

# How to forge a Future Made in Australia

Tony Wood and Alison Reeve

## Overview

Australia can be a 21st Century industrial success. Climate change provides the imperative; our vast renewable energy and mineral resources provide the opportunity.

Billions of dollars and clear and consistent policy are needed, and continual interventions (by the current or a future government) will be toxic to investor confidence.

Done well, and with bipartisan commitment, the Future Made in Australia Bill could provide the policy framework to realise the opportunities in a cooperative, strategic partnership between government and industry, while avoiding valid concerns about traditional industry policy.

Unfortunately, the draft Bill is not up to this task.

Realising the government's vision of a sustainable manufacturing renaissance based on renewable energy, hydrogen, and critical minerals requires three elements:

- A disciplined approach to identifying and supporting those industries that will build on Australia's comparative advantages in a low-emissions world. Dilution of effort will be fatal.
- Differentiating where overcoming supply chain challenges genuinely requires local manufacturing, and where other means are more economic.

- A high level of cooperation between government and industry and a strong governance structure.

The government already has numerous policy and funding tools and mechanisms that could form the building blocks of new industry policy, many of which it inherited from previous governments. They include the Safeguard Mechanism, the National Reconstruction Fund, ARENA, the Clean Energy Finance Corporation, the Northern Australia Infrastructure Facility, Hydrogen Headstart, Export Finance Australia, and numerous measures announced in the May 2024 budget.

The government needs to clarify how these measures work together, how they fit with the Future Made in Australia framework, and where and how the Future Made in Australia National Interest Framework applies.

The National Interest Framework is intended as a guide to assessing where and how the government intends to apply industry policy, including public funding to unlock private investment. Formalising the National Interest Framework and creating a process for sector assessments is welcome transparency.

But, without specifying the role these assessments will play and how they will factor into decision-making, there is a risk of falling into three classic industry policy traps: overreaching for competitive advantage, picking losers, and short-term policy thinking. The Bill needs to be more explicit about how the National Interest Framework will inform and guide future policy and funding decisions so these traps can be avoided.

## Recommendations

### Broad principles

- Configure the Future Made in Australia (FMIA) framework as the basis and reference for Australia's 21st Century industry policy.
- Ensure a robust governance structure that includes and links with current and future funds, programs, and initiatives relevant to the intent of FMIA.
- Make explicit how and where the Framework will guide future policy and funding decisions.
- The economic security and resilience stream of the National Interest Framework is open to considerable flexibility in its interpretation for assessing proposals for government support. More rigorous descriptions of the boundaries of this stream should be developed to avoid unnecessary or wasted support.
- Formalised industry policy with clear criteria for national funding in the national interest is a new venture in Australia. The FMIA Bill should include a requirement for a periodic, independent review (for example, by the Productivity Commission), with the first review taking place five years after Royal Assent.
- The Government should consider whether items in the Community Benefit principles relating to tax, industrial relations, discrimination, and skills development could be better achieved via reforms to those areas of law and policy.

### Matters relating to ARENA

- Request the Auditor-General to undertake a performance audit of ARENA, as a 'health check' on ARENA's readiness to take on

increased risk, bigger grants, and more commercially-oriented finance .

### Recommended amendments to the Bill

Relevant page numbers in this submissions are included after each recommendation.

- Section 7(3): make the case for industry policy clearer. (*p. 10*)
- Section 7(4): include more rigorous descriptions of the circumstances that support investment for reasons of economic security and resilience. (*pp. 10-11*)
- Section 8(1): assess the role of current policies and programs and existing facilities and enterprises in achieving the desired outcomes of Future Made in Australia; and the potential for non-fiscal approaches to be used. (*pp. 11-12*)
- Section 8(6): require the Secretary to invite input to sector assessments from independent agencies. (*pp. 12-13*)
- Section 8 (new subsection): allow sectors to be reassessed periodically. (*p. 13*)
- Section 14: publish an annual breakdown of the amount of funding allocated to each Future Made In Australia initiative and the amount expended to date.

