

Addressing climate change can be the lynch pin of Australia's economic prosperity

Canberra, 14 February, 2024: In a landmark address to the National Press Club (NPC), former ACCC Chair Rod Sims, now Chair of [The Superpower Institute](#) (TSI), and leading economist and founder of TSI, Ross Garnaut, outline the path to restoring Australia's prosperity by using its opportunities in the post carbon world.

Following a decade of stagnation of output per person, real wages and living standards, the NPC address discusses how Australia's full participation in the world's move to achieve net zero global emissions is the only credible path to restoring productivity growth and rising living standards, and so promoting Australia's economic prosperity.

15 recommendations (see attachment) have been put forward covering three themes. The recommendations are a package of funded measures to ease cost of living pressures and establish competitiveness in large and growing zero-carbon export industries.

- **Establishing the right balance between the role of the state, and the role of competitive private markets.** Markets should be left free to allocate resources in all areas where competition is possible. That allows government to concentrate on the things government must do; efficient provision of public goods, and of natural monopoly services such as electricity transmission and hydrogen transport and storage. Also, the choice of projects within the Commonwealth's new Capacity Investment Scheme (CIS) should support investment without imposing official preferences on market choices.
- **Encouraging innovation to supply export markets.** Australia should not be responding to the Inflation Reduction Act (IRA) by funding the energy transition from budget deficits or being inward looking and protectionist. Australia's green exports can benefit from Europe's Carbon Border Adjustment Mechanism (CBAM). Access to premium markets requires Australia to have a green premium, and improved accounting for Australian emissions. Innovation can be supported by establishing a Superpower Innovation Incentive Scheme (SIIS) to support early investors in each of the new, green export industries.

- **Funding and securing a green premium** through finally taking into account externalities. Markets only work effectively if firms are required to pay the costs that their activities impose on others, and are rewarded for benefits that they confer on others. The absence of such a payment or reward is a market failure. The SIIS rewards the wider benefits of innovation. The market failure associated with carbon emissions can be corrected by a Carbon Solution Levy (CSL) at all fossil fuel extraction sites and import ports in Australia. The CSL provides the funds to support the building of the Superpower and other valuable activities without placing a strain on the budget. The CSL needs to be in place by 2031 at the latest. Introducing it earlier would unlock significant cost of living benefits to Australians.

Founder and Director of the Superpower Institute, Ross Garnaut said: “Success requires investing 5 percent or more of our national income in the zero-carbon industries for several decades. That sounds impossible.

“Impossible, until we recall that we invested as much in mining during the China resources boom 2002–12.

“We know that a general requirement for polluters to pay for the cost they impose on others is impossible in contemporary Australia.

“But not as impossible politically as accepting continued stagnation and decline in living standards.

“Not as impossible as passing on to our children and grandchildren lower standards of living than our own parents and grandparents left to us.

“Australia’s immediate future involves choices of which impossible things we choose to do.”

The proposed CSL would be paid on all emissions from fossil carbon wherever they occur in the world, at the rate of recent prices of carbon permits in the European Emissions Trading Scheme. The fee would be administratively simple, and only impose transaction costs on just over 100 businesses.

If applied earlier this funding could also unlock significant macroeconomic benefits and cost of living relief such as through providing \$300 per year for households and businesses as well as fully compensating for the cost effects of the CSL on electricity prices; among other benefits.

Rod Sims, Chair of the Superpower Institute said: “Securing Australia’s place in a decarbonised global economic order is a once in a century economic opportunity.

"If Australia seizes the opportunity offered by the world's transition to zero net emissions it can repeat the experience of the China resources boom, but the benefits can continue for decades.

"We know these 15 policy recommendations are bold. But so too were the reforms of removing tariffs and ending protectionism, and these reforms underpinned Australia's prosperity for a generation. We lost our forward economic momentum a decade ago. The Superpower Institute's work will show Australians how to get it back.

"Our products will not be able to compete internationally until we finally address the market failures in our economy. As Lord Stern has said, the absence of payments for damage that carbon emissions impose on others is the greatest market failure of all time.

"It is time to again debate this issue. By addressing these market failures we can comprehensively create the reforms needed to boost productivity, unleash innovation and bring cost of living pressures down to ensure we create a sustainable, competitive and prosperous economy."

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About The Superpower Institute

The Superpower Institute has been established to change the narrative on the economy and climate change in Australia. Rather than discussion of these issues occurring in isolation, TSI seeks to give climate change a central role in our economic debate, and to place climate policy in the context of the wider Australian economy. Philanthropically funded and as a not-for-profit entity, the Institute is undertaking the research to achieve this.

