve our goal of creating 800,000 new jobs in Australian manufacturing.

5. **Provide tax incentives including accelerated depreciation** to encourage investment in manufacturing capital.

The share of Australia’s private investment in manufacturing has fallen dramatically in the past 30 years. In 1990, manufacturing accounted for almost a third of Australian investment in private businesses. In 2019, that share had dropped to just 8 per cent. In 30 years, there been almost no growth in the amount of investment going to Australian manufacturing in real terms. In 2019, $9.2 billion was invested in Australian manufacturing compared to $8.9 billion in 1990.\(^5\)

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If we are to grow our manufacturing industry again there is a clear need to increase the amount of private investment going to Australian manufacturing. One way to help encourage this would be for the Australian Government to provide tax incentives for such investment.

A successful, recent tax incentive has been that provided for instant tax write-offs. This scheme allows small and medium sized businesses to immediately depreciate any investment below $30,000 (and recently expanded to any asset below $150,000 for a temporary period). It has been extended numerous times given its popularity.

The Australian Government has already announced that businesses with turnover up to $5 billion will be able to deduct the full cost of eligible depreciable assets of any value in the year they are installed.

The Nationals propose that this scheme should be further modified to support manufacturing businesses located outside of capital cities by:

- removing the $5 billion turnover cap for manufacturing businesses, and
- providing a 150 per cent tax deduction for investments in Australian manufacturing in the strategic industries identified above

These incentives would provide broad support for all regional manufacturing businesses and help avoid the problem of “picking winners” that comes from a grants-based manufacturing support system. In effect, the above proposals would help lift all Australian manufacturing businesses and, of course, those that are better run will be lifted higher automatically. This will maximise the chances of businesses evolving into viable, long-term manufacturers.

Additionally, advanced manufacturing requires private and government investment in research and development (R&D) to foster new technologies and processes and we note our concern that Australia
has lagged our competitors in R&D. Australia’s overall investment in R&D has declined to its lowest level since 2005-06 to 1.79 per cent of GDP in 2017⁶, while business R&D expenditure is lower than at any time since 2002. This remains well-below the OECD average of 2.37 per cent of GDP⁷ for developed nations.

The Government provides R&D incentives, which are essential to support innovation in advanced manufacturing, particularly to keep pace with digitalization and new technology. The importance of R&D incentives is evidenced by the number of tax incentive programs offered across most OECD countries and we would welcome further targeted support to re-build our manufacturing industries.

6. **Strengthen Australian Government procurement policies** to back Australian manufacturing first.

The Australian Government is a substantial purchaser of goods. In 2015-16 Commonwealth agencies reported spending of $57 billion across 70,338 contracts. Almost 10,000 of the businesses supplying these goods and services were small to medium sized businesses.⁸

However, there is no specific obligation under Australian Government procurement rules for Commonwealth agencies to support Australian content. Businesses bidding for Commonwealth procurement of greater than $20 million must prepare and implement an Australian Industry Participation (AIP) plan. These plans must:

- demonstrate how the organisation will provide full, fair and reasonable opportunity to Australian industry to supply goods and services to the project; and
- endeavour to maximise opportunities for Australian industry to participate in all aspects of the project.

There is little evidence that these plans have helped promote more procurement from Australian suppliers. This is not surprising given that contractors are only asked to provide full, fair and reasonable opportunity to Australian industry and to endeavour to maximise opportunities for Australian industry.

Other countries provide more direct support for local procurement. For example, the **Buy American Act** provides for the “mark-up” on the price of any tenders that do not meet a “domestically produced” criteria. There are different mark ups for small businesses, defence and other strategic initiatives.

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⁶ OECD, Main Science and Technology Indicators – 2019 data release, 2019
⁷ OECD, Main Science and Technology Indicators – 2019 data release, 2019
The Australian Government should implement a similar *Buy Australian Act* that provides a measurable benefit to Australian manufacturers when competing to supply Australian goods and services.

Some other changes could also be of benefit. The Commonwealth’s procurement rules could be amended to ensure that any obligations placed on primary contractors in terms of local contracts apply to all its sub-contractors as well. In addition, rural and regional small and medium businesses be added to the list of exemptions under Appendix A, Exemptions from Division 2 of the Commonwealth Procurement Rules.

Lastly, procurement rules for ‘hidden costs’ beyond the successful tender price must be established. Lower, competitive quotes offered by overseas suppliers often exclude additional, unquoted costs including:

- Sampling;
- Product development;
- First bulk runs for product adoption;
- Technical services;
- Quality Assurance;
- Merchandising (order tracking);
- Stock Investment;
- Stock Write Down;
- Currency risk; and
- Supplier audit costs.

It has been suggested by some that these unquoted costs can increase the original tender by up to 25 percent. If this is substantiated, it deprives local suppliers the opportunity to competitively tender on an even playing field.

7. Facilitate **early exposure to trades and harmonisation** of our trade qualifications and employment conditions.

Sophisticated and advanced manufacturing cannot function or compete without a highly skilled and educated workforce. Australia’s most successful manufacturers tend to employ more workers with crucial STEM (Science, Technology, Engineering and Mathematics) skills.

