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Senate Select Committee on Electricity Prices
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Supplementary submission to Senate Select Committee on Electricity Prices 2012

Grid Australia appreciates the opportunity provided by the Committee to respond to the supplementary submission made by Mr Bruce Robertson. Mr Robertson's claims in relation to those aspects of Grid Australia's submission concerning the causes of electricity price rises and the regulatory framework are addressed below.

At the outset, it is important to emphasise that Grid Australia considers any suggestion that it or its members would deliberately provide incorrect information or attempt to mislead the Committee, or any other review body, is highly inappropriate.

Causes of price rises

The Committee invited those parties making submissions to the inquiry to identify "the key causes of electricity price increases over recent years and those likely in the future".

Grid Australia identified five key causes in its original response: the need to replace ageing infrastructure, increases in energy usage, increases in peak demand, reliability standards, externally-driven impacts (such as rises in financing and input costs) and other factors (such as the costs of green schemes, bushfire regulations and the introduction of smart technologies).

These are well recognised and accepted factors that were also identified by the following bodies in their submissions to the inquiry:

- the Australian Energy Regulator (AER);
- the Department of Resources, Energy and Tourism (RET);
- the Australian Energy Market Commission (AEMC);
- the Business Council of Australia (BCA); and
- the Energy Networks Association (ENA).

Changes in demand

Mr Robertson notes that both energy usage and peak demand have recently fallen and claims that Grid Australia's submission was misleading by referring to price rises being driven in part by past and likely future increases in demand.

By way of context, peak demand is the maximum power demand (measured in watts) at any point within a period of time. Energy usage is the total energy demanded over a period of time (measured in watthours). At the network level, peak demand is typically discussed in units of millions of watts or megawatts (MW) and energy usage in units of millions of megawatt hours (MWh).

Importantly, electricity network businesses must build their networks to meet forecast *peak* demand for electricity. That planning is undertaken carefully as transmission investment projects are typically large and expensive and take long lead times (up to eight years) to plan and build. For example:

- a 330 kilovolt (kV) single circuit line is typically 100 kilometres (km) long and costs around $100 million to build; and
- a substation rebuild typically costs around $75 million.

Transmission planning relies on long term trends and takes into account a range of factors including weather patterns, economic factors and customer behaviour. As demand forecasts are updated, transmission network businesses will review and adjust their planned capital projects. Most recently, the Australian Energy Market Operator (AEMO) has begun developing and publishing a set of independent electricity demand forecasts on a consistent basis for every region in the entire National Electricity Market (NEM), the first of which was published on 29 June 2012.

Actual peak demand almost inevitably varies from forecast peak demand in any given year. This is to be expected, as there is a strong correlation between peak demand and temperature, and the demand forecasts are developed based on a one-in-two-year probability of weather events occurring (known as "50% Probability of Exceedence (POE)") for the majority of transmission planning. The crucial point to note is that, even with the best forecasting methods, those differences in each year cannot be predicted. The only way to reliably plan and build the transmission network is to do so on the basis of *forecast* peak demand.

This leads to Grid Australia making three points in response to Mr Robertson's claims.

First, I specifically acknowledged that both energy usage and peak demand had fallen in the last two years when I appeared before the Committee, as recorded in Hansard:

> "In the last year or two we have observed a softening of demand, with peak demand falling and energy consumption falling, and the companies are going through their plans to look at how they reduce capex and how they rework the numbers and the solutions to meet the demand".

Second, while energy usage and peak demand have recently softened, the evidence is that peak demand (and energy usage) will continue to rise in the future. By way of example, AEMO's National Electricity Forecasting Report 2012 indicates that, over the next ten years, the peak demands across the five NEM regions are expected to continue to grow between 1.0 and 2.5 per cent annually on average. Total energy consumption is also expected to grow, by 1.7 per cent annually on average. The relevant extracts from AEMO's Report appear at Attachment 1.

I find it concerning that Mr Robertson selected data from the AEMO report to show that actual peak demand has softened in recent years while ignoring AEMO's forecast of growth in peak demand in the same report. That peak demand is forecast to continue growing in every region of the NEM was a key AEMO conclusion and it is unclear why Mr Robertson has not referred to this information in his submission. The Committee may wish to consider what weight it places on Mr Robertson's claims in light of this fact.