Australia is the world's largest exporter of gas and coal taken together. Many focus on the costs of losing what has been our large comparative advantage. Two key points are overlooked.

First, Australia has the world's best combinations of wind and solar energy resources, and it has enormous sources of biomass for a zero emissions chemical industry.

Second, we have abundant minerals which the world will increasingly need, and we have the largest or amongst the largest resources of the energy transition, or critical, minerals. Renewable energy and hydrogen are not easily exported, and are expensive to export, so it makes economic sense for industry to relocate to the lowest cost energy source; that is, by economic logic more of Australia's minerals should now be processed in Australia.

To give an example, Australia currently exports iron ore, metallurgical coal, and thermal coal and gas. It is easy and inexpensive to export these products. In the zero carbon world, however, iron ore will be reduced to iron metal using renewable energy and very likely hydrogen. Both inputs are difficult and expensive to export. In the zero carbon world the economics change; whereas previously it made economic sense for Australia to export iron ore, it now makes economic sense to export green iron metal.

Australia's advantages relative to the rest of the world are so significant that their large scale utilisation would materially improve the prospects of achieving the world's climate objectives. In addition to our just over 1% of world emissions now occurring in Australia, we could remove around another 6-9% of global emissions that other countries will find very difficult to abate by making, for example, green iron, green aluminium, green transport fuels, green urea and green silicon in Australia. By turning our iron ore into green metal Australia would reduce world emissions by around 3%; more than double the contribution to world emission reduction from decarbonising Australia.

Australia covers about 5% of the earth's land surface; supplying about 7-10% of the world's renewable energy is no stretch given our abundant solar, wind and land resources.

Australia can have more employment and higher incomes in the relatively short term, and be much richer in the longer term, by moving early and decisively in building and expanding the zero emissions Superpower export economy.

Indeed, if Australia seizes the opportunity it can repeat the experience of the China resources boom which peaked around 10 years ago. But this time the opportunity can be sustained, rather than boom and bust, and we can manage it better for broadly based development.

This logic has been clearly and strongly formulated by Ross Garnaut through a number of books on the "Superpower" opportunity.

[The Superpower Institute](https://www.superpowerinstitute.com/)

Recommendations for boosting Australia's prosperity by maximising our contribution to global emission reduction

National Press Club Address, Ross Garnaut AC, Rod Sims AO, 14 February 2024

"...reducing reliance on fossil fuels will ultimately depend on making them uncompetitive. A combination of carbon prices and well targeted subsidies for clean technologies can do so..." (The Economist, December 16, 2023, P11)

One: The five pillars that need to hold up the approach to realising the Superpower opportunity.

1. A strong budget for a competitive cost of capital and competitive real exchange rate to underpin Australia's international competitiveness, and a buffer against instability in a small, export-oriented economy.
2. Open trade for access to globally competitive inputs and access to international markets.
3. A stable policy regime on which businesses can rely for long-term decisions, including a business taxation regime that increases incentives for investment and innovation without reducing government revenue.
4. Use market exchange wherever competition can be effective; provide public goods efficiently in areas where competitive markets are impossible.
5. Ensure a skilled and flexible labour force, and an informed and supportive community.

Two: Recommendations to deliver the Superpower opportunity.

1. Ensure Australian products are compliant with tariff-free access to EU markets under Europe's Carbon Border Adjustment Mechanism (CBAM). This mechanism levels the playing field between products that contribute to global warming and those that do not, and so will be of enormous benefit to Australia's green exports, especially in the early stages. This requires a mechanism to replace the current Renewable Energy Target, which guarantees green energy additionality (Rec. 8 below).

