

17 November 2017

Mr Rod Sims  
Chair  
Australian Competition and Consumer Commission  
23 Marcus Clarke St  
Canberra ACT 2601

Lodged via email: [retailelectricityinquiry@accg.gov.au](mailto:retailelectricityinquiry@accg.gov.au)

Dear Mr Sims,

### **Retail Electricity Pricing Inquiry, Preliminary Report**

TransGrid welcomes the opportunity to make a submission to the Australian Competition and Consumer Commission (ACCC) in relation to the preliminary report of its inquiry into retail electricity pricing.

TransGrid is the operator and manager of the high voltage transmission network connecting electricity generators with major end users and distributors to service more than 3.5 million homes and businesses across New South Wales and the Australian Capital Territory. TransGrid's network is also interconnected to Queensland and Victoria, and is central to interstate energy trading.

The electricity sector is undergoing rapid change driven by a range of factors, including technological change and movements in input costs such as gas prices. The transmission network has a vital role to play in the orderly transition towards an efficient, low emissions future, by enabling new generators to connect to the market, providing a platform for increased wholesale competition across the national electricity market (NEM), and providing services which support the reliability and security of electricity supply in the context of the increasing penetration of renewable generators.

TransGrid is concerned that some aspects of the ACCC preliminary report could be considered misleading or incomplete, and as such, could lead to misguided policy proposals. In particular:

- > The timeframe for analysis chosen by the ACCC does not reflect longer term price trends or more recent developments. Looking at price changes over a longer timeframe provides a more complete perspective of price trends and the underlying cost drivers;
- > The ACCC does not disaggregate network prices into their component parts of transmission and distribution. This obscures differences between the two sectors which should be taken into account when analysing price trends and cost drivers. Similarly, differences between States and regions may be obscured by analysis which focuses at the level of the whole NEM.

We have provided more detailed analysis of electricity price trends and cost drivers in the attachment, particularly in New South Wales, and in relation to TransGrid. It shows that recent increases in the price of electricity have been driven by the wholesale and retail sectors. We

support further consideration of measures which will encourage vigorous competition in these sectors, in order to drive efficiency gains and put downward pressure on the prices which are charged to customers.

TransGrid's prices are now lower in real terms than they were in 1995-96, when TransGrid was first established as a separate corporation. TransGrid's average prices have declined in real terms over the past regulatory period, and are forecast to decline further over the coming regulatory period. Furthermore, both our capital expenditure program and operating costs have been subject to intense regulatory scrutiny over a long period of time, both by the Australian Energy Regulator (AER) and (before that) the ACCC.

TransGrid supports measures which put downward pressure on electricity prices, but not to the detriment of efficient investment, which supports the stability and reliability of supply and the transition to a low emissions future. We caution against implementation of short-term measures to reduce prices where these are likely to substantially increase the risk of unserved energy, or have a perverse impact in the longer term. Measures which retrospectively change the regulatory framework, such as the potential write-down of network assets, reduce the integrity of the regulatory framework, reduce investor confidence, and are likely to increase the cost of capital and prices in the future.

We support the implementation of an overarching energy strategy from Government that facilitates the implementation of the Finkel review recommendations. In particular, the development of an integrated energy plan would provide the basis for providing the lowest delivered cost of energy to customers in the long term, through better coordination of generation and network investment. It would also support the efficient development and connection of new renewable energy. TransGrid is actively developing options for the development of renewable energy zones, to provide cost-effective solutions for the future development of the transmission network, and to support greater competition in the wholesale market.

TransGrid appreciates the opportunity to comment on the preliminary report of the retail electricity pricing inquiry. We have provided more detailed comments and supporting evidence in the attachment. If you would like to discuss this submission, please do not hesitate to contact me on (02) 9284 3300.

Yours faithfully



Anthony Meehan

**Executive Manager, Regulation**

## ATTACHMENT: TRANSGRID SUBMISSION TO THE ACCC RETAIL PRICING INQUIRY, PRELIMINARY REPORT

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This attachment responds to the ACCC's preliminary report into retail electricity pricing, and provides more detailed analysis of transmission pricing trends in New South Wales. It is structured along similar lines to the ACCC's report, as follows:

- > Section 1 discusses issues related to electricity affordability;
- > Section 2 analyses the main factors driving increases in electricity prices;
- > Section 3 comments further on how the market is functioning, particularly
  - o the wholesale market in NSW, and
  - o drivers of network costs.
- > Section 4 discusses options for moving forward from here.

### 1. Australia's electricity affordability

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TransGrid shares the ACCC's concerns about the impact of electricity prices on residential and business consumers. We recognise the importance of finding effective, forward-looking solutions which meets the long term interests of consumers.

The Treasurer's terms of reference to the ACCC provide guidance in relation to the issues on which its inquiry should focus, in particular the competitiveness of the retail electricity market within the NEM, and a range of factors which may impact on this competitiveness.

We note that in considering policy options which respond to affordability concerns, the ACCC also needs to consider:

- > A range of policy goals. Affordability is one arm of a policy 'trilemma' which also includes reliability and environmental objectives.
- > Providing a framework which encourages efficient operation of, and investment in, the energy sector over the long term. This includes a framework which encourages effective competition in the retail and wholesale electricity sectors (in line with the ACCC's terms of reference), and which encourages efficient investment in and operation of the network.