## 1 Introduction

This submission is by Tony Wood and Alison Reeve of Grattan Institute, an independent think tank focused on Australian domestic public policy. Grattan aims to improve policy by engaging with decision-makers and the broader community.

On 4 June 2024, the Senate referred the Future Made in Australia Bill 2024 [Provisions] and the Future Made in Australia (Omnibus Amendments No. 1) Bill 2024 [Provisions] to the Senate Economics Legislation Committee for inquiry and report by 5 September 2024.

Future Made in Australia is an initiative intended to provide a rigorous approach for governments to support investment in manufacturing opportunities that arise from moving to a net-zero economy.

The Future Made in Australia (FMIA) Bill and the associated National Interest Framework are intended to guide the identification and potential government funding of priority industries aligned with these opportunities.

Grattan reports over several years have made the case for industry policy as a contributor to delivering a net-zero economy. This submission to the inquiry emphasises the importance of industry policy to realising these opportunities, with a major emphasis on rigorous application of the National Interest Framework. It also responds to some policy matters raised in the legislation.

## 2 Australia needs a 21st Century industry policy

Australia's industrial sector faces transformative change to meet global and domestic emissions reduction targets. A 21st Century industry policy to deal with a 21st Century problem can underpin Australia's successful transformation to a world-leading green energy superpower.

Governments use industry policy to alter the structure of an economy by encouraging resources to move into sectors that are perceived as desirable for future development.<sup>1</sup>

In the past, industry policy has been used to make markets more efficient, for example by correcting under-investment in research and development. Industry policy has also been used to direct resources to strategically important sectors to promote economic growth. This was the case with the IT transformation in the United States, where the government invested in the internet, GPS, and touchscreen technologies.<sup>2</sup>

To meet long-term emissions reduction targets, Australia's industrial sector must be transformed in fewer than three decades. A market mechanism – a carbon price – is the most efficient way to drive emissions lower. For example, the Safeguard Mechanism places a carbon price on the largest industrial emitters. But this price is too low to bring about the transformation at the scale and pace required. Hence the need for industry policy.

Done well, a new industry policy can firmly position Australia to capitalise on trade opportunities and boost our economy. Creating new employment and economic opportunities will be important to sustain support among the Australian people for the transition to net zero. But

there are also pitfalls in industry policy, that governments should be aware of and do their best to avoid.

### 2.1 The case for industry policy

Industry policy can be controversial, so it is worth making the case for why such a policy is needed in Australia today. Three challenges underpin the case.

First, markets do not generally provide adequate incentives for research and development of new technologies, because knowledge is often intangible, risky, and difficult to appropriate. Low-emissions technologies are particularly complex and uncertain.

Second, many of the technologies that might produce large emissions reductions are expensive and high-risk. Early investors face high costs, low returns, and the risk of competitors free-riding on their initiative. Investors require a reliable, long-term carbon price to underpin their investments.<sup>3</sup> Yet a carbon price is inherently uncertain because it depends on the decisions of governments. For both these reasons, investment in low-emissions technologies is critically inadequate.

And third, there is a time imperative. Market forces are not good at managing structural transformations at high speed when the future is deeply uncertain. Moreover, the long-lived nature of industrial assets means that industry is particularly poorly suited to fast changes.

Australia needs a 21st Century industry policy to address these challenges. A new industry policy can firmly position Australia to capitalise on trade opportunities and boost our economy. Creating new

---

1. Aiginger and Rodrik (2019).

2. Mazzucato (2019).

---

3. Wood and Mullerworth (2012).

employment and economic opportunities will be important to sustain support among the Australian people for the transition to net zero.

## 2.2 The pitfalls of industry policy

Three potential traps await governments that move into industry policy: over-reaching on competitive advantage, picking losers, and short-term policy.

### 2.2.1 Overstating competitive advantage

Australia's advantage lies in its rich renewable resources in proximity to rich mineral resources, demand for which is expected to grow. However, not all minerals present equal opportunities, and not every end use is a chance to manufacture.