Third, in the short term, transmission businesses are actively adjusting their plans and reducing or deferring expenditure to address the lower rate at which peak demand is increasing — TransGrid, for example, has already deferred about one third of its capital works program previously approved by the AER for the 2009-14 regulatory period. This includes:

- the Far North NSW Project (estimated cost $227 million);
- the Stroud to Lansdowne transmission line project ($165 million); and
- the Bannaby to South Creek Project ($464 million).

External factors

Mr Robertson argues that "government owned utilities effectively borrow at the government rate and make massive margins on [their] regulated return".

This claim has specifically been rejected by the AEMC as part of its consideration of a change to the National Electricity Rules proposed by the Energy Users Rule Change Committee (EURCC). In its Directions Paper, the AEMC stated that it:

> "does not consider the EURCC proposal for different arrangements to apply to government-owned and private sector NSPs for determining the cost of debt is appropriate. This is because it fails to fully recognise the role of competitive neutrality principles. In addition, it does not factor in the impact and role of debt neutrality fees."[1]

The AEMC reiterated this view in its subsequent Draft Rule determination[2] and I confirm that each state-owned electricity transmission business actually pays for its debt based on its standalone credit rating through the payment of the debt neutrality fee uplift.

The increase in financing costs has impacted both Grid Australia's private and government-owned members. Grid Australia notes that the AER, in its own submission to the Committee, stated that:

> "rising capital financing costs - reflected in higher rates of return on the investment made by the network businesses - were the other major factor that contributed to higher network revenues and charges... The primary driver was rising borrowing costs arising from changes and fluctuations in global financial markets following the Global Financial Crisis that reduced liquidity in debt markets and increased perceptions of risk..."[3]

Other factors

Grid Australia stated in its original submission that network "infrastructure costs make up a much larger proportion of electricity bills in Australia compared to many other countries because of the vast distance to cover".

Mr Robertson disagrees with this statement, arguing that:

> "the USA and Canada are also very large countries. Population is very concentrated in Australia with most of the population in a narrow band between Brisbane and Australia on

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1 Economic Regulation of Network Service Providers and Price and Revenue Regulation of Gas Services, Directions Paper, AEMC, 2 March 2012, p vi.

2 Economic Regulation of Network Service Providers and Price and Revenue Regulation of Gas Services, Draft Rule Determinations, AEMC, 23 August 2012, p 80 *et seq*.

3 Submission to Senate Select Committee on Electricity Prices, AER, 17 September 2012.

the cost. As [Grid Australia's] own map on page three of their own submission shows most of the country is entirely devoid of Transmission infrastructure."

Grid Australia stands by the comments made in its submission.

The NEM is the world's longest interconnected transmission network stretching over 5,000 kilometres between Far North Queensland and South Australia. Mr Robertson's comparison does not take into account the fact that this network supplies Australia's regional and remote areas which combined account for just under one third of Australia's population[4]. Nor does his view reflect the differences in network topology, generation sources and economic environments between Australia, the USA and Canada.

The regulatory framework

Finally, in its original submission, Grid Australia stated that:

> "the regulatory regime in place is the product of more than 15 years of sound policy development involving all of Australia's governments. The Rules target efficient prices and sustainable investment. They largely get the balance right but Grid Australia supports changes to the Rules where it can be demonstrated there is no threat to supply and a benefit to consumers."

In response, Mr Robertson asserts that Grid Australia "appears to be one of the only authorities that believes that the regulatory regime is working well", arguing that Grid Australia's views have been contradicted by the AER and other commentators.

Electricity prices are being driven by many market pressures. This has been acknowledged by the stakeholders identified at the beginning of this submission, including the AER, in response to a range of inquiries concerning the regulatory regimes applying to electricity network businesses.

Grid Australia stands by its position that these frameworks largely get the balance right.

However, it has also made clear that there are a number of improvements that could be made to the economic regulatory framework that sets the revenues of network businesses to help address the impact of rising prices. These include:

- strengthening the incentives on the businesses to be efficient;
- enabling increased flexibility in terms of how components of the AER's revenue decisions are arrived at; and
- providing consumers with the opportunity to have more input into the AER's processes[5].

In addition, Grid Australia is also working to reduce prices pressures by:

- encouraging effective demand side participation to provide a viable alternative to continually expanding networks in order to meet peak demand;

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4 Data cube 3218.0, Population estimates by remoteness areas 2001 to 2011, Australian Bureau of Statistics, July 2011 located at http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3218.02011?OpenDocument.