There may be trade-offs both between objectives, and between the short term and long term:

- > The ACCC has recognised the potential for competing priorities in relation to security and reliability, universal access to affordable energy services, and reduced emissions.<sup>1</sup>
- > Measures which reduce short-term prices (for example via writing down the regulated asset base) may increase long-term prices because investors are likely to be less

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<sup>1</sup> ACCC, Retail Electricity Pricing Inquiry, Preliminary Report, 22 September 2017, p11.

willing to invest, or require a higher rate of return to invest to compensate for increased risk.

These examples point to the risk that imposing remedies which focus on a specific objective (such as reducing electricity prices in the short term) may inadvertently cause harm to other objectives (such as reliability or long-term prices).

## 2. What has driven increases in retail electricity prices?

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TransGrid has a number of concerns regarding the ACCC's analysis of retail electricity prices, discussed further below. These include:

- > The time frame chosen by the ACCC for its analysis, and its resulting conclusions about the drivers of price increases; and
- > The failure to split network costs into their component parts of transmission and distribution.

We also provide a more detailed analysis of trends in electricity prices in New South Wales, and in particular transmission prices.

### 2.1 The time frame for analysis

The ACCC focuses most of its analysis on electricity price increases from 2007-08 to 2015-16, and concludes that over this period "increases in residential bills were primarily driven by higher network costs".<sup>2</sup>

TransGrid is concerned this timeframe could be considered misleading because it excludes price trends either before or after the time period chosen:

- > As noted by the ACCC itself, real electricity prices "were reasonably stable between 1990-91 and 2007-08".<sup>3</sup> The increase in prices since 2007-08 should be seen in light of this extended period of flat prices before that time. Transmission investment in particular is project-based and, as such, may show substantial variation from one period to the next as significant assets reach the end of their life and are replaced, or major new projects are undertaken.
- > The ACCC did not have data from retailers beyond 2015-16, but recognises that price increases have since been driven by wholesale prices, not network costs. The ACCC estimates that "higher wholesale costs during 2016-17 were likely to increase the average bill by a further \$167".<sup>4</sup> In New South Wales this assessment is supported by analysis undertaken by the Australian Energy Market Commission (AEMC) and the NSW Independent Pricing and Regulatory Tribunal (IPART), which is discussed further below.

In other words, the time period chosen by the ACCC as the focus for its analysis does not reflect the trend in electricity prices over a longer time period, nor the trend in network prices over the recent past.

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<sup>2</sup> Ibid, p6.

<sup>3</sup> Ibid, p12.

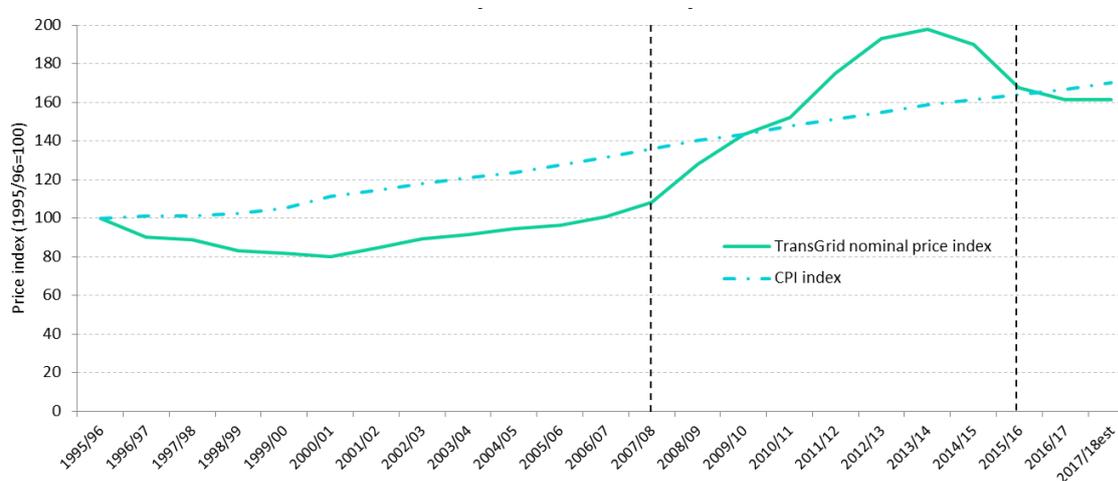
<sup>4</sup> Ibid, p6.

Figure 1 shows the long-term trend in TransGrid's nominal prices (expressed as an index) compared to changes in the consumer price index (CPI). It shows that TransGrid's prices are now lower in real terms than they were in 1995-96, when TransGrid was first established as a separate corporation. The period of analysis chosen by the ACCC in its preliminary report (bounded by the vertical dotted lines) needs to be put into the context of transmission price trends over the longer term.

The increase in real prices above the long-term trend over the period 2009-10 to 2012-13 reflects a number of factors including:

- > an increase in the weighted average cost of capital, reflecting conditions in financial markets following the global financial crisis; and
- > falling aggregate demand for electricity from its peak in 2008-09, which led to an increase in price (measured as \$/kWh).