Australia could capture more value from growing demand for minerals by moving up the value chain from mining to processing to metallurgy (turning ores into metals) to product manufacturing. But moving up the value chain must not only be economic, it must take advantage of low- or zero-emissions energy.

An abundance of raw materials does not necessarily translate into an advantage as a manufacturer. Our analysis of battery supply chains shows Australia's advantages in energy and materials are maintained when turning ores to metals and metals to active materials, but shrink when turning active materials to cells. In the case of energy, this is because energy is a smaller percentage of overall cost; for materials it is because one quarter of the material requirements at this stage (representing 20 per cent of input cost) would need to be imported.<sup>4</sup>

Moving beyond cell manufacture to battery assembly would be even less advantageous for Australia because at that stage, labour costs

would make up a greater percentage of costs or the process would need to be highly automated, meaning the number of jobs included would be low.

Before governments jump straight to subsidising manufacturing of complex products that use Australian resources, they should make a clear-eyed and rigorous assessment of other costs, such as tax, logistics, labour, and imported materials, compared to competitor countries, and whether it is reasonable to assume higher Australian costs can be outweighed by cheaper energy and access to component materials produced here.

### 2.2.2 Picking losers

One criticism of industry policy is that it involves governments 'picking winners'. Governments don't have unlimited resources, and targeted policies necessarily means that not everyone gets assistance.

More important than not 'picking winners' is ensuring that the government is not propping up 'losers': industries that aren't economic and do not have a chance of becoming so.

There are three traps for governments to avoid: threats of job losses that coincide with a region or an election (Box 1 on the following page); claims that a 'pivot to green' will be possible in just a few more years; and claims that a facility or industry contributes to national security.

Governments need to be much better informed about which facilities have a future and which don't, and clear-eyed about whether facilities in distress are worth saving. As well, governments should apply stricter funding criteria, to ensure funding reaches the industrial facilities with the most potential to contribute to a resilient net-zero economy. In particular, governments should not assist companies that aren't prepared to make the same commitment that they have: net-zero

---

4. Wood et al (2022, pp. 38–39).

emissions by 2050 or earlier, interim targets, with capital to back these up.

Some companies may approach governments seeking support to prevent a facility closing because the facility could, with changes in technology, pivot to producing green commodities. Some of these opportunities may be genuine, others may be rent-seeking.

Well before facilities approach closure dates, governments should also arm themselves with comprehensive analysis on the technical options for pivoting to green commodities. They should make sure they understand the production scale required for an Australian facility to be internationally competitive. That way, a decision to support continued operation can credibly be conditional on reorienting towards cleaner production that is sustainable in the long term without subsidies.

Investment in critical minerals has been justified on national security grounds, amid concerns that China's dominance of parts of the supply chain endangers Australia's access to materials and products.<sup>5</sup>

Some of these concerns may be justified. Where governments should be cautious is in jumping to the conclusion that the best way to mitigate supply chain risk is to manufacture something ourselves. Diversifying supply, stockpiling, signing agreements with friendly allies to allow access to reserves, or making an effort to switch to products, practices, or technologies that are less vulnerable to supply chain disruptions should also be explored.<sup>6</sup>

Otherwise, Australia may find itself propping up uneconomic industries for no material increase in security, just as happened for car manufacturing (Box 2 on the next page).

### Box 1: The regional trap

Australian governments have a sorry track record of propping up uneconomic facilities in regional areas, and justifying this on employment grounds.

For example, the owners of the Mount Isa copper smelter in western Queensland threatened to close it in 2011, in 2016, and again in 2020, co-incidentally timed with the Queensland election cycle.<sup>a</sup>

Each time the Queensland government rode to the rescue, with \$85 million in 2012, \$15 million in 2016, and a multi-million-dollar undisclosed amount in 2020. The Queensland government has also subsidised upgrades to the Mount Isa-to-Townsville railway, to facilitate exports, and the development of more electricity infrastructure. Over the period, global copper prices were on average 55 per cent higher than in the preceding 10 years.<sup>b</sup>

A similar story can be told about the Portland aluminium smelter in south-western Victoria. A 2017 rescue package was estimated to equate to \$200,000 per worker per year,<sup>c</sup> and a more recent rescue package to between \$24,000 and \$60,000 per worker per year.<sup>d</sup>

a. Walker (2021), Coorey and Ludlow (2017), and Ignacio (2020).

b. Based on IMF quarterly commodity prices in \$US per metric tonne. Source: Federal Reserve Bank of St Louis (2021).

c. Millar (2021).

d. Leitch (2017), McCrann (2021).