5 Economic Regulation of Network Service Providers and Price and Revenue Regulation of Gas Services, Grid Australia submission to the AEMC's Draft Rule Determination, 4 October 2012.

- developing a new planning standard that would transparently balance the value of customer reliability against costs; and
- the greater use of smart technologies to operate more effectively and efficiently[6].

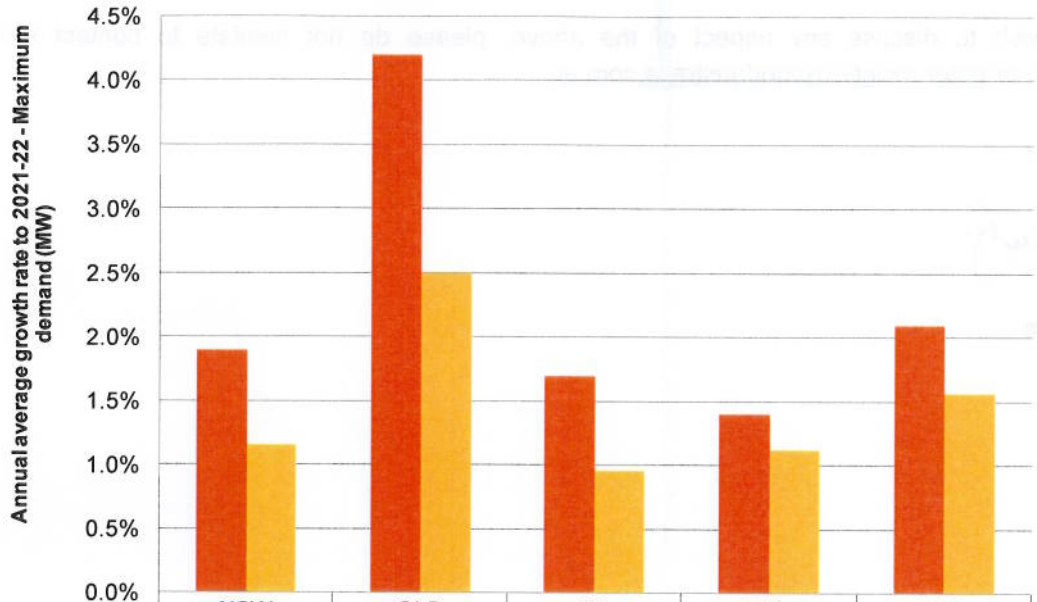
Yours sincerely

Peter McIntyre
Chairman

6 See media release "Balanced Strategies needed to tackle rising electricity prices" dated 24 October 2012 at Attachment 2.

Attachment 1 – AEMO energy and maximum demand ten year forecasts

Revised maximum demand growth rates



	NSW	QLD	SA	TASa	VIC
2011 ESOO	1.9%	4.2%	1.7%	1.4%	2.1%
2012 NEFR	1.2%	2.5%	1.0%	1.1%	1.6%

Figure 2, National Energy Forecasting Report 2012, AEMO.

Note a: Tasmanian figures are for winter maximum demand, all other states are for summer maximum demand.