**Figure 1: TransGrid nominal price index compared to the CPI index**



Source: TransGrid data, ABS 6401.0. Price is calculated as \$/MWh.

## 2.2 Distinguishing transmission from distribution costs

The ACCC data looks at network costs as a whole, without breaking them down between transmission and distribution. This will obscure any differences in the underlying trend in costs between the two sectors. As a result, policy prescriptions applied broadly to both network sectors may be inappropriate for one or both sectors.

## 2.3 Recent NSW electricity price trends – 2015-16 to 2016-17

The AEMC's most recent price trends report highlighted an increase in the price of electricity in NSW over the past year. It showed that the representative total price per kilowatt hour of a residential customer on a market offer has risen from 20.21 c/kWh in 2015-16 to 22.19 c/kWh in 2016-17.

Analysis of the cost components shows that these increases were mainly driven by the competitive sectors of the market, that is, the wholesale and retail sectors (the AEMC data does not distinguish between wholesale and retail). Between 2015-16 and 2016-17, the price of electricity in these sectors of the market combined increased by 19.3%.

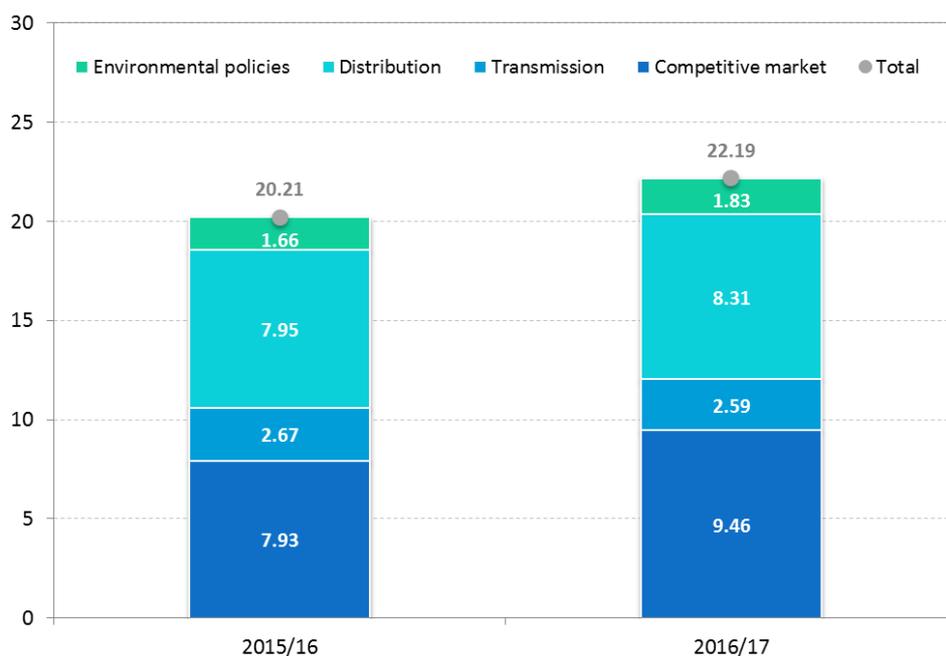
The AEMC attributes these price increases to:

- > a short-term tightening of the supply-demand balance, placing upward pressure on wholesale electricity costs in the NEM; and
- > higher gas prices across east coast jurisdictions, increasing the costs for gas-fired generators, contributing to rising wholesale electricity costs. Increasing gas prices may also lead to temporary or permanent retirement of gas-fired generators, leading to a reduction in supply in the NEM and further placing upward pressure on wholesale electricity costs.<sup>5</sup>

By comparison, the transmission component of the electricity price in NSW **decreased** by 3.0% from 2015-16 to 2016-17.

Figure 2 sets out the break-up of the electricity price of a “representative” residential customer in NSW on a market offer by cost component for 2015-16 and 2016-17.

**Figure 2: Electricity price for a NSW “representative” residential customer by supply chain cost components in 2015/16 and 2016/17**



Sources: AEMC, 2016 Residential Electricity Price Trends, final report, 14 December 2016, Sydney

The data in Figure 2 shows that transmission currently makes up 11.7% of the NSW “representative” residential customer electricity price. This has gone down from 13.2% in 2015-16. TransGrid estimates that TransGrid’s transmission network accounts for 10.3% in 2015-16 and 8.9% in 2016-17 of the average NSW “representative” residential customer electricity price<sup>6</sup>.

<sup>5</sup> AEMC 2015, 2015 Residential Electricity Price Trends, Final report, 4 December 2015, version updated 23 February 2017, Sydney. Report, 25 November 2011, Sydney

<sup>6</sup> Transmission charges in NSW also include other network provider charges. This includes Ausgrid, primarily a Distribution Network Service provider (DNSP), but also registered as a Transmission Network provider. Ausgrid’s assets include dual function assets with a voltage 66kV and above, which are owned and operated in parallel with TransGrid’s transmission network.