---

5. Coyne (2022).

6. Hellyer (2020).

### 2.2.3 Short-term policy

The decision to renew, refurbish, or retire an industrial facility begins well before the end of its life. For example, BlueScope's blast furnace in Port Kembla in NSW will reach the end of its design life sometime between 2026 and 2030. But the process to decide its future started in 2021.<sup>7</sup>

If governments want to transform Australia's industrial base and make it a green superpower, then stable policy settings are essential. Stability does not mean unchanged policy, rather it means consistency in the rules, with future governments differentiating themselves only on the pace of change.

The policies that transformed the Australian electricity market show the power of this approach: the Renewable Energy Target has supported demand for 20 years, and the major funding agencies (ARENA and the CEFC) had their funding set out in legislation for 10 years.

Similarly, where government is sharing risk with industry through financial assistance, such assistance must be available over the same timeframes as decisions are made. This means moving away from three-year funding cycles linked to the budget forward estimates, and towards legislated funding delivered through independent statutory agencies, similar to the CEFC, the NAIF, and ARENA. This allows such organisations to develop and maintain deep expertise in the sector and better tailor assistance to meet business needs. It avoids perceptions of pork-barrelling, and provides assurance of long-term commitment to the sector.

This approach does not constrain future governments – they can repeal or change legislation should they wish to change direction. But, it does place a higher bar in front of any decision to do so.

---

7. BlueScope (2021).

#### Box 2: The national security trap

Car manufacturing in Australia had its roots in the idea that local manufacturing capability would be critical to national defence should Australia find itself in another war.<sup>a</sup>

Despite cars costing up to five times as much to make in Australia as elsewhere, this Cold War concern persisted as a reason to continue subsidising the industry right until its end.

In 2008, the Industry Minister justified assistance to Ford on the grounds that 'you can't make a jet fighter without having a strong car industry'.<sup>b</sup> And in 2013 and 2015, industry submissions to Senate inquiries were still playing up links to defence capability.<sup>c</sup>

Meanwhile, successive governments continued to procure most of their defence needs abroad, and where local manufacturing was attempted, projects ran over time, over budget, and delivered poor-quality products.<sup>d</sup>

- a. Phillips (2013).
- b. Carr (2008).
- c. FCAI (2015).
- d. The Collins Class submarine is one example.

### 2.3 Our reports on industry policy

Grattan Institute has advocated since 2020 for a better approach to industry policy. Four Grattan Institute reports have included detailed analysis of the challenges and opportunities involved. They identified Australia's opportunity in green steel and green aluminium production, the broader opportunity that arises with decarbonisation of industry, and the case for a 21st Century industry policy to underpin Australia's transformation to a net-zero economy. These reports can be viewed in full on our website.

- The next industrial revolution: Transforming Australia to flourish in a net-zero world (2022)<sup>8</sup>
- Towards net zero: Practical policies to reduce industrial emissions (2021)<sup>9</sup>
- Start with steel: A practical plan to support carbon workers and cut emissions (2020)<sup>10</sup>
- Hydrogen: Hype, hope, or hard work? (2023)<sup>11</sup>

A key conclusion from these reports is that Australia needs an over-arching policy framework with consistent, targeted policies linked to clear goals, developed and executed in sustained collaboration with industry. Substantial progress is being made towards this framework, including the Future Made in Australia initiative and associated Innovation Fund, the Net Zero Plan that includes focus on the industry sector, the Hydrogen Headstart program, and the revamped Safeguard Mechanism.

