Energy Security: Responding to the Failure of the National Electricity Market

Submission to: NSW Electricity Security Taskforce

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This submission is a statement of my personal views and does not reflect the position of the University of Queensland

Summary

1. The risks facing the NSW electricity system can only be understood in the context of the failure of the National Electricity Market to achieve the objective of a secure, affordable supply of electricity and of the failure of the current Commonwealth government to offer a serious response to climate change. These fundamental failures cannot be addressed by minor adjustments to

2. The appropriate long-term solution is the establishment a publicly owned national grid, operated by a statutory authority with a service orientation encompassing the goals of security of supply, affordable electricity, and a transition to a fully renewable generation system.

3. In the interim, NSW should consider measures similar to those announced in South Australia, including investment in publicly-owned on-grid storage, managed to ensure energy security

Energy Security: Responding to the Failure of the National Electricity Market

Introduction

The NSW government has appointed an Electricity Security Taskforce to:

1. assess the risks to and resilience of the NSW electricity system (including the transmission and distribution networks), from extreme weather events in the context of a changing climate

2. review the adequacy of the State's management of electricity system security events including prevention, preparedness, response and recovery

3. make recommendations on actions to address any vulnerabilities identified and/or opportunities for improvements in current practices

The purpose of this submission is to place the problem of energy insecurity in the context of past policy failures, centred on the National Electricity Market and the failure to address the problem of climate change.

Background: the failure of the National Electricity Market

The National Electricity Market has been a comprehensive failure. It has resulted in higher distribution costs and larger retail margins, and has failed to provide sensible investment signals or a secure supply of electricity.

The failure of the NEM was evident well before the expansion of renewable electricity. Attempts by the Commonwealth government to use recent failures as the basis for an ideologically driven attack on renewable have created confusion and disruption.

The fragmentation of the electricity supply industry into separate generation, transmission, distribution and retail sectors has reduced security of supply, generated market risk and increased costs.

Quiggin (2014) documents the failure of the National Electricity Market, noting that prices have risen dramatically in all states, regardless of whether the electricity industry has been privatised or merely corporatised. In particular, while advocates of privatisation have made much of the fact that increases in distribution charges have been more moderate in the privatised Victorian system[1], retail margins have increased much more in that state, leaving consumers equally badly off.

The conclusions drawn in Quiggin (2014) have been supported in a recent report by the Grattan Institute (Wood, Blowers and Moran 2017), focusing particularly on the failure of retail competition. Key findings in the accompanying press release

> Competition in electricity retailing has failed to deliver lower prices for consumers, and governments will need to step in and re-regulate prices if the industry does not lift its game. Prices in Sydney, Melbourne, Brisbane and Adelaide have almost doubled over the past decade. In Victoria, the profit margin for electricity retailers appears to be about 13 per cent – more than double the margin regulators traditionally considered fair when they had responsibility for setting prices. ...
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> Although lower price deals are available, consumers find the market so complicated that many give up trying to find them. As a result many Australians, including some of the most vulnerable, pay more than they need to.
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> ...
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> Competition has also failed, so far, to deliver the promised innovation in customer services. Most 'offers' merely provide a discount for people who switch their retailer or pay their bills on time or via direct debit. But retailers have been slow to build offers based on the benefits available through smart meters, or the

[1] These differences appear to be due more to favourable geography and climatic conditions, which have reduced the cost of distribution networks and the 'peakiness' of demand, than to any effect of ownership.

bundling of new technologies such as solar-power and battery-storage systems.

https://grattan.edu.au/report/price-shock/

Privatisation and corporatisation

Privatisation and corporatisation of monopoly utilities has increased capital costs, with few or no offsetting benefits. Whereas the 20th century model required utilities to generate returns on capital with a modest margin above the government bond rate, the current policy regarding monopoly utilities allows a weighted average cost of capital (WACC) derived from comparable private companies, operating in competitive or oligopolistic markets.

Privatisation has reduced public sector net worth and created regulatory conflict between private (usually foreign) owners of electricity assets and the Australian public. Higher electricity prices benefit owners and harm the public. The contrary claim that public ownership involves a conflict of interest is the reverse of the truth. Governments are answerable to the public, considered both as taxpayers and as electricity consumers. Hence, they do not benefit from unjustified price increases.

Climate change

The problems of the NEM have been exacerbated by the failure of its designers to take account of climate change, even though the issue was already on the policy agenda when the NEM was introduced. The mismanagement of energy policy by the Commonwealth government since 2013 has further aggravated all of these problems. These failures include

(i) the removal of carbon pricing

(ii) attacks on the Renewable Energy Target

(iii) the inadequate and ineffective ‘Direct Action’ policy

(iv) rejection of the emissions intensity scheme recommended by Climate Change Authority and widely supported by industry

(v) ideologically/culturally driven attacks on climate science by members and political allies of the government

Responses

There is no easy way to fix the problems of the system, which have been deeply embedded in policy and investment decisions for two decades. It is useful to look at ultimate goals, obstacles and possible pathways

Ultimate goals

The ultimate goal of policy should include

(i) a publicly owned national grid, operated by a statutory authority with a service orientation encompassing the goals of security of supply, affordable electricity, and a transition to a fully renewable generation system

(ii) the abandonment of the electricity pool market, in favor of longer dated supply contracts, with an order-of-merit system of supply management

(iii) a mixture of public and private electricity generation and networked storage

(iv) reintegration of distribution and retail services

Pathways

With the intervention recently announced by the South Australian government, it seems clear that the National Electricity Market cannot be sustained in its current form. The announcement that the Commonwealth government will also invest in storage capacity through Snowy Hydro reinforces this position. NSW should consider similar measures, including publicly owned on-grid storage.

Hence, the first step towards a National Grid should be a restructuring of the NEM. The pool market should be abolished and replaced by a combination of capacity payments and an order-of-merit supply system. This system should incorporate a carbon price and a plan for an orderly phasing out of high-emissions coal-fired power.

Obstacles

Among the many obstacles to the restoration of an electricity supply system focused on the public interest, the most important is the legacy of privatisation and the problem of sovereign risk. A 'big bang' approach to renationalisation is infeasible. The appropriate process is to increase public control over the network, and reduce the risk premiums paid to asset owners, allowing a gradual conversion of equity to debt.

Summary

Problems with energy security in Australia can only be understood in the light of the comprehensive failure of the National Electricity Market. The only adequate response is the creation of a genuinely National Grid, managed with an orientation to consumer service and environmental sustainability, rather than the spurious pursuit of market competition.

References

Quiggin, J. (2014), 'Electricity Privatisation in Australia: A Record of Failure', Report to Electrical Trades Union.

Wood, T., Blowers, D., and Moran, G. (2017) *Price Shock: Is the Retail Electricity Market Failing Consumers?*, Grattan Institute, Melbourne.