## 2.4 NSW electricity price trends over the past 5 years

IPART's recent review of the NSW retail electricity market notes that:

“the average annual bills for residential customers in NSW are currently around the same as they were in 2013-14 before prices were deregulated, and are slightly lower in real terms.....this is because the increases in wholesale costs in 2016-17 and 2017-18 have been largely offset by falling network costs and green scheme costs in 2014-15 and 2015-16”.<sup>7</sup>

The AEMC's analysis also points to an increase in the price of electricity in the competitive parts of the sector when looking back over the last five years. The competitive cost components increased by 40% between 2012-13 and 2016-17 in NSW, from 6.74 c/kWh to 9.46 c/kWh.

Similarly, competitive market prices accounted for 42.6% of the total NSW “representative” residential customer price in 2016-17, up from 24.2% in 2012-13.<sup>8</sup>

By comparison, the transmission cost component of the electricity price fell from 3.46 c/kWh in 2012-13 to 2.59 c/kWh in 2016-17 in NSW, representing a decrease of more than 25% over the period.

## 2.5 Expected future electricity prices

Going forward, the AEMC estimates that electricity prices for the average NSW “representative” residential customer will increase by 7.9% between 2016-17 and 2018-19, to reach 23.94 c/kWh<sup>9</sup>.

It expects this increase to be driven by increasing wholesale costs, particularly due to the closure of the Hazelwood power station. For a representative NSW household, power bills are expected to be about \$74 higher in 2018-19 than they would have been if Hazelwood was still operating.

This is consistent with TransGrid's assessment of baseload future prices. Quarterly prices for 2018 baseload contracts increased significantly from June 2016 to June 2017 in all of the main NEM States, including NSW (see Figure 3). They have increased by 53% in NSW (on average).

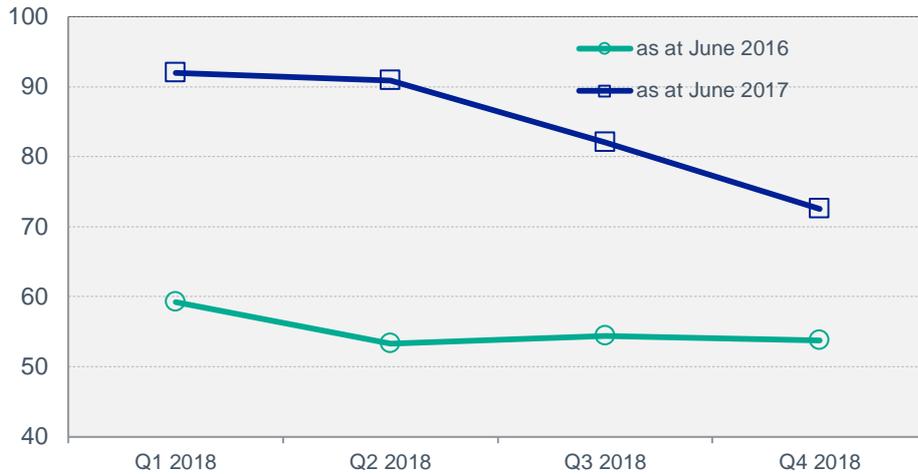
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<sup>7</sup> IPART, Review of the performance and competitiveness of the retail electricity market in NSW From 1 July 2016 to 30 June 2017, Draft Report, October 2017, pp2-3.

<sup>8</sup> AEMC, 2016 Residential Electricity Price Trends, final report, 14 December 2016, Sydney; AEMC, 2013 Residential Electricity Price Trends report, 13 December 2013, Sydney.

<sup>9</sup> Ibid.