---

8. Wood et al (2022).

9. Wood et al (2021).

10. Wood et al (2020).

11. Wood et al (2023).

### 3 How to improve the Future Made In Australia framework

The introduction of the FMIA Bill and National Interest Framework is a welcome formalising of a government commitment to a cooperative approach to 21st Century industry policy that is consistent with Grattan Institute's recommendations over several years.

Several elements that are important to this initiative:

- The introduction of the National Interest Framework in the most recent federal budget and its reference in the FMIA Bill.
- The requirement for clear and transparent assessments of proposals for government funding against the National Interest Framework.
- The obligations that prevent the minister from influencing proposal assessments and that require the minister to table assessments against the framework in parliament.

#### 3.1 The National Interest Framework

The National Interest Framework, released at the same time as the May 2024 Budget, establishes two activity streams for Future Made In Australia, with different criteria against which assessments for funding support would be made.

The **net-zero transformation stream** would allocate funding only to sectors where:

- a sector could have a sustained comparative advantage in a net-zero global economy; and
- public investment is likely to be needed for the sector to make a significant contribution to emissions reduction at an efficient cost.

The **economic resilience and security stream**, which allocates funding where:

- some level of domestic capability in the sector is a necessary or an efficient way to deliver economic resilience and security; and
- the private sector will not deliver the necessary investment in the sector in the absence of government support.

#### Improving the net-zero transformation stream

The criteria for this stream should more clearly articulate the reasons that industry policy is needed. Section 7(3) should be amended to add:

- (c) market incentives are absent or inadequate.
- (d) markets cannot manage the transformation required in the time available.

#### Improving the economic resilience and security stream

Economic resilience and security are broad terms, which can capture a range of meanings. The Bill does not define these terms formally, nor does it incorporate the more precise description provided in the National Interest Framework into what the stream is intended to achieve.

The case for support based on economic resilience and security is much less sound in principle than that based on net-zero transformation, and there is a significant risk that the current bar is set far too low.

Firstly, there may be cases such as wartime, international insecurity, or pandemics where supply chains are disrupted, or shortages of

certain products emerge. But these cases do not necessarily lead to government-funded onshore manufacturing. Other approaches that could deliver the same resilience. For example, shortages of medical equipment during pandemics can be avoided by stockpiling.

Secondly, if the case rests on efficiency of delivery, then the case for government support versus private investment must be made. Again, there are other ways to improve private-sector delivery of items of national importance. An example is the National Minimum Stockholder Requirement for liquid fuels, which places a legal obligation on all major fuel importers to hold reserves of petrol, diesel, and jet fuel as a buffer against international disruption of fuel supply chains.<sup>12</sup>

The Bill should include more rigorous descriptions of the circumstances that would substantiate an argument for economic resilience and security AND where the private sector would not invest.

### 3.2 Sector assessments

The Bill establishes ‘sector assessments’, intended to assess the extent to which a sector aligns with the National Interest Framework and opportunities to address barriers to private investment, in the national interest. The sector assessments, based on national interest, should be used to help governments decide how best to leverage private investment in Australia’s national interests, and help inform rigorous government decision making in doing so.<sup>13</sup>

The draft Bill is unclear on the role of assessments in decision making. It needs to be more explicit about how the National Interest Framework will inform and guide future policy and funding decisions.

This commitment to improving the evidence base for policy is welcome. But the process outlined in Bill rests on two assumptions, which we think should be challenged.

First, it does not consider the role of current policies. At the time of writing, there were 229 federal programs offering grants, subsidies, funding, loans, sponsorship, rebates, or tax benefits for environmental sustainability, equipment, manufacturing, exporting, or R&D.<sup>14</sup> Surely some of these initiatives currently or could play a part in achieving the aims of Future Made in Australia.

Second, it starts from the point that the sector needs ‘support’, which implies government spending. Outside of the funding programs noted above, there is a plethora of policies attempting to reorient the economy towards net zero, ranging from product standards to carbon limits to certification. Adding more on top is not always going to be the best solution; and adding spending on top of current policies may distort their outcomes or hobble their capacity to work properly. As well, policies that do not involve government spending could deliver similar outcomes.

