

Queensland Productivity Commission  
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## PACIFIC ALUMINIUM

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*This submission is not confidential in any way.*

16 November 2015

Dear Commissioner,

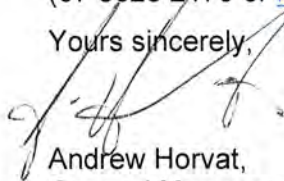
Pacific Aluminium welcomes the opportunity to make a submission to the Queensland Productivity Commission as part of the Public Inquiry into Electricity Pricing in Queensland (Issues Paper, October 2015).

Pacific Aluminium owns 59 per cent of Boyne Smelters Ltd (BSL) and 42 per cent of the Gladstone Power Station (GPS). These two assets hold a unique position in the Queensland electricity sector for two reasons—GPS is the largest power station in Queensland (1680MW) with approximately 13 per cent of the state's capacity and BSL is Queensland's largest single power consumer (~970MW). BSL is a key contributor to the Gladstone region and the state. BSL has continued to invest in the smelter over the past 30 years, most recently completing a refurbishment at a cost of more than A\$720 million in 2012, including construction of a new bake furnace, the replacement of overhead cranes and improvements to the alumina transport system. This investment extends the technical life of the smelter, improves environmental and greenhouse performance and increases operational efficiency. As Australia's largest aluminium smelter, BSL contributes more than \$1.4 billion to the nation's GDP, more than half of which is Gross Regional Product (GRP) in the Gladstone area. The smelter directly employs around 1,000 people and helps create a further 6,700 jobs across other sectors of the Australian economy. Additionally, BSL contributes more than \$150 million each year to the local economy through salaries and spends a further \$100 million on local goods and services<sup>1</sup>.

The Terms of Reference for the Public Inquiry notes two of its key objectives as reaching: "a competitive electricity market" and "productivity growth among energy users", both of which Pacific Aluminium supports. However, while recent inquiries in other jurisdictions have focused on transmission and distribution costs, Pacific Aluminium believes there is a core issue in the Queensland generation market which remains unresolved and which is already having material flow on impacts for the state's manufacturing sector and industry as a whole. In particular, the 50 per cent increase in wholesale prices in Queensland over the past 12 months flows directly through to all customers, both domestic and industrial. As a result of these significant price increases, BSL has been unable to secure an affordable fixed price power arrangement for up to 185MW of its electricity load (which is Queensland's largest single contestable load) which directly impacts its productivity growth initiatives. At the same time, a 350MW generating unit remains idle at the Tarong power station and has done since 2012.

In responding to this Electricity Pricing Inquiry, our submission has focussed only on questions which are relevant to BSL as a major wholesale industrial customer. If you have any questions regarding this submission, please contact Manager External Relations, Marghanita Johnson (07 3028 2179 or [marghanita.johnson@pacificaluminium.com.au](mailto:marghanita.johnson@pacificaluminium.com.au)).

Yours sincerely,



Andrew Horvat,  
General Manager, Energy

<sup>1</sup> Boyne Smelters 2011-2014 Sustainability Report, available from <http://www.boynesmelts.com.au/>

## ***Response to Issues Paper Questions***

### ***2.1 Are there changes to the structure of the electricity supply chain and its regulation that might improve the efficient delivery of a reliable supply of electricity to customers?***

As the state's largest wholesale electricity user, and with an interest in Queensland's largest power station, the supply chain to BSL includes the transmission network and the power generators. Given the generation sector operates within a market structure whereas transmission is a regulated monopoly service, Pacific Aluminium supports maintaining the status quo separation between these two segments of the industry.

BSL is not a retail customer and does not use the distribution network. Pacific Aluminium would not support any measures which resulted in the costs of providing these services being passed onto customers who do not use them.

### ***2.2 What are the key areas for productivity improvement across the electricity sector, and how could these influence Queensland's overall economic productivity?***

As the 50 per cent increase in wholesale prices over the past 12 months impacts all customers, including domestic and industrial, this is already having material flow-on impacts for the state's manufacturing sector and industry as a whole. As a result of these significant price increases, BSL has been unable to secure an affordable fixed price power arrangement for up to 185MW of its electricity load (which is Queensland's largest single contestable load) and has had to curb plans for electricity-based productivity growth initiatives.