**Figure 3: Comparative baseload futures prices for 2018 in NSW (\$/MWh)**

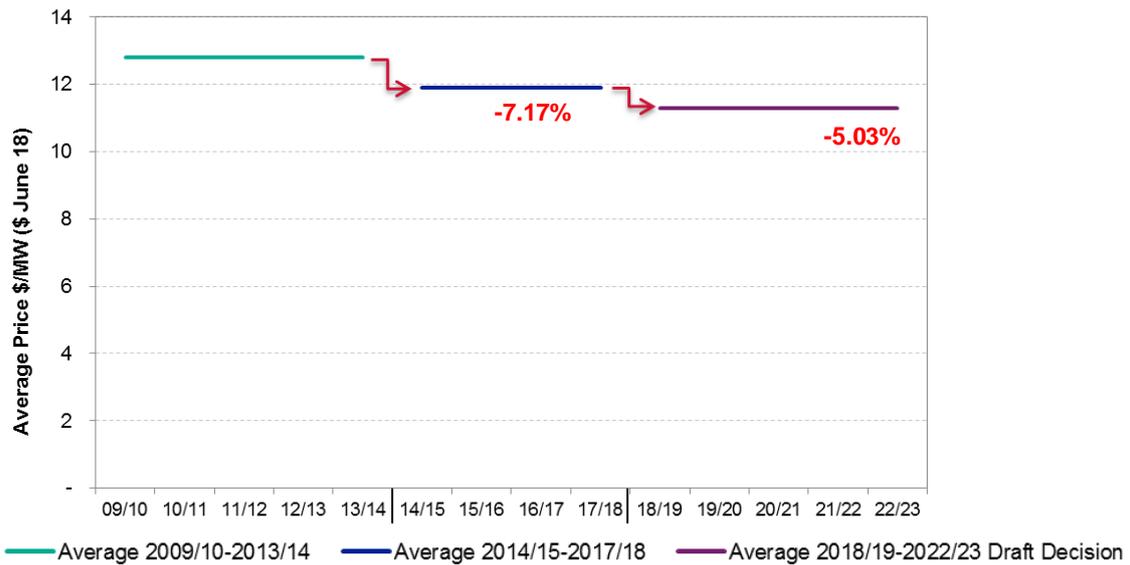


Sources: AER, 'Wholesale markets', Wholesale statistic, found at: <https://www.aer.gov.au/wholesale-markets/wholesale-statistics?ff0>

The AEMC expects the regulated network cost component of total prices to stay relatively constant between 2016-17 and 2018-19, with transmission prices expected to increase at an average annual rate of 0.8% over the two years to June 2019.

The AER’s Draft Decision on TransGrid’s transmission revenue proposal for 2018-23 suggests an average price reduction of 5.0% in real terms over the next regulatory period, as shown in Figure 4. This follows a further fall of 7% in real terms from the previous regulatory period.

**Figure 4: Indicative real price change in TransGrid’s proposed Maximum Allowed Revenue (MAR)**



Source: AER, Draft Decision TransGrid transmission determination 2018 to 2013, Overview, 28 September 2017

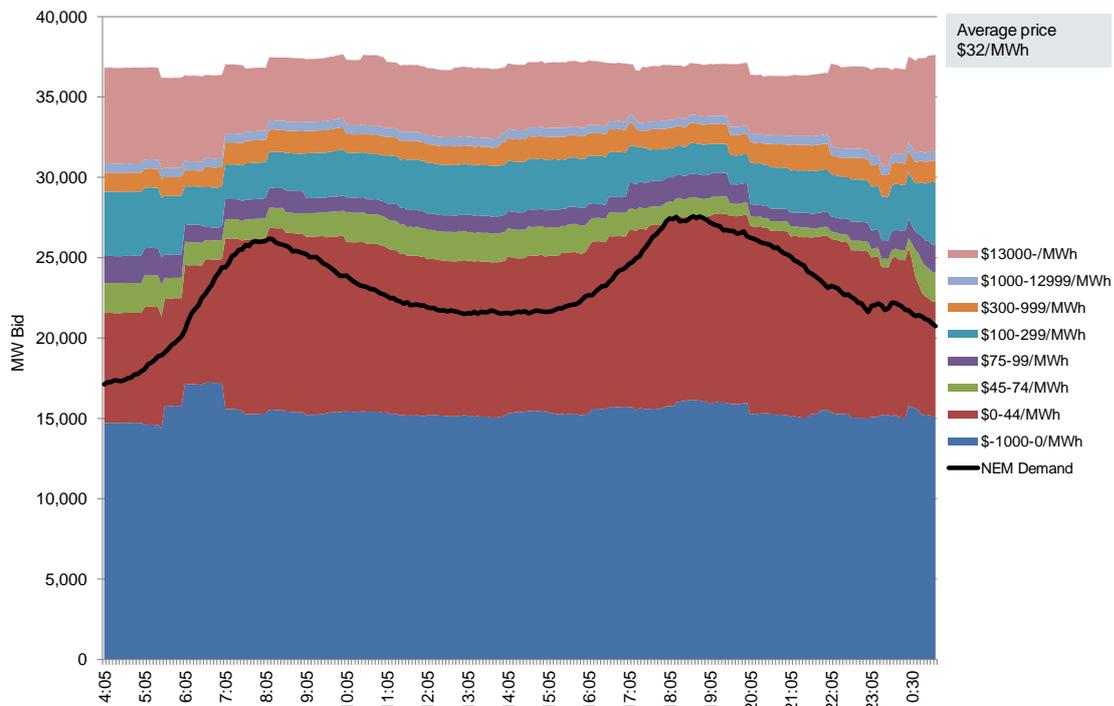
### 3. How is the market functioning?

#### 3.1 Wholesale and retail markets

The ACCC's preliminary report provides details of the recent dramatic increases in wholesale costs. Our analysis also demonstrates that recent electricity wholesale prices throughout the NEM have changed significantly following the closure of Northern Power Station in South Australia and Hazelwood Power Station in Victoria. Following these closures, on a typical daily bid stack in the NEM the market price peaked above \$100/MWh and averaged \$100/MWh for the day – well above estimates of the long-run marginal costs of the majority of generation<sup>10</sup>.

This is illustrated by changes in the typical daily bid stack over this time, as shown in Figures 5 to 7. Figure 5 shows a typical bid stack in the NEM in winter 2015. This is before the closure of either Northern Power Station or Hazelwood Power Station was announced. The market price remained below \$45/MWh, in line with the estimated long-run marginal cost of coal-fired generation, all day.

