

INVESTING IN CHEAPER, CLEANER ENERGY AND THE NET ZERO TRANSFORMATION

Thank you for the opportunity to provide comments on the Productivity Commission's interim report titled '*Investing in cheaper, cleaner energy and the net zero transformation*'.

This submission includes excerpts of relevant passages from '*Is Australia still the lucky country?*'¹

PROBLEMS ASSOCIATED WITH THE CURRENT APPROACH

For some time a number of people have fervently championed renewables, while demonising non-renewables. This mindset has been based on ideology rather than objectivity. It may be possible, one day, for renewables to meet all our energy needs in a cost-effective way. But this scenario is likely to be well into the future. Until then we will need to rely on non-renewable energy to cover what will be ever-increasing energy shortfalls.

Significant hypocrisy has been associated with the energy debate. For example, we hear a great deal of negativity about coal and LNG, but we don't hear much criticism of the \$160 billion worth of these products that we export each year; much of it going to the biggest carbon emitters in the world. Similarly, people who are anti-nuclear, because they believe it is too dangerous, should also be complaining loudly about our \$800 million in annual exports of uranium.

With regard to investing in cleaner energy — and possibly cheaper energy in the longer term — it is most unfortunate that the government has so far declined to consider the nuclear option.

Many people seem to believe that nuclear energy will need to be part of the mix if we are to produce enough energy to meet our increasing demands. Nuclear energy has come a long way over the past couple of decades. Nuclear power generators are now much smaller, more modular, more scalable, and much cheaper.

It also appears that AI systems have not been adequately taken into account in assessing our future energy requirements. AI systems already consume inordinate amounts of energy, and this consumption is set to increase exponentially in the future. By all accounts it won't be possible to produce the staggering quantities of extra energy required for these massive systems unless nuclear energy is a significant part of our energy production. AI systems also require significant quantities of water to stop them over heating. It may actually be more efficient, more sustainable and cheaper to use nuclear energy, instead of water, to cool these systems.

The primary aim of net zero is to combat climate change. As a result, many people appear to think that the term net zero is just a new catch phrase for the climate change debate that has been raging for many years — with little success. Unfortunately, terms like net zero and climate

¹ Rory Ellison, [*Is Australia still the lucky country? Working together towards greater economic and social wellbeing*](#).

change seem to have lost traction and relevance amongst the general population and businesses.

It appears most people agree that climatic conditions around the world are changing. But, there is considerable disagreement about the extent to which humans are responsible for these changes. While some believe human activity is the primary cause, others regard the changes as being part of very long-term cycles that have been occurring since the beginning of time. This divisiveness is hampering efforts to secure community and business engagement with, and support for, the net zero campaign.

There is nothing wrong with net zero. In fact it represents an extremely important goal. What **is** wrong is the government committing, at this point in time, to a date by which net zero must be achieved. We haven't even begun to identify and quantify the multitude of costs that would result from net zero. And we don't know how these costs would be met.

I believe that the excessive focus on net zero has caused us to lose sight of the bigger picture.

A PROPOSED NEW PARADIGM

The focus of attention on net zero should be broadened to include other important goals. As indicated in the Appendix, and discussed below, our attention should be shifted to our 'national resources', which should be regarded as consisting of 'natural resources' and 'created resources'.

Natural resources

In relation to our natural resources, the focus should be on what the government, the public sector, businesses, other organisations and Australians generally must do to leave future generations with outcomes along the lines of the following:

- Desirable and stable temperatures and weather conditions that benefit all people, animals, plants and businesses
- Clean and healthy air for people, animals and plants to breathe
- Clean and healthy water for people, animals and plants to drink
- Clean and healthy rivers, lakes and oceans for recreational, commercial and industrial purposes
- Healthy and sustainable flora and fauna
- Clean and pollution-free land for the benefit of people, animals and plants
- Fertile land for the efficient production of nutritious food
- Land that enables productive commercial and industrial activities
- Beautiful, unspoilt scenery for Australians and international visitors to enjoy.

Given that desired outcomes like these are unambiguous and critical for Australia's future, the vast majority of people, businesses and other organisations would fully support and engage with them.