### ***2.3 What are the potential benefits and risks in the Queensland Government's renewable energy plans, including solar targets, for electricity sector productivity and electricity prices in the longer term?***

Pacific Aluminium believes state government-level renewable energy plans, including targets, should not result in any increase in costs to industry, either directly through charges or indirectly through increased administration costs. Climate policy, including renewables, is most effectively addressed at a national level, requiring policy development and legislative implementation by the federal government. Given the current Renewable Energy Target continues until 2030, Pacific Aluminium does not believe there is any case for state level intervention in the Queensland electricity sector which would result in higher cost imposition on consumers.

### ***2.4 What objectives do these plans and targets best support, and are there alternative levers or methods that might be considered?***

Pacific Aluminium does not support additional state government measures beyond federal government policy.

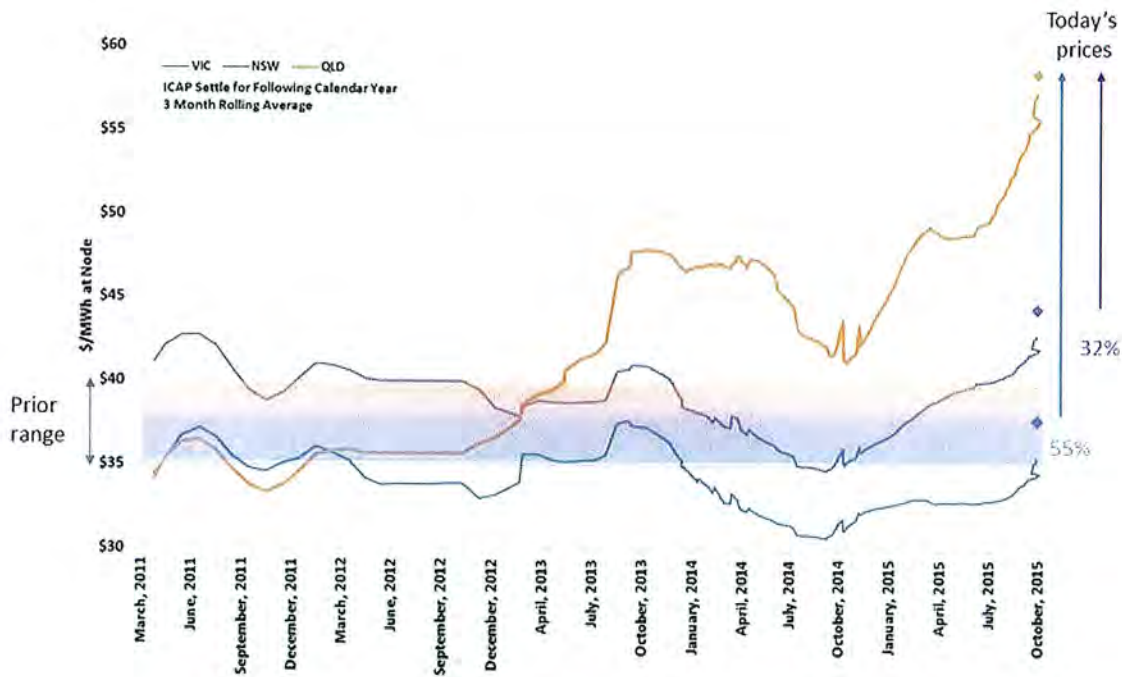
### ***2.5 What factors are influencing higher wholesale prices in Queensland and do these represent systemic or transient market issues?***

Pacific Aluminium believes these issues are systemic. In the past two years, prices in the Queensland electricity market have substantially diverged from those in New South Wales and Victoria (Figure 1). It is difficult to rationalise why, in a competitive market, the cost of electricity in Queensland should be so much higher than in NSW or Victoria, particularly when Queensland currently has a substantial amount of underutilised generation capacity, is a net exporter of electricity to NSW and the marginal cost of generation at most coal fired power stations in Queensland is substantially below the levels shown for contracts being struck.

The public case for the higher wholesale electricity prices, have been made based on the projected 1000 MW increased demand in Queensland due to the LNG projects over the coming years. However, when this LNG demand increase, which is yet to be realised, is compared to the increase in solar generation at 20MW per month<sup>2</sup> and the existing generation capacity currently idled, the higher prices are not justified.

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<sup>2</sup> Powerlink Queensland, Transmission Annual Planning Report, 2015



**Figure 1. ICAP<sup>3</sup> Forwards Following Calendar Year (3 month rolling average)**

However there have been some structural changes in the Queensland electricity market that have coincided with the higher prices.