Yet many regional and rural communities still struggle to attract enough skilled and experienced professionals required to maintain and grow their communities and the industries supporting those
communities. As one Queensland Productivity Commission (QPC) report⁹ in 2017 cited “manufacturers in Queensland reported difficulties in attracting and retaining staff, particularly in regional areas.” A range of ‘flexibility and mobility’ factors influence the decisions of potential skilled and experienced workers to move to a regional community including:

- secondary job opportunities for spouses and/or children
- a perceived lack of career development opportunities
- work and pay conditions on offer
- education and training opportunities
- place identity and social networks, and
- infrastructure, housing, and health provision.

Education is also vital. Much of Australia’s innovation infrastructure – universities and technical colleges – remain concentrated in metropolitan Australia. The ‘university city/town’ is embraced in countries such as Germany and USA. Australia is fortunate to already have a network of regional universities as well as TAFE and technical colleges. There is an opportunity for government to support better integration between regional universities, TAFE, schools, manufacturers and supporting businesses with regards to training, skills development, and R&D.

We believe the Joyce ‘Strengthening Skills’ Review correctly identified the need to make clearer the secondary school pathways from years 9 to 12 and we endorse an approach to ensure students are adequately advised on their future career options and encouraged to learn new skills.

In 2019, the Coalition Government announced funding for 10 Industry Training Hubs, which will be located in areas of high youth unemployment to work with and encourage year 11 and 12 students to build skills to help reposition vocational education as a first-choice option. Given the focus on integration and building skills, we endorse the expansion of these hubs to strategic areas linked to manufacturing and would welcome an expanded remit to encapsulate mature age students seeking to change careers.

We consider this approach will align with our Government’s recently announced $1.2 billion Boosting Apprenticeships Commencements Program, which will support 100,000 new apprentices across Australia.

The TAFE system needs to be overhauled to better support skills and training for advanced manufacturing, and issues for employers that extend from the employment of apprentices when TAFE issues arise. Harmonisation of TAFE trades and apprenticeship courses should be a key policy

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⁹ QPC, Manufacturing, October 2017
outcome to streamline and simplify their delivery. Doing so will relieve advanced manufacturers of issues related to TAFE apprentices and their employment such as differences in qualifications accepted by states. TAFE lecturers and teaching staff must be assessed for currency of industry knowledge and skillsets to overcome challenges faced with the quality of teaching being experienced by employers of TAFE apprentices. Regular refresher courses and improved professional development opportunities for TAFE teaching staff could be a solution to this issue.

Additional to the issues identified with the employment of TAFE apprentices, further improvements to industrial relations that will benefit manufacturers include the harmonization of employment conditions across jurisdictions. Doing so will simplify employers’ understanding of legal requirements that must be met when basing staff members in multiple jurisdictions. Additional support for administrative comprehension for industrial relations, for example payroll tax for staff employed in different jurisdictions, would also be of benefit to advanced manufacturers.

TAFE apprentices whose work and study hours require adjustment because of changes to course delivery has been identified as a common issue affecting advanced manufacturers. Flexibility in employment conditions to assist employers when work hours need to be increased because of less face-to-face TAFE hours costs businesses. Stronger requirements on TAFEs to deliver teaching hours as per course outlines should be implemented to overcome this challenge faced by employers of TAFE apprentices.

Industrial Relations is a complex policy space and not the focus of this policy paper, but the Nationals welcome any action to support the streamlining and simplification of the IR system to support SME employers and employees who seek to move across borders.

**Energy abundance & Strategic Infrastructure**

8. **Invest in reliable and affordable energy and in strategic infrastructure** that can support manufacturing, including in coal and gas fired power.

The main barrier to Australian manufacturing strength over the past decade has been Australia’s high energy costs. Fifteen years ago, Australia had some of the most affordable energy in the world, but today it has some of the highest electricity prices for business. If we cannot turn this around there will be little hope of increasing investment in Australian manufacturing.

The rise of China’s cost advantage in steel manufacturing is a relevant comparison. In 2005 China was a net importer of steel and in that same year they designated the steel industry as a pillar industry for their economy. By 2006 China became the largest steel exporter by volume and remains so today. Many assume low-cost labour contributed to China’s price advantage, but research by the Alliance for American Manufacturing reveals energy subsidies of almost $30 billion to energy providers, who passed on lower energy prices to all industries, aided the exponential growth of China’s energy
intensive steel industry.\textsuperscript{10} China’s example demonstrates the value of low-cost power to growing strategic industries, like manufacturing.

The way to get power prices down is simple. We need more supply of affordable and reliable power. Intermittent renewable power is not the answer to restore Australia’s manufacturing strength. As a recent Australian Energy Market Operator reported, Australia will need 6 to 19 GW of reliable power to back up renewables over the next 20 years. That is in effect around 4 to 12 coal fired power stations.\textsuperscript{11}

Australia needs to build modern coal fired power stations to help manufacturing industries. That is why the Nationals Party backs the delivery of a coal fired power station at Collinsville in North Queensland. But more will need to be built.