**Figure 5 – Typical Daily Bid Stack in the NEM in Winter 2015**

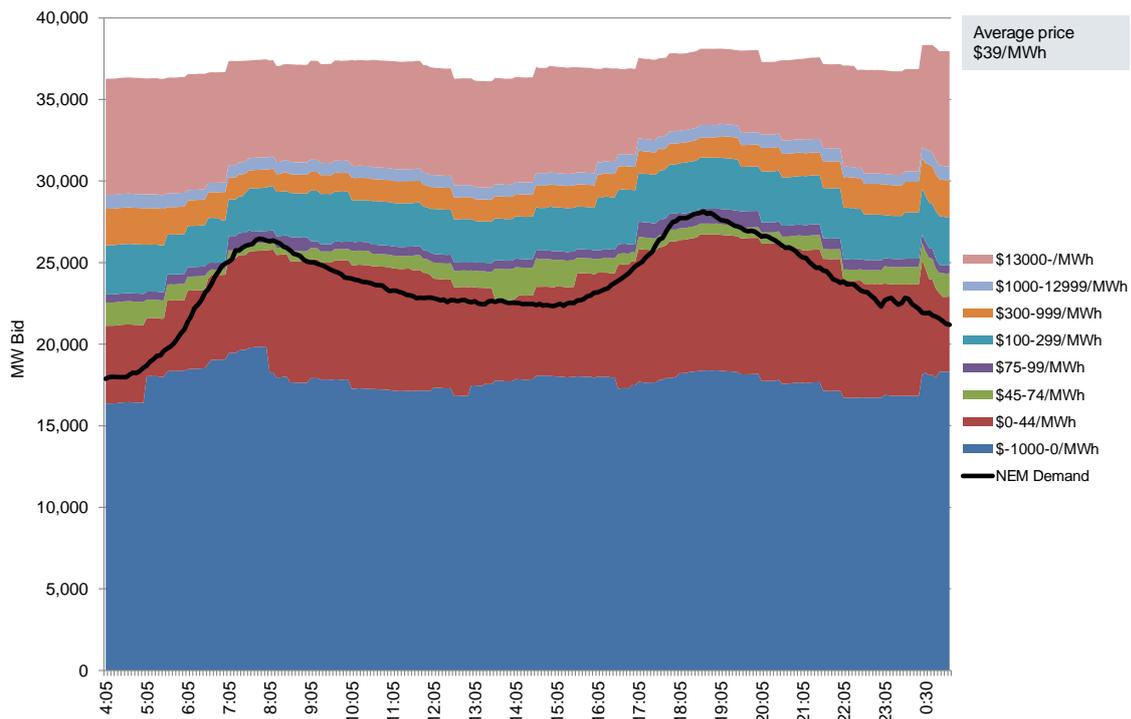


Source: AEMO Electricity Market Management System

Figure 6 shows a typical bid stack in the NEM in winter 2016. This is after the closure of Northern Power Station was announced and the power station was closed. In this bid stack, the market price peaked at up to \$100/MWh during morning and afternoon peaks, due to the dispatch of more expensive generation to meet peak demand, and remained below \$45/MWh at other times.

<sup>10</sup> See Frontier Economics, Estimates of Long-run Marginal Cost (LRMC) of Energy and Cost of LGCs, A Report Prepared for Sydney Desalination Plant, October 2016.

**Figure 6 – Typical Daily Bid Stack in the NEM in Winter 2016**



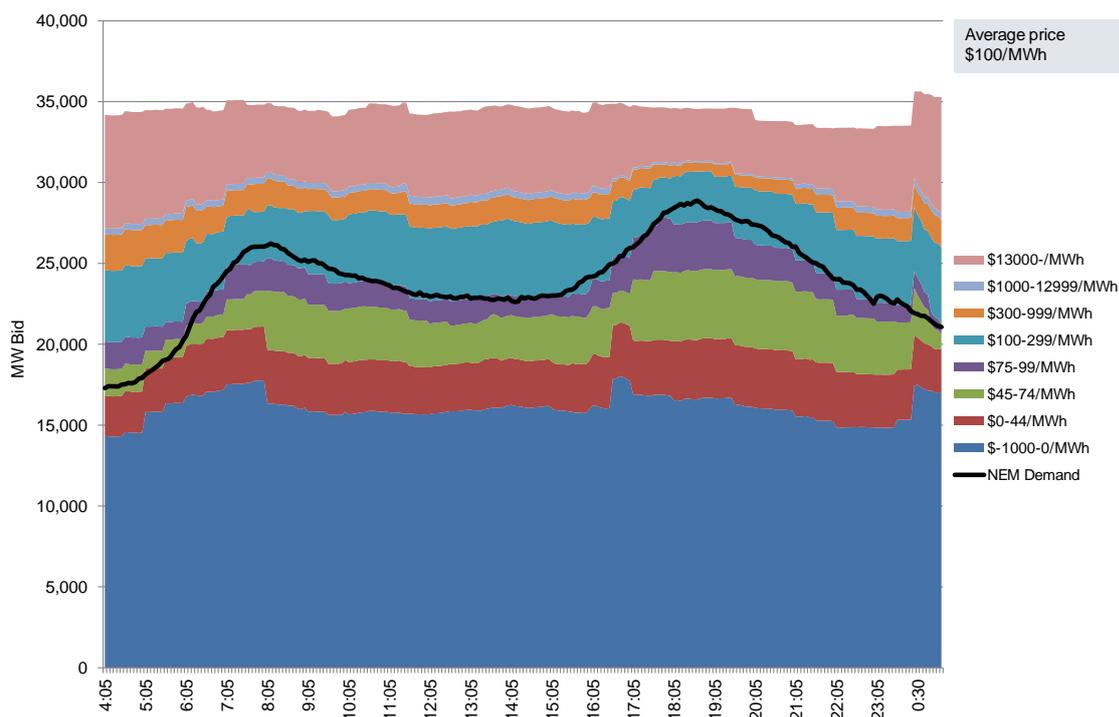
Source: AEMO Electricity Market Management System