1) Restructure of Queensland government-owned generators

On 1 July 2011, the three Queensland government-owned generators were restructured into two. Figure 1 shows, prior to that date, wholesale electricity contracts in Queensland were the lowest.

2) Reduced competition from gas

Rising gas prices due to competing demand from LNG projects has reduced competition from gas-fired generation, including Origin Energy's decision to operate its 630 MW base load CCGT, built at Darling Downs in 2010, in peaking mode and Stanwell's decision to close down the 385 MW Swanbank E, for 3 years.

3) Coal-fired generation being withheld from the market

Stanwell mothballed 700 MW of capacity at Tarong power station in 2012. One unit is still to be returned to service, which Stanwell anticipates in 2016 "subject to market conditions"<sup>4</sup>, which implies Queensland market conditions do not yet provide the necessary incentive to return the unit to service.

4) Late rebidding

The AEMC has identified that "late bidding" practices in Queensland, designed to increase prices by withdrawing generation capacity at late notice, thus preventing others from responding. This behaviour is contrary to what would be expected in a competitive market, where parties with ample capacity would increase supply to compete for market share, and appears to have resulted in high spot price spikes in Queensland. The price of electricity hedge contracts is significantly influenced by current and expected electricity spot prices and Pacific Aluminium is concerned that late bidding practices are likely to have contributed to the high increase in Queensland electricity hedge

<sup>3</sup> ICAP is a markets operating and provider of post trade information services.

<sup>4</sup> Stanwell website: <http://www.stanwell.com/news/tarong-power-station-return-generating-units-service/>

contract prices. The estimated impact on the value of electricity forward contracts in 2015 alone is as high as \$400m<sup>5</sup>.

The AEMC has proposed a Rule Change related to “bidding in good faith”, which is intended to eliminate such behaviour, Pacific Aluminium supports the Rule Change, though is concerned generators may find a way around the new Rule by arguing that their decisions to change offers are not confirmed until the last minute. Hence, this systemic behaviour could continue to result in higher spot volatility and wholesale contract prices than would otherwise have occurred.

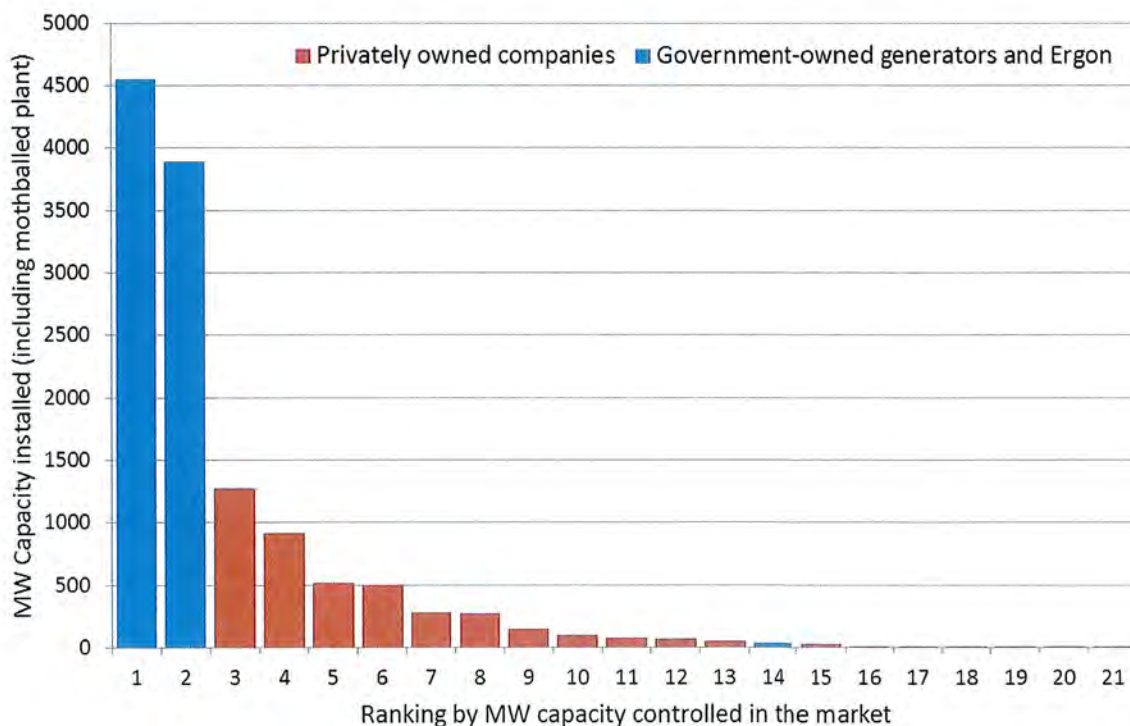
Pacific Aluminium considers late bidding opportunities are more likely to exist where generators have significant market power and there is little risk of intervention through regulation. Pacific Aluminium suggests the Public Inquiry should consider whether Queensland government-owned generators have market power and whether the governance arrangements (including the proposed Rule Change) are sufficient to ensure any such market power cannot be used to drive increased profits for generators to the detriment of electricity consumers.