Given that the NSW Government has recently announced plans to shut 8520 megawatts of coal fired power (representing 70 per cent of the electricity of NSW), the Government should also support a new coal fired power station in the Hunter Valley. This would use the world’s best and cleanest thermal coal. It would be better for the environment for more Australian coal to be used to manufacture goods in Australia, instead of Australians importing manufactured goods from countries that use lower quality coals.

Australian gas is unlikely to encourage a manufacturing renaissance in eastern Australia on its own. Australia’s known gas resources in our east are too costly to make manufacturing competitive. Gas extraction costs are around three to four times those of coal in eastern Australia.

There are plentiful gas resources in our north and west that could support Australian manufacturing jobs. The key difference there is the co-location of oil helps lower the average cost of gas extraction. There is no oil in the coal seams of Australia’s east. We should seek to expand oil and gas production in the Beetaloo Basin in the Northern Territory and in Western Australia to support manufacturing industries there.

Manufacturers also need high quality infrastructure to access supply chains, to obtain materials required for production and to move manufactured goods to market. According to Infrastructure Australia’s 2019 Audit, Australia’s cities “too often act as bottlenecks in our national supply chains, limiting access to key markets for exporters and increasing costs for consumers.”\textsuperscript{12} In addition the 2019 Audit highlighted that regional Australia, particularly in agriculture, suffers from infrastructure constraints such as poorly maintained local infrastructure and limited capacity.

\textsuperscript{11} AEMO 2020, 2020 Integrated System Plan, July, p. 12.
\textsuperscript{12} Infrastructure Australia, Australian Infrastructure Audit 2019, p25, 2019
Overall, the Audit found that “planning is ‘siloed’ and poorly integrated, funding options are underdeveloped, projects face procurement issues and network maintenance is often an afterthought.”\textsuperscript{13}

Manufacturers and other businesses increasingly rely on high quality telecommunications and digital infrastructure to conduct business – be it connecting with customers and supply chains or accessing real-time data on production, logistics and monitoring. Without access to the best digital infrastructure, rural and regional manufacturers will be left behind. As the 2019 Audit highlighted “the specific needs of rural and remote users are often overlooked in upgrades to national telecommunications infrastructure.”\textsuperscript{14} For regional Australia, poor mobile reception, low-capacity, unreliable and slow broadband remain the biggest telecommunication constraints. Further investment will be required in regional centres to improve connectivity not only for manufacturers, but for supporting businesses, workforce, and their families.

We endorse a ‘strategic regionalisation’ approach through partnerships with our state, territory and local government counterparts to increase funding for strategic infrastructure to ensure regional and rural manufacturing businesses benefit from improved connectivity. For example, the Government’s Mobile Black Spot Program could be matched between governments to ensure coverage in areas not commercially viable but essential to a freight network committed to servicing regional manufacturing.

9. **Fund exploration to find a new oil province** in Australia to replace the Bass Strait.

Attracting investment in oil and gas development will be difficult in coming years given the lower oil price as a result of the coronavirus pandemic. But such investment is critical for our nation’s security and manufacturing industries.

Since the 1960s Australia has been relatively self-sufficient in the production of raw petroleum thanks to the reserves of the Bass Strait and North West Shelf. However, over the past 20 years the oil reserves of the Bass Strait have depleted and even those of the younger North West Shelf are starting to decline.

This has meant that Australia’s self-sufficiency in raw petroleum has rapidly declined. In 2000, Australia produced enough raw petroleum to supply 95 per cent of domestic demand. By 2018, this figure had dropped to 49 per cent.\textsuperscript{15} The world has become more insecure over that period and so it should be a national imperative to find new sources of oil supplies.

\textsuperscript{13} Infrastructure Australia, *Australian Infrastructure Audit 2019*, p210, 2019
\textsuperscript{14} Infrastructure Australia, *Australian Infrastructure Audit 2019*, p558, 2019
\textsuperscript{15} Department of the Environment and Energy 2018, *Australian Energy Statistics*, Table G, August.
Australia is not short of potential of oil reserves. Geoscience Australia estimates that Australia has almost 100 billion barrels of potentially recoverable oil resources.\textsuperscript{16} Australia uses just over 1 million barrels of oil a day, so this oil represents over 250 years of supply.

However, developing and proving these oil reserves to a commercial standard can take years or decades and is a highly risky commercial activity. The Australian Government has already funded some early exploration in the Canning Basin through the Exploring for the Future program, but we should do more to enhance opportunities.

The Australian Government should increase the funding of the Exploring for the Future program by $250 million to fund exploration specifically for oil reserves both onshore and offshore. This could help fund either 6 offshore exploration wells or 50 onshore wells. This investment would help bring forward investment in our oil opportunities to help restore Australia’s energy self-sufficiency.

\textsuperscript{16} Geoscience Australia 2020, \textit{Australian Resources Energy Assessment}, Table 3.