Annual energy forecasts for the NEM under the three main growth scenarios

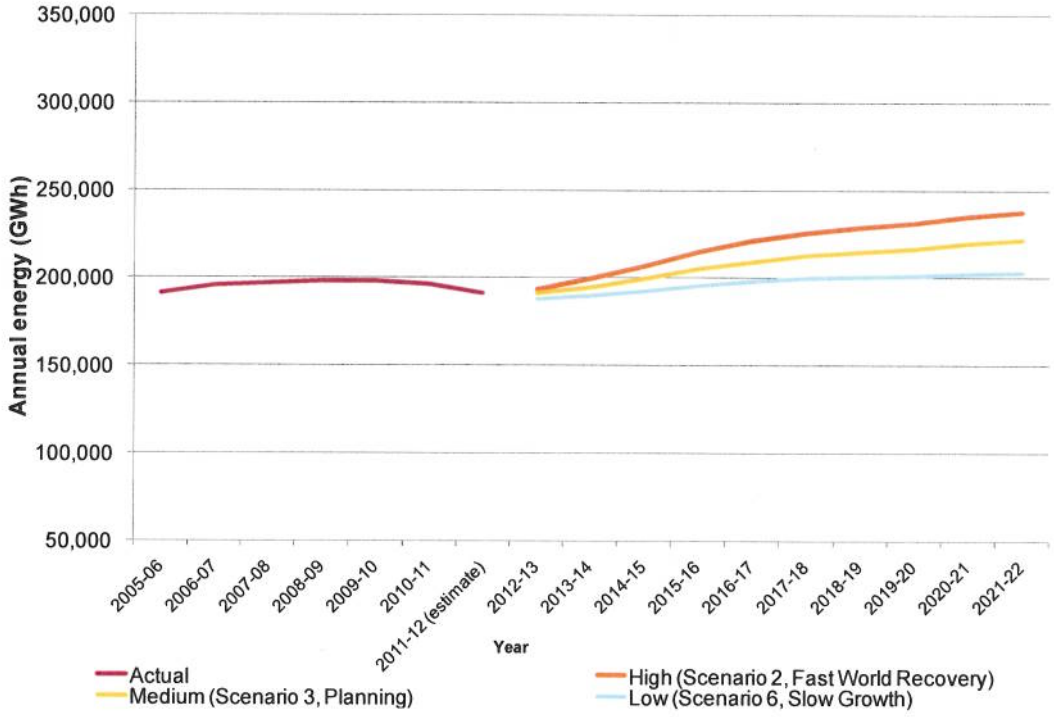


Figure 3-1, National Energy Forecasting Report 2012, AEMO.

Summer 50% POE[1] maximum demand forecasts for NSW (including the ACT)

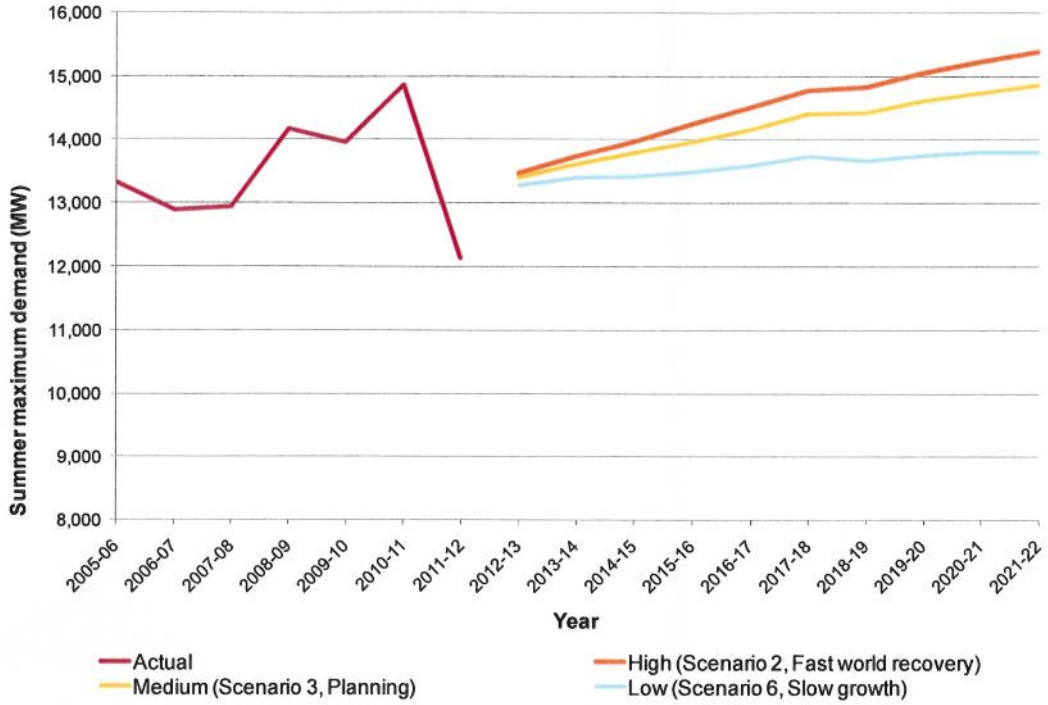


Figure 4-5, National Energy Forecasting Report 2012, AEMO.

1 The 50% Probability of Exceedence (POE) forecast shows the peak demand that has a one-in-two chance of occurring. Network planners use this forecast to plan for system security under the most likely network power flow patterns.