Finally, the matters which the Secretary can consider do not provide scope to consider the role of existing versus new enterprises and facilities. As we noted in section 2.2.2 on page 6, one of the potential traps of industry policy is that it becomes an excuse to prop up failing facilities and businesses. To avoid this trap, the sector assessments need to set out the criteria for success and the extent to which existing facilities meet them. This might include things such as scale relative to global competitors, age of existing facilities, and cost structure.

#### Improving the sector assessment process

Section 8(1) should amended to add:

---

14. Grant and programs finder, [business.gov.au](https://business.gov.au), accessed 23 July 2024. Includes programs that are not currently taking applications.

---

12. DCCEEW (n.d.).

13. Chalmers (2024, p. 8).

- (f) the role of current policies and programs in achieving the above.
- (g) the potential for non-fiscal approaches to achieve the above.
- (h) the role of existing facilities and enterprises.

### 3.3 Decision-making

The Bill enables assessments of economic sectors for alignment with the National Interest Framework and for potential public investment. It will be up to the Treasurer to decide the need for an assessment and to direct the Secretary of the Treasury to conduct the assessment. This mechanism seems to give considerable discretion to the minister in deciding on the need for assessments. It would be better to allow Treasury to initiate a limited number of assessments itself, in addition to those requested by the minister.

And, while there is a prohibition on the minister influencing the outcomes of assessments, in practice this is likely to be a thin constraint. It would be preferable for the assessments to be done by an independent body, but we are loath to add to the duties of existing independent bodies such as the Productivity Commission, the ACCC, the Climate Change Authority, or CSIRO; and we recognise the budget implications of establishing new independent bodies. We also note that existing independent agencies will each bring their own prior assumptions and constraints to an assessment.

A compromise between fully independent assessments and Treasury assessments would be to leave the assessment task with Treasury, but require the Secretary to invite independent bodies to provide input, and leave it up to those bodies to determine the extent to which they engage. This should bring more rigour to the process, without establishing an extra bureaucracy.

There is nothing in the Bill that links the sector assessments to policy development. Once completed, a sector assessment is tabled in

parliament, and that is the end of it. A government could ignore the findings of a sector assessment and decide not to invest in a sector identified as meeting the National Interest Framework; conversely, a government could invest in a sector despite a sector assessment finding there is no value for money or national interest benefit from doing so.

We note the budget papers state that five nominated industries are ‘aligned’ with the the National Interest Framework and are identified as ‘priority industries’. It is unclear whether this means these industries were subject to a process similar to sector assessments – if they were not, it may be a sign that the framework is already failing to support an evidence-based approach.

Finally, a characteristic of the transition to net zero is that technology and circumstances change very quickly. A sector assessment could become out of date easily, and any support measures that rely on it may no longer be appropriate. There should be a mechanism in the Bill to keep sector assessments up to date.

#### Improving decision-making

Add to section 8(6): The Secretary must invite the following agencies to provide input to the sector assessment:

- The Productivity Commission
- CSIRO
- the Australian Competition and Consumer Commission
- Infrastructure Australia
- the Climate Change Authority
- the Net Zero Economy Authority

This list may not be complete, and the Senate Committee may wish to consider adding other agencies to the list. For example, the Office of National Intelligence, while not independent, could provide useful input on matters of national security.

The Bill should also outline how sector assessments will be used to inform and guide policy and spending.

To ensure sector assessments remain relevant, section 8 should have an additional part that requires:

- Sector assessments to include a proposed date for reassessment.
- The Secretary to publish a list each year of the reassessment dates, and seek public input on whether sectors should be reassessed.
- Periodic reassessments.

### 3.4 Community benefit principles

The Bill sets out Community Benefits Principles relating to working conditions, skills, community engagement, domestic industrial capability and tax arrangements. It requires funding recipients to complete a Future Made in Australia Plan, outlining how they will meet these principles. Further detail is left to the Rules once the Bill has passed.

By contrast to sector assessments, the Bill requires mandatory consideration of the Community Benefits Principles in the decision to provide support, unless the Rules provide otherwise in the circumstances.