2. Proper measurement of greenhouse gases is also required for Australia to take advantage of the CBAM opportunity. This is achieved by accepting the Climate Change Authority's December recommendations following their review of the *National Greenhouse and Energy Reporting (NGER) Scheme*. This is best done by implementing TSI's National Emissions Monitoring Roadmap to strengthen Australia's greenhouse gas monitoring network via, among other things, the establishment of twelve new greenhouse gas monitoring sites in Australia, increasing the number of sites from four to sixteen, and the establishment of a central calibration laboratory. Improved measurement is also part of what is required to bring integrity to the ACCU market.
3. Implement a Superpower Innovation Incentive Scheme (SIIS) to recognise the wider benefits from those investing early in green exports that can build Australia as a green Superpower. The wider benefits are the expensive learning by doing that comes from producing such products at scale by those who go early, with benefits to followers that the original investor cannot capture. The SIIS could work as follows:
 - Easy to administer criteria such that ARENA would determine that the project brings innovation, and that the carbon emissions saved are above a certain % of overall project costs, so that the SIIS only aims to support use of a large amount of renewable energy or biomass, and so only goes to projects in which Australia has a long term comparative advantage. Some projects that clearly meet this comparative advantage threshold would be, for example, green iron, green aluminium, green polysilicon, green transport fuels and green urea.
 - Grants of up to 50% of capital costs for at least the first one, two or three facilities, up to a cap, depending on how much learning and scale can be achieved.
4. Commit that the public sector should provide the hydrogen storage and transport, and the electricity transmission needed for the Superpower given that supply needs to be built ahead of demand, that all should be able to connect into these systems, and that rate of return regulation in private ownership often biases to higher costs for consumers. Many of the superpower industries will be initially located away from the current National Electricity Market, although there would be advantages in the long-term integration of some initially isolated networks.
5. The Commonwealth Treasurer request the Productivity Commission to review how current network revenue regulation can be best restructured for economic efficiency, to take full advantage of behind the meter energy, and to determine how the electricity transmission system should appropriately be planned, structured and expanded to provide timely support for the Superpower

industries. The scope of the Productivity Commission Report should also cover provision of hydrogen transportation and storage infrastructure.

6. Maintain the essential features of the electricity wholesale market that has worked well. That is, for example, do not move to a capacity market which will require excess generation which will be paid for by higher electricity prices for consumers. The wholesale market is providing strong incentives for investment in storage and peaking, more cost-effectively than international and Western Australian capacity markets.
7. The Government's recently announced Capacity Investment Scheme (CIS) is a massive change in arrangements. Over time, it will significantly accelerate investment, but with costs to the public revenue probably becoming very high in the 2030s unless there is some form of a green premium (as in Rec. 8 below). The Commonwealth CIS can sit beside State schemes, and should be kept simple.

Rather than conducting auctions, the Commonwealth could underwrite 80 percent of the costs incurred after financial close for any project that is in the right business (renewable energy or storage), and which meets simple and low hurdles on credibility.

The cash outlay of 80 percent of capital expenditure and 80 percent of all subsequent net cash flows would be carried forward at the Commonwealth's long bond rate at the time of investment plus a margin of, say, 200 basis points. Up to the point where the accumulated value of net cash flows is positive, the Commonwealth would make a payment equal to the shortfall in any year of net cash flow against an annual guaranteed revenue. The investor would specify the length of the underwriting contract from commencement of the contract up to a maximum of 15 or 20 years. The underwriting agreement specifies the capital expenditure to be underwritten, being no more than a cap per Mw or Mwh, based on average expectations. The agreed annual net revenue will be the equal annual amount of net cash flow that generates a zero value for net cash flows accumulated at the Commonwealth bond rate plus 200 basis points. After the accumulated value of net cash flow becomes positive, no more payments are due, and the project pays, say, 40 percent of net cash flow to the Commonwealth for the remainder of the underwriting period. The 80% is enough to secure debt, but leaving equity risk with project proponents.

It is good that the costs of the CIS are borne by taxpayers and not energy users, as this provides transparency and accountability, and the objectives of the CIS are of wider benefit.

8. Introduce a Carbon Solutions Levy (CSL) at all fossil fuel extraction sites in Australia (around 105 sites), and on all fossil fuel imports to Australia, to meet the many needs already described; fund the SIIS (Rec. 3), transmission investment (Rec. 4), and the CIS liability (Rec 7), and meet the needs of the EC's CBAM (rec. 1) and the need for a green premium under the CIS (Rec. 7).

We urge the CSL's introduction by 2030–31 as this is necessary to provide the green premium that will be required by then to underpin the CIS and to ensure entry into the EU's CBAM, and to fund the CIS liabilities, the SIIS and infrastructure investments, which by then in all cases will be significant. It would work as follows:

- Impose the CSL on all emissions from fossil carbon wherever they occur in the world, at the level of the EU's carbon price (five year inflation-adjusted average, currently around \$90 per tonne of emissions).
- To avoid a double imposition, sales to any country with arrangements that generate a comparable green premium from which Australian zero-carbon goods can benefit would receive a rebate for those sales. The rebate would apply now to members of the EU, the UK and other countries of Europe. It may apply to the US if the joint arrangement with the EU that is currently under discussions is executed. We hope that by 2030, our major trading partners in Northeast Asia would qualify for exemption.
- The well over \$100bn pa proceeds in year 1, which then decline slowly, should be applied first to fund the significant CIS liability, the SIIS and the required Transmission and hydrogen transport and storage. There would remain more than adequate funding to more than fully compensate for any effect on electricity or fuel prices, and to facilitate any restructure of road user charging. An amount of the CSL proceeds should be kept for budget repair or funding structural reform, such as tax reform, with long term benefits for economic growth and the revenue as Australia must maintain its key advantage of a low cost of capital.
- The CSL could be integrated into markets for ACCUs and any RET certificates left over from earlier years at an appropriate exchange rate; companies could purchase and surrender these as an alternative to paying the levy.

