



REPORT OF A DEBATE ON THE FUTURE OF THE ELECTRICITY INDUSTRY HELD IN SYDNEY ON 23 JANUARY 2018

Chair	Robert Pritchard	Executive Director, Energy Policy Institute of Australia
Panel	Dr Ron Loveland	Energy Advisor to the Welsh Government
	Dr Liz Develin	Deputy Secretary, NSW Department of Planning and Environment
	Dr Jonathan Mirrlees-Black	Director, Cambridge Economic Policy Associates

Overseas expert warns of ‘a decade of chaos’ in the electricity industry

Introducing the debate, overseas energy expert, Dr Ron Loveland, painted an exciting, but in some respects potentially very grim, view of the future.

Loveland openly warned that ‘a decade of chaos’ was likely in those economies that failed to undertake the reforms necessary to respond to the challenge of climate change.

The debate took place under the Chatham House rule.

A technology-neutral approach is required for grid resilience

Although intermittent power sources, such as wind and solar, continue to make up an increasing percentage of the energy mix, governments are only beginning to address the issue of grid resilience.

Electricity systems must be able to respond to variances in power supply when the wind doesn't blow or the sun doesn't shine. The challenge is to keep the power on and ensure that electricity remains affordable. A technology-neutral approach is required that considers all possible solutions without prejudice or predisposition to any option. The emphasis must be on the cost of deployment rather than seeking innovative solutions. This approach can allow for the optimisation of the energy mix and enable deployment of both intermittent and baseload power at the lowest possible cost.

Australia lacks energy policy certainty

The absence of energy policy certainty was a recurring theme of the debate. There was dismay that Australia's failure to meet its energy needs had been an obvious and slow crisis to which the federal and state governments had not adequately responded. Decisions affecting the electricity sector, rather than being directed by a clear policy framework, had been made on an ad hoc basis in response to a range of drivers. At the most basic level, energy policy had been driven by discrete factors that are not necessarily spoken about,



such as how we plan our cities as they grow, the changing energy needs of transportation, and the availability of new technologies. More overtly, over the past ten years, two main drivers of energy policy had been the affordability of electricity and, increasingly, environmental concerns over climate change.

Australian policy is presently being driven by the fear of blackouts

Energy policy has come to be driven by the fear of blackouts. If the New South Wales grid were to be brought down by failures in South Australia or Victoria, this could threaten the commitment of the states to the National Electricity Market.

The risk is likely to continue as older coal powered stations are retired and the lost capacity is not replaced, potentially creating a cliff over which the power system could fall.

Policymakers need to provide strategic guidance on the energy mix

A contributing factor to the uncertainty is the continued failure of the federal and state governments to provide strategic guidance on what they want – which would help delineate the future energy mix for Australia. Comparison was made with Japan and Thailand who have both planned for their future and indicated to the market what new power generation needs to be built.

Support was reiterated for a technology-neutral approach to meeting Australia's emission reduction targets. One discussant quipped that technology-neutral in Australia means anything that doesn't have nuclear or coal in it.

To achieve significant reductions in emissions within the timeframe set by governments, and without also harming GDP, it will be necessary to continue relying on gas and coal and to utilise carbon capture and storage technology.

Affordability remains a foremost concern and manufacturing is under pressure

The high cost of electricity and gas is putting Australian manufacturing under intense pressure and undermining Australia's competitive edge on the global stage. Within two to five years, some factories could close their doors and jobs could move offshore. Discussants were reminded that, when manufacturers shut factory doors, they don't come back.

Frustration was expressed at the decade-long failure of Australian governments to respond to high power prices. There was concern that the urgency of the situation had still not been fully recognised at a political level. One discussant suggested that, in the near-term, decisions will be forced on the federal and state governments and many of these decisions may have a bearing on voters when multiple elections are held throughout Australia over the next two years.

It is not yet clear where the National Energy Guarantee (NEG) will lead

The recommendations of the Energy Security Board for the introduction of the NEG, set out in its letter to the Minister for Environment and Energy, may act as a circuit breaker and may shift the policy emphasis away from a simple clean energy target to a more balanced policy.



However it was feared that the convoluted nature of the NEG's recommendations could reflect differences of opinion amongst stakeholders.

Concern was expressed about the results of modelling of the policy, and that neither the Energy Security Board nor COAG had engaged many of the experts who the meeting thought should be helping delineate the key principles. Nonetheless, at a conceptual level, the NEG could be successful by comparison with overseas experiences. It may provide a significant improvement to Australia's current policies. While COAG has currently only committed itself to considering the policy, it will be essential for industry to be fully involved if the policy is to work. It is understood that the Board will soon be issuing a discussion paper to provide industry with the first opportunity to be involved.

Despite the logic of utilising nuclear power, it remains a taboo topic

A discussion around the nuclear power option began with the comment that nuclear is a taboo topic in Australia; it is discussed neither in public, nor at ministerial level. The likelihood of the government changing its position any time soon was lamented as zero. Discussants expressed considerable frustration with governments about this.

It was suggested that there is a compelling logic for Australia to utilise nuclear power as it can provide competitive baseload energy with minimal emissions. South Australia provides an example of where nuclear could be introduced as, despite having one of the highest penetration rates of rooftop solar in the world, the state continues to struggle with grid stability. Nuclear power could not only be integrated with renewables but would be a cheaper option than battery technology.

Small Modular Reactor (SMR) technology was advocated as the best type of nuclear power technology for Australia. If enabling policy decisions could be made, SMRs could be utilised in key spots on the grid by 2030 or 2035.

To get to the point where nuclear power is a possibility, the narrative would need to change and it would need to be accepted as a legitimate part of the future energy mix. In the UK, nuclear power went from being definitively off the table a few years ago to having bipartisan support today. First, the UK started by acknowledging climate change and the need to reduce emissions. From this position, nuclear power became part of the solution to establish a combination of baseload power and lower emissions intermittent power. Second, the issue of nuclear waste was sorted out at the start and it was demonstrated that spent fuel could be safely disposed of. Third, nuclear power had industry support from companies who were effective advocates for the technology. Finally, the push to utilise nuclear power was science-driven and politicians were willing to engage with scientists who backed the technology.

Closing note: *The debate summarised in this report was held under the Chatham House rule. None of the reported discussion may be attributed to any person or to the Energy Policy Institute of Australia.*

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