The Community Benefits Principles may be relevant considerations around a proposal in terms of maintaining a floor for recipients around Australia's laws, such as workplace laws and tax laws, and ensuring

that recipients aren't also seeking carve-outs from general laws and regulations that would apply to them.

However, if the intent is to lift wages and conditions in a particular sector, then the funding process is not the vehicle to do this.

It is uneven to have mandatory consideration of these principles while the sector assessments – which address critical questions around public value for money and the wisdom of industry support to a particular sector – do not have this status.

At present, there is uncertainty as to what the Rules will provide. To some extent, it is appropriate for Rules to deal with details around Future Made in Australia plans and related processes.

We recommend against the formal incorporation of these principles in the assessment process for funding support. If the government is committed to using the principles, then the Bill should specify that the Plans will form merit criteria rather than eligibility criteria in assessing individual projects for Future Made in Australia support.

### 3.5 Where does Future Made In Australia begin and end?

The current government has announced a plethora of initiatives and funding mechanisms related to supporting Australia's transition to a net-zero economy. It has become complex to navigate through the full range of these commitments. The FMIA initiative is the latest and it also can provide the framework that connects all of them.

For parliamentarians trying to assess new initiatives, it can be difficult to see how these interact with, add to, detract from, or duplicate what is already there. To assist, the Bill should require the annual report (section 14) to include an annual breakdown of Future Made in Australia initiatives, the amount of funding allocated to each one, and the amount of funding expended.

## 4 Omnibus amendments bill

ARENA has played a valuable role in the allocation and management of grant funding to development of early-stage renewable technologies. The Act and Omnibus Bill expands this role both quantitatively and qualitatively. The changes to the governance arrangements are appropriate and it will be important to make sure that these changes reflect in practice the magnitude of the role expansion. The scope of work and the increase in scale of commercial matters and risks are increasing significantly.

We recommend that the Joint Committee of Public Accounts and Audit request the Auditor-General to carry out a performance audit of ARENA, as a 'health check' on its readiness to take on increased risk, bigger grants, and more commercially-oriented finance.