A typical bid stack in the NEM in winter 2017 is shown in Figure 7 below. This is after the closure of Hazelwood Power Station.

As well as the closure of 1,600 MW of generation, around 5,000 MW of generation that had bid below \$45/MWh before the closure appeared to change to bid up to \$100/MWh. The market price peaked above \$100/MWh and averaged \$100/MWh for the day - well above the estimated long-run marginal costs of the majority of generation.<sup>11</sup>

<sup>11</sup> Frontier Economics, Estimates of Long-run Marginal Cost (LRMC) of Energy and Cost of LGCs, A Report Prepared for Sydney Desalination Plant, October 2016.

**Figure 7 – Typical Daily Bid Stack in the NEM in Winter 2017**



Source: AEMO Electricity Market Management System

### 3.2 Networks

As discussed in section 1, TransGrid’s real prices are now lower than they were in 1995-96.

The ACCC has identified higher reliability standards in NSW and Queensland from 2009 as a significant driver of network costs. These reliability standards must be met as a condition of electricity transmission and distribution licences. TransGrid recognises that the NSW electricity transmission reliability standards are a key driver of business investment requirements.

IPART reviewed TransGrid’s reliability standards in 2016 and established revised standards based on an economic assessment which aimed to identify the level of reliability that would provide the most value to customers.<sup>12</sup> This assessment took into account both the cost of providing reliability, which is paid for by customers through their electricity prices, and the costs to customers of experiencing outages.

TransGrid’s capital expenditure over the period under review by the ACCC was scrutinised by the AER (and previously the ACCC) as part of the regulatory review process. In addition, TransGrid is required to undertake a regulatory investment test before undertaking significant augmentations (and this requirement was recently extended to proposed replacement expenditure). A closer analysis of TransGrid’s revenue allowance over the 2009-10 to 2013-14 period shows that it was substantially driven by an increase in the regulated weighted average cost of capital (WACC), reflecting higher risk premiums and the costs of financing in the period following the global financial crisis. We note that the regulated WACC has declined substantially since that time.

<sup>12</sup> IPART, Electricity Transmission Reliability Standards, an Economic Assessment, Final Report, August 2016.

TransGrid supports further consideration of alternative regulatory approaches to assess whether they may offer a better balance of incentives for capital versus operating expenditure (for example, the total expenditure framework used in the United Kingdom). We are concerned that the current regulatory framework does not provide adequate recognition of the risks involved in operating expenditure. For example, recent changes to the National Electricity Rules gave transmission businesses an obligation to maintain a minimum level of inertia and system strength, which may be procured through third parties. These obligations expose TransGrid to risk without any compensating margin or return for taking that risk.

## 4. Where to from here?

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TransGrid believes the ACCC's focus should be on establishing the market and regulatory frameworks which encourage efficiency across the full supply chain. Providing a framework for competition where it is feasible and effective, and stable incentive-based regulation in the natural monopoly parts of the sector is the best basis for encouraging efficient investment and pricing in the market, for the long term benefit of customers.

### 4.1 Boosting competition in generation and retail markets

TransGrid supports the ACCC's conclusion that "effective competition is essential to improving affordability".<sup>13</sup> We welcome scrutiny of the effectiveness of competitive pressures in the generation and retail sectors. As a regulated business, TransGrid has been subject to intense scrutiny of its performance over an extended period of time.

The ACCC has outlined a range of measures to increase competition. We support consideration of measures which will improve the effectiveness of competition in the generation and retail sectors, to drive efficiency gains and to ensure that customer needs and preferences are central to the operation of the NEM.

In addition to the potential measures outlined by the ACCC, we also note that transmission has an important role in increasing competition in the wholesale market, through interconnection between regions and through providing a platform for new generators to effectively supply the market. The ACCC notes the role of large scale renewable energy projects in the future – the effectiveness of these projects in increasing competition in the wholesale market will depend on their access to the interconnected market via the transmission network.

The ACCC also recognises that measures brought in to address one set of issues in the retail sector have sometimes led to unintended consequences, to the detriment of electricity users. TransGrid agrees with this assessment and notes that such unintended consequences can also flow from policy decisions in the regulated network sector, to the long term detriment of electricity customers. Policies which undermine the predictability and stability of network regulation, such as removal of the limited merits review or potential asset write-downs, are examples of such policies as discussed further below.