Immediate early introduction of a CSL will be ruled out by the main political parties. Subject to how discussion goes, however, an alternative is to phase in the CSL earlier at half the EC's carbon price, or \$45 per carbon dioxide-equivalent tonne emitted, until 2030–31 when the price would increase to match the EC's carbon price (\$90). In addition to meeting the needs mentioned above, early introduction could also provide macroeconomic benefits and cost of living relief as follows:

- Provide additional energy price relief of, say, \$300 for households with average household usage (on top of fully compensating for the effect of the CSL on electricity prices) to households and businesses to provide significant cost of living relief. Do this as an immediate down payment on

the significant falls in electricity prices that will occur over coming years given the growth in renewable energy under the CIS, and measures to reduce network costs and increased competition in retail power supply.

- Consistent with the CIS, bring the current costs of the Renewable Energy Target on budget which would lower household bills by around a further \$140.
 - Remove all petrol and diesel excise which would have a significant impact on prices to road users. That is, reduce costs of diesel and petrol to road users by over 30 cents per litre. Consideration could be given to compensating off-road users over a time sufficiently long to allow investment in alternative technologies. As suggested by the Henry Tax Review, the Commonwealth and the States should over time develop a road user charging system to replace the declining proceeds from the CSL, as the greater use of EVs is and was always going to erode the excise base. There is no urgency on the introduction of a road user charge, as the rise in electric vehicle use will be gradual and spread over many years.
 - The reductions in electricity prices of \$300 and around a further \$140, as well as the significant reductions in petrol and diesel prices, would reduce the CPI by over 1.5% directly and indirectly, on a conservative estimate, which will also have implications for RBA interest rate settings.
 - We appreciate the delicacy of the interaction of the CSL and the Safeguard mechanism. With any introduction of the CSL before 2030–31, fossil fuel producers could be excluded from the Safeguard mechanism, and those non-fossil fuel producers for whom the CSL will increase costs significantly and who are subject to the Safeguard Mechanism (e.g. aluminium) could be credited their CSL impact.
 - Rebate to fossil fuel companies up to, say, 10% of the CSL receipts in each state for any increase in coal royalties imposed by State Governments post January 2022.
9. With the CSL in place do not subject new coal and gas fields to additional greenhouse checks; just apply conventional environmental approval processes. The CSL means they are “paying their way” in relation to carbon emissions, and so private judgements about international demand can drive whether such projects proceed.
 10. Implement an Australian CBAM so that local industry is not disadvantaged by the CSL, and so that green products can compete within Australia on a level playing field with those that contribute to global warming.
 11. Do not follow the USA Inflation Reduction Act approach of being inward looking and protectionist and without consideration of deficits and debt. Australia’s best approach for its own prosperity and to make the best contribution to world emission reduction is to be outward focussed, relying on the lowest cost inputs

from around the world. The USA IRA is contributing to the USA being a high cost location for renewable energy given local production requirements and the effects of protection and budget deficits on the real exchange rate. That may work for an inward focussed approach, but it cannot suit an export focussed Australia.

12. Boost resources and adjust procedures so that approvals processes for projects are considerably streamlined. There is no logical reason why Australian project approvals take as long as they do.
13. Ensure the Government's Job Skills Australia initiatives, among other things, restore Australia's strengths in geoscience, metallurgy, chemical engineering and other skills needed for the Superpower.
14. Allow companies investing in defined Superpower industries including in renewable power generation and storage to opt in to a cash flow basis for taxation. It is recognised that this will require companies fully to opt in or stay out of the new cash flow basis of business taxation for anti-avoidance reasons. An option to opt in to cash flow taxation would be irreversible.
15. Make access to markets for Superpower goods a major focus of Trade Policy. Initially there will need to be strong focus on the markets of Northeast Asia (Japan, China, Korea) and Europe (including the UK, and others that are not members of the EU).