## Bibliography

- Aiginger, K. and Rodrik, D. (2019). "Rebirth of Industrial Policy and an Agenda for the Twenty-First Century". *Journal of Industry, Competition and Trade* Volume 20. [https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/rebirth\\_of\\_industrial\\_policy\\_and\\_an\\_agenda\\_for\\_the\\_21st\\_century.pdf](https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/rebirth_of_industrial_policy_and_an_agenda_for_the_21st_century.pdf).
- BlueScope (2021). *Media release: Port Kembla Steelworks Blast Furnace Reline*. <https://www.bluescope.com/bluescope-news/2021/02/port-kembla-steelworks-blast-furnace-reline/>.
- Carr, S. K. (2008). *Kim Carr: Interview with ABC Melbourne Regarding Ford Australia*. <https://webarchive.nla.gov.au/awa/20090912060505/http://minister.innovation.gov.au/Carr/Pages/INTERVIEWWITHABCREGARDINGGFORDAUSTRALIA.aspx>.
- Chalmers, J. (2024). *Future Made in Australia Bill, Future Made in Australia (omnibus amendments no. 1) Bill: Explanatory memorandum*. Parliament of Australia. [https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=ld%3A%22legislation%2Fems%2F7219\\_ems\\_62724c50-eb45-411a-9383-11e0448f331f%22](https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=ld%3A%22legislation%2Fems%2F7219_ems_62724c50-eb45-411a-9383-11e0448f331f%22).
- Coorey, P. and Ludlow, M. (2017). "Now Glencore threatens to leave, pressure on Qld and Turnbull governments". *Australian Financial Review*. <https://www.afr.com/politics/now-glencore-threatens-to-leave-pressure-on-qld-and-turnbull-governments-20170529-gwfs34>.
- Coyne, J. (2022). "Government commits \$240 million to critical minerals projects in mission to end Australia's reliance on China". *Australian Strategic Policy Institute*. <https://www.aspi.org.au/news/government-commits-240-million-critical-minerals-projects-mission-end-australias-reliance>.
- DCCEEW (n.d.). *Minimum Stockholding Obligation*. <https://www.dcceew.gov.au/energy/security/australias-fuel-security/minimum-stockholding-obligation>.
- FCAI (2015). *FCAI interim submission to the Senate Economic Legislation Committee Inquiry into the Future of Australia's Automotive Industry*. Federal Chamber of Automotive Industries. <https://www.fcai.com.au/library/publication/FCAI%5C%20submission%5C%20-%5C%20Senate%5C%20Automotive%5C%20industry%5C%20Inquiry.PDF>.
- Federal Reserve Bank of St Louis (2021). *Global price of Copper*. <https://fred.stlouisfed.org/series/PCOPPUSDQ>.
- Hellyer, M. (2020). "Supply chain security: lessons from Australia's defence industry". *Australian Strategic Policy Institute*. <https://www.aspistrategist.org.au/supply-chain-security-lessons-from-australias-defence-industry/>.
- Ignacio, R. J. (2020). "Glencore's Mount Isa copper smelter faces closure; Implats FY'20 profit surges". *S&P Global Market Intelligence*. <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/glencore-s-mount-isa-copper-smelter-faces-closure-implats-fy-20-profit-surges-60213311>.
- Leitch, D. (2017). *Portland smelter rescue deal to cost Victoria \$1.1 billion over 4 years*. <https://reneweconomy.com.au/portland-smelter-rescue-deal-cost-victoria-1-1-billion-4-years-86101/>.
- Mazzucato, M. (2019). "Industrial policy and the climate challenge". *Prospect*. <https://prospect.org/greennewdeal/industrial-policy-and-the-climate-challenge/>.
- McCran, T. (2021). "Why Victoria's Portland aluminium smelter won't survive the decade". *The Herald Sun*. <https://www.heraldsun.com.au/business/why-victorias-portland-aluminium-smelter-wont-survive-the-decade/news-story/4921c364ca353da1e17a3ebaac06e7e6>.
- Millar, R. (2021). "What price the future of Alcoa's Portland smelter?" *The Age*. <https://www.theage.com.au/national/victoria/alcoa-insight-cover-shell-20170105-gtm63l.html>.
- Phillips, K. (2013). "Australia's auto industry: from military paranoia to dreams of modernity". *ABC Online*. <https://www.abc.net.au/radionational/programs/rearvision/australian-auto-industry-myths/4808616>.
- Walker, J. (2021). "Mount Isa is crying for help". *The Australian*. <https://www.theaustralian.com.au/inquirer/death-of-a-dream-the-mining-city-of-%5C%mount-isa-is-crying-out-for-help/news-story/83cb41573d86a65461da57a186cb3879>.

- Wood, T. and Mullerworth, D. (2012). *Building the bridge: a practical plan for a low-cost, low-emissions energy future*. 2012-06. Grattan Institute.  
<https://grattan.edu.au/report/building-the-bridge-a-practical-plan-for-a-low-cost-low-emissions-energy-future>.
- Wood et al (2020). Wood, T., Dundas, G. and Ha, J. *Start with steel: A practical plan to support carbon workers and cut emissions*. Grattan Institute.  
<https://grattan.edu.au/report/start-with-steel/>.
- Wood et al (2021). Wood, T., Reeve, A. and Ha, J. *Towards net zero: Practical policies to reduce industrial emissions*. 2021-10. Grattan Institute.  
<https://grattan.edu.au/report/towards-net-zero-practical-policies-to-reduce-industrial-emissions/>.
- Wood et al (2022). Wood, T., Reeve, A. and Suckling, E. *The next industrial revolution: Transforming Australia to flourish in a net-zero world: chart pack*. 2022-08. Grattan Institute. <https://grattan.edu.au/report/next-industrial-revolution>.
- Wood et al (2023). Wood, T., Reeve, A. and Yan, R. *Hydrogen: hype, hope, or hard work?* 2023-13. Grattan Institute.  
<https://grattan.edu.au/report/hydrogen-hype-hope-or-hard-work>.