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<sup>13</sup> ACCC, Retail Electricity Pricing Inquiry, Preliminary Report, 22 September 2017, p151.

## 4.2 Lowering network costs

The ACCC discusses a number of potential options to reduce network costs into the future, including:

- > Abolishing the limited merits review; and
- > Consideration of asset write-downs.

We consider these options further below, together with a discussion of the importance of efficient investment in the transmission network (or non-network alternatives) in the future.

### 4.2.1 Abolition of limited merits review

The ACCC notes that it supports the recent removal of the limited merits review (LMR), and “considers that the removal of this avenue of appeal of the AER’s decisions will help ensure network pricing is moderated in the future”.<sup>14</sup> TransGrid disagrees with this view. In the current environment of frequent broad-ranging Rule changes, the LMR would operate to clarify any uncertainty regarding the interpretation of new Rules or concepts.

We consider the removal of LMR, without commensurate improvements in the overall checks and balances in the energy market, may create serious unintended consequences for stakeholders. These could include:

- > higher prices for consumers (contrary to the view held by the ACCC);
- > less certainty for Australian and international investors; and
- > a greater use of cumbersome and expensive judicial reviews by stakeholders impacted by the Australian Energy Regulator’s decisions.

The limited merits review regime provided greater certainty and predictability for investors and consumers who are impacted by the AER’s decisions. It also acted as a check and balance mechanism to ensure the AER was held accountable for its decisions. As a consequence its removal is likely to increase the required rate of return for investors in network services, which places upward pressure on prices.

TransGrid’s views and supporting arguments are set out in more detail in its submissions relating to the abolition of the LMR.<sup>15</sup>

### 4.2.2 Writing down asset values

The ACCC raises the prospect of potential asset write-downs “where it can be determined that over-investment has occurred or where assets become stranded”.<sup>16</sup>

TransGrid strongly objects to suggestions that its regulatory asset base could be retrospectively written down. As noted by the Finkel Review in relation to network assets, “compulsory write-downs are problematic. Writing down the asset values would increase

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<sup>14</sup> Ibid, p153.

<sup>15</sup> TransGrid’s most recent submission was to the Senate Committee reviewing the abolition of the LMR. See [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Environment\\_and\\_Communications/LimitedMerits\\_Review/Submissions](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/LimitedMerits_Review/Submissions)

<sup>16</sup> ACCC, Retail Electricity Pricing Inquiry, Preliminary Report, 22 September 2017, p153.

creditors' perceptions of risk, resulting in a higher Weighted Average Cost of Capital for future projects or refinancing, leading to potentially higher costs for consumers over all".<sup>17</sup>

A cornerstone of good regulatory practice is that businesses and their owners operate within a stable, predictable regulatory framework. Investors in network infrastructure make large investments which are recovered over a long period of time. Changes to the regulatory structure which make fundamental retrospective changes to the framework for investment in infrastructure create uncertainty and increase risk, which has implications for the future availability and cost of capital for the industry. This is particularly so for utility investments, which attract investors based on their assumed profile of being long-life and relatively low risk, with commensurate stable and relatively lower returns.

Investing in the network necessarily involves looking into an uncertain future. Some investments could be undertaken which, with the benefit of hindsight, may not be optimal. The sharing of the risk of asset stranding is established by the regulatory framework within which investments are made. TransGrid would be happy to contribute to discussions about potential changes to the sharing of asset stranding risk (and commensurate changes to the regulated rate of return) on a forward-looking basis.

### 4.2.3 Efficient network planning and investment

Looking forward, TransGrid's capital expenditure continues to undergo rigorous review by the AER as part of its revenue determinations. As part of its assessment of future investment options, TransGrid also considers the potential for non-network alternatives, including demand management and battery storage.

TransGrid notes that a failure to undertake necessary capital expenditure risks loss of load which imposes costs on customers. Under-investment in transmission will not lead to optimal outcomes for customers in terms of providing reliable electricity at minimum efficient cost. Over the coming regulatory period TransGrid is concerned that the AER's draft decision increases the risk of substantial costly outages in the inner Sydney area, where the cost of lost load is particularly high given its role as a major economic centre.

The Finkel review recognised the importance of planning the transmission network to support a reliable electricity supply in the transition to a lower carbon electricity sector. The review proposed the development of a NEM-wide integrated grid plan to inform future investment decisions, together with potential priority projects to enable efficient development of renewable energy zones across the NEM.<sup>18</sup> Coordinated network planning also plays a central role in promoting the lowest cost of system-wide investment for the long term interests of consumers, including the effective coordination of generation and transmission investment.

TransGrid is actively involved in the development of an integrated energy plan, in cooperation with AEMO and other transmission network service providers. We are also assessing the most cost-effective locations for the potential development of renewable energy hubs. TransGrid anticipates that renewable energy zones will provide cost effective solutions for the future development of the transmission network, whilst also providing the basis for increased competition in the wholesale market, in the long-term interests of consumers.

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<sup>17</sup> Dr Alan Finkel AO, Independent Review into the Future Security of the National Electricity Market, Blueprint for the Future, June 2017, p136.

<sup>18</sup> Ibid, p5.