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BACKBONE OF THE NEM

Media Release

24 OCTOBER 2012

Balanced strategies needed to tackle rising electricity prices

Grid Australia today warned the current blame game around electricity prices could lead to short-sighted decisions which may seriously jeopardise Australia's long-term power security.

Grid Australia, which represents all the major electricity transmission networks in the National Electricity Market and in WA, said there needs to be a greater focus on finding solutions, rather than easy targets to blame for rising prices.

Grid Australia Chair, Mr Peter McIntyre said today, the causes of rising prices are complex but the fact is that much of the vital network infrastructure built 40 to 50 years ago needs replacing and these costs are considerable.

Mr McIntyre warned knee-jerk reactions could end up creating costly and dangerous problems in the future, with the greater risk of major power failures affecting millions of Australians due to underinvestment.

Grid Australia members own and operate more than 47,000 km of high voltage transmission lines which provide the vital link between electricity generators and the distribution networks that connect directly with consumers.

To help provide constructive solutions on behalf of transmission operators, Grid Australia today announced a new package of network initiatives to help ease price increases for consumers.

Speaking at the Energy Users Association of Australia's Annual Conference in Sydney today, Mr McIntyre said the package will be presented to the Federal Government this week, to support the broader policy work currently underway to address rising electricity prices.

Grid Australia's package of initiatives to help reduce power costs includes:

Greater measures to reduce peak demand - Grid Australia members will seek greater effective demand-side participation opportunities to provide viable alternatives to expanding the network to meet peak demand. This includes changes to pricing arrangements to drive the right signals to consumers - which would support lower investment in the future. By participating in demand response, energy users agree to reduce their electricity consumption from the grid during periods of high demand, enhancing network reliability. For example, the NSW transmission operator TransGrid, today announced a new deal to contract 35 Megawatts (MW) of network support in the Sydney metropolitan area this summer to reduce peak demand.

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Grid Australia is the organisation which represents the owners of Australia's electricity transmission networks in the National Electricity Market (NEM), plus Western Australia and are interconnected to form the 'backbone of the NEM'. Its members comprise:

- ElectraNet Pty Ltd (South Australia);
- Powerlink Queensland (Queensland);
- SP AusNet (Victoria);
- Transend Networks Pty Ltd (Tasmania);
- TransGrid (New South Wales); and
- Western Power (Western Australia).

Collectively, these own and operate over 40,000 km of high voltage transmission lines; have network assets of more than $10 billion; and invest approximately $1.2 billion in the networks each year.

Media Release

24 OCTOBER 2012

A new planning standard - Grid Australia is proposing a new planning standard that would transparently balance the value of customer reliability against costs. Grid Australia has sought the participation of the Australian Energy Market Operator in the development of this initiative.

A new model for transmission capital expenditure incentives – Currently for transmission operators, the incentive for efficient capital expenditure progressively declines over each five year regulatory period. Grid Australia is proposing a new model that would ensure network businesses have an incentive to minimise all expenditure, not just amounts above forecast allowances.

Deferring investments - Grid Australia members will focus on deferring proposed investment projects in response to reduced demand load growth. For example, TransGrid has already deferred approximately one third ($850 million) of its entire capital works program in the 2009 to 2014 regulatory period.

Interconnection upgrades - Grid Australia members will assess prudent and timely investment in interconnector upgrades to give customers greater access and choice, and therefore more competitive prices, to the cleanest and cheapest wholesale sources of power generation.

Smart network opportunities - Grid Australia members will explore further 'smart network' options such as:

- run-back schemes, which provide greater flexibility in the use of power lines;
- series compensation measures - adding components to lines to increase power flow;
- increase weather condition monitors on power lines to deliver precise real-time ratings which allow for maximum usage of the lines – especially during hot weather conditions; and
- Increase collaboration with distribution network businesses on their smart grid initiatives.

"Transmission networks strongly support ways to ease price increases across the whole electricity sector as long as they do not compromise the safety and reliability of energy supply," said Mr McIntyre.

"There are several comprehensive reviews currently underway which are investigating long-term solutions to provide price relief for consumers without threatening energy security," he said.

"Grid Australia fully supports the review process which will provide the best platform to make balanced and well informed decisions on the future of the power industry."