

CEDA Climate and Energy Conference

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***THINKING LIKE THE RENEWABLE ENERGY SUPERPOWER OF THE
ZERO CARBON WORLD***

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THINKING LIKE THE RENEWABLE ENERGY SUPERPOWER OF THE ZERO CARBON WORLD

Australians has extraordinary advantages in the zero-carbon world economy.

First: We have by far the world's richest combinations of solar and wind resources with land to build them on. Use them well, and we will have the world's lowest cost energy, in immense quantities.

Second: We are by far the world's largest exporter of minerals requiring large amounts of energy for conversion into usable materials. In the zero-carbon economy, the energy will be renewable and Australia will be the place where processing occurs at lowest cost.

Third: We have the resources to be the world's largest exporter of materials that are in much greater demand in the zero carbon than in the old economy—the energy transition minerals.

Fourth: We have immense areas of woodlands compared with the size of our population and economy. This advantage can make two contributions. It can sustainably grow biomass for carbon and hydrocarbon inputs to industry, replacing coal, gas and oil where there are no economically competitive alternatives. And it can securely store carbon in soils and plants.

Fifth: The skills, industrial culture and infrastructure built around the old mining, metallurgy, forestry and agricultural industries are immensely valuable in the new economy, and give us a head start.

Most of the costs of renewable energy generation and hydrogen production , storage and transportation are capital. As a developed country, we have an advantage here as well. The cost of capital for investment can be globally competitive so long as we make sure that there is effective competition in relevant markets.

These rich endowments contrast with the poor resources for the zero-carbon economy in the high-income, densely populated economies of Northeast Asia and Europe. These are naturally our largest trading partners in the zero-carbon economy, as they were in the fossil carbon era—with Southeast and South Asia also being important.

The economies of Northeast Asia and Europe will have difficulty in the supply of zero carbon energy and materials and carry higher costs in the transition to net zero.

Seize its opportunity in the zero-carbon world, and Australia has the foundations for sustained strong investment and export growth, and full employment with rising incomes for a rising population for more than a generation.

Seize its opportunity in the zero-carbon economy, and Australia makes it much more likely and less costly for the countries of Europe and Northeast Asia to achieve timely transition to net zero, in three ways. We can directly supply zero-carbon goods that reduce emissions in Northeast Asia and Europe by at least 7 percent of current global emissions. We can supply essential energy transition minerals that would otherwise be bottlenecks. And by decarbonising quickly at low cost the economy with the developed world's highest emissions per person, Australia, can demonstrate to the world that economically rewarding transition is possible.

Seize its opportunity, and Australia becomes a Superpower of the zero emissions global economy. We will be exporting zero-carbon goods and credits of greatly higher value than our exports of coal and gas in today's and yesterday's world.

Building the Superpower is not incremental adjustment of Australian economic development in the twenty first century so far.

Building the Superpower will change every dimension of our economic development.

Both Commonwealth and State Governments will have to establish new economic policy coordination mechanisms, to ensure timely availability of human skills and public and private capital; fiscal policy systems that collect revenue from economic rent while encouraging innovation and investment in activities in which competition disciplines returns on investment; greatly expanded public good infrastructure led by electricity transmission and hydrogen transportation and storage; foundations for community understanding and participation in decisions; and timely environmental and regulatory approvals; open international trade with the whole world. It is an

essential role of the Commonwealth Government to secure access to markets and globally competitive costs of inputs across the complete supply chains for zero-carbon energy and industry.

This will require a quality of political leadership and administrative excellence across the Federation that we saw in Australia's postwar reconstruction and the reform era from 1983 until the end of the twenty first century, but which so far has been the exception rather than the rule in Australian economic development.

The Commonwealth's recent announcement of the National Net Zero Authority and Queensland Deputy Premier Steven Miles' statement just now demonstrate increasing awareness of what needs to be done.

We will only build the Superpower with business innovation and competitive response to opportunity above the practice that has delivered dismal productivity performance so far in the twenty first century. I set out some of the challenges in creating a competitive environment in my Bannerman Lecture at the ACCC earlier this month.

We will need 8 trillion of today's dollars of investment in the new energy and industry over the next several decades, or around 5.5 percent of our total economic output and expenditure. That sounds unlikely, until we calculate that we invested something like that in restructuring the economy to supply minerals during the China resources boom earlier this century.

Building the Superpower requires high levels of community engagement, understanding and support. The support will come with understanding of the nature of the opportunities—of the employment and incomes growth widely distributed across Australia that would come with building the Superpower. This is an opportunity for economic development to be stronger in rural and provincial than in metropolitan Australia. This is an opportunity to accelerate employment growth outside the southeastern heartland of the old Australian economy. It is an opportunity for Indigenous Australians to play leading roles in transformative change.

The Superpower future has gradually entered our discussion of public policy over the past few years. The Prime Minister in his acceptance speech on election night a year ago spoke about the Superpower. The Commonwealth Treasurer in his budget speech last week twice referred to the Renewable

Energy Superpower. Every state Premier has spoken of her or his ambitions for its state contributing to the Superpower.

But our thinking about the future has not yet absorbed the scale of the change that is necessary.

Small and incremental change of the kind to which we have become re-accustomed in the twenty first century is all we have to get us started. The early new investments have to fit into niches of excess capacity in existing infrastructure. They mostly have to be undertaken by businesses and to use skills that are already here.

But our progress will stop if we do not shift to much bigger thinking within a few years.

Within a few decades we will need power generation and transmission capacity that is around 50 times greater than current volumes.

We are not yet thinking that big.

The Queensland Energy and Jobs Plan released late last year is an excellent document. It defines a path to decarbonisation of the existing power system with old patterns of growth in demand for power.

It does not set out to supply the immense increases in supplies of power that are required to deliver announced ambitions for zero-carbon industrial growth along the central and northern coast between Gladstone and Townsville. And fulfilment of announced ambitions would provide only a small proportion of the power required to meet central and northern Queensland's disproportionate share of Superpower opportunity.

Since the release of the Energy and Jobs Plan last September, the Government has announced large investment in expansion of transmission capacity from inland solar and wind resources to the industrial development of Townsville. That is another necessary step. We have to reach west of the Divide for the volumes of high quality solar and wind resources and the positive community attitude that are necessary to power the Queensland share of the Superpower. The Copper String transmission west to Hughenden and Mt Isa is an initial step on a long journey.

There has to be comparable commitment to supply of power to meet the immense zero-carbon industrial potential of Gladstone, and the opportunities in Rockhampton, Mackay and the old coal mining and power generation centres of the Bowen Basin. Allowing Gladstone to achieve its potential requires large-scale transmission to the superior solar and excellent wind resources and the positive community attitudes of adjacent regions west of the Great Divide.

My colleagues and I in the 2022 Panel to advise the Queensland Government on the use of the water that falls in central and northern Queensland—the Bradfield Panel—drew attention to the advantages of a transmission Rhombus of Reliability. This would connect in the near west the transmission lines west from Townsville and Gladstone, increasing the capacity and reliability of both.

That would be a big third step on the journey to Queensland’s role in the Superpower.

But it would still be only part of the journey.

This is an historic opportunity for Australia. Using it well will underpin more than a generation of economic expansion, through a period when Australia will need economic strength in a troubled world. Using it well can play a large role in the world’s timely achievement of net zero emissions.

Thinking big will be worth the effort.