The government should establish a major inquiry to examine the above illustrative outcomes, and obtain agreement on a final set. The inquiry should then determine how best to achieve the agreed outcomes. The inquiry should draw on the opinions and expertise of appropriate

representatives of the government, other politicians, the public service, academia, commerce, industry, not-for-profit organisations and the broader community.

Clearly, the various forms of energy production will have a major impact on the achievement of these outcomes. The inquiry should therefore include a rigorous evaluation of all the benefits and financial, economic, social and environmental costs associated with each type of energy — including nuclear energy.

Information from other countries should be gathered and analysed as part of the evaluation, including the many countries that have embraced the nuclear option.

Following completion of the inquiry, a thorough review should be carried out every two years to determine the extent to which progress is being made towards each of the desired outcomes.

Created resources

With regard to our created resources, the focus should be on what the government, the public sector, businesses, other organisations and Australians generally must do to leave future generations with the required quantity, and highest possible quality of:

- Buildings
- Infrastructure
- Accumulated know how and systems
- Political and economic institutions.

As above, the vast majority of people, businesses and other organisations would fully support and enthusiastically engage with these unambiguous and critical outcomes.

The government should set up a second major inquiry to examine the above illustrative outcomes, and obtain agreement on a final set. The inquiry should then determine how best to achieve the agreed outcomes. The inquiry should be established along similar lines to the natural resources inquiry.

Following completion of the inquiry, a thorough review should be carried out every two years to determine the extent to which progress has been made towards each of the desired outcomes.

National resources

The proposed national resources concept encompasses everything Australia has at its disposal, and everything its people and businesses use and benefit from. This model would offer a more compelling and meaningful basis for determining what needs to be done to enable a productive and sustainable future for all.

All members of society and businesses would be well aware that they would be enriched in financial and non-financial terms by respecting, preserving and enhancing these resources.

The government should encourage companies to regard our national resources in the same way they view businesses assets, i.e. things that must be protected, maintained, improved and added to in order to maximise their return on assets.

The government should actively and continuously reinforce this important analogy between national resources and business assets.

The government should encourage and educate business leaders to understand that, without these 'assets', there would be no long-term future for their businesses. In other words, business leaders need to be convinced that it is in their own self interest to take our national resources seriously.

If businesses and the wider community work towards the maintenance and continuous improvement of our national resources, overall economic and social wellbeing would be increased.

Rory Ellison

APPENDIX

A PROPOSED NATIONAL RESOURCES FRAMEWORK

NATURAL RESOURCES

- **Land** — including the activities and enterprises that the surface can be used for, and the minerals and other resources that lie below the surface
- **Topography** — including the physical appearance of the natural features of an area of land, especially the characteristics of its surface
- **Water** — including piped water used for drinking and other personal and industrial purposes, the activities and enterprises that rivers, dams, lakes and oceans can be used for, and the minerals and other resources found beneath ocean beds
- **Air** — including all the invisible gaseous substances surrounding the earth, and the ozone layer
- **Flora and fauna** — including all plants and animals
- **Climatic conditions** — including whether the climate of a particular area is naturally hot or cold, how much sunlight is experienced at different times of the year, the normal amount and seasonal pattern of rain received, and whether snowfall is experienced and when.

CREATED RESOURCES

Hard resources

- **Buildings** — including, schools, hospitals, universities, churches, heritage listed buildings and other iconic structures
- **Infrastructure** — including roads, bridges, jetties, docks, other transportation networks, utilities networks, telecommunications, physical tools, robotic and other equipment, electronic devices, information technology structures, lawns, gardens, playgrounds, sporting and recreational facilities, entertainment and arts facilities, parks and other open spaces.

Soft resources

- **Accumulated know-how and systems handed down from generation to generation** — including knowledge, skills, intellectual property, intellectual capital, policies, practices, procedures, methods, the Internet, 'apps', social media, artificial intelligence, and other forms of technology
- **Institutions** — including all political, economic, organisational and social entities, as well as values and cultures that have generally been created and maintained by relevant authorities such as governments and public services.