### *2.6 Are there any issues associated with the existing level of competition in Queensland's electricity generation sector, and what are the potential impacts on the wholesale electricity market?*

Pacific Aluminium has experience dealing successfully with electricity suppliers in monopoly, oligopoly and multiple-party competitive markets and believes efficient outcomes can be achieved in all cases, provided the governance arrangements are appropriate to the market context.

The National Electricity Market Rules apply in Queensland, however Queensland's starkly higher fixed price wholesale electricity contract prices indicate the Queensland electricity market is distinct and not functioning as part of a national market.

The Issues Paper notes, in Queensland, the two government-owned generators own or control 65 per cent of generation and the rest is privately owned or controlled. The two government-owned generators dominate the control of generating capacity in the Queensland electricity market (Figure 2).



<sup>5</sup> ERM Power's submission to the AEMC dated 12 February 2015.

<http://www.aemc.gov.au/getattachment/e458ffa5-28eb-4548-a2a5-9490fff896e2/ERM-Power.aspx>

## **Figure 2. Company control of generation ranked by MW capacity (Source: AEMO)**

The Herfindahl-Hirshman Index (HHI) gives a measure of market concentration, with an HHI over 1,800 indicating a highly concentrated market. Based on generation capacity, the HHI for Queensland is 2,440. This indicates the government-owned generators could have significant market power in Queensland which could be detrimental to the long-term benefit of electricity consumers without the right governance framework to limit the potential abuse of market power.

Pacific Aluminium suggests the Public Inquiry should consider what governance arrangements are appropriate to ensure generators in a highly concentrated electricity market do not abuse market power to increase their profits to the detriment of electricity consumers.

### *2.7 What are the potential benefits and risks associated with structural reform of CS Energy and Stanwell in terms of supply chain productivity and electricity pricing?*

As discussed in the response to 2.6 above, Pacific Aluminium has experience dealing with electricity suppliers in monopoly, oligopoly and multiple-party competitive markets and believes efficient outcomes can be achieved in all cases, provided the governance arrangements are appropriate to the market context.

A merger of CS Energy and Stanwell would increase the HHI (a measure of market concentration) from 2,440 (already highly concentrated) to 4,716. Without appropriate governance arrangements to remove the risk of this new entity exercising market power, the merger could be seriously detrimental to electricity consumers in Queensland. Since the restructure of state-owned generators in 2011 from three entities to two, Queensland has gone from one of the cheapest to the most expensive states for wholesale electricity contracts and is now 30 to 60 per cent higher than NSW and Victoria respectively. This puts pressure on Queensland industry and reduces the attractiveness of the state as a place to invest. It may also deter investment in new generation by the private sector.

Pacific Aluminium suggests the Public Inquiry should consider what checks and balances would need to be put in place to ensure a large and dominant generator in Queensland acts in the best interests of electricity consumers to restore competitive electricity pricing to Queensland and does not deter private sector investment.

### *2.8 What options are there to mitigate competition impacts associated with merging CS Energy and Stanwell, and maintain downward pressure on electricity pricing?*

Pacific Aluminium believes the right options to mitigate the competition aspects associated with merging CS Energy and Stanwell are those which drive behaviour normally expected of a competitive market. That is, minimising the cost of electricity generated to drive down prices for the benefit of consumers.

### *2.13 What is the role of economic regulation of networks in the face of increasing competition from non-network services and products?*

The role of electricity network regulation is to protect consumers from the natural monopoly characteristics of network businesses. As new technologies, such as solar PV and storage batteries disrupt the natural monopoly characteristics of the grid for some customers, not all customers will have access to viable commercial alternatives to grid-based power. Some large industrial users such as aluminium smelters will fall into this category. The role of economic regulation will be to ensure those consumers pay a fair and reasonable price for network services and are not required to pay for stranded or under-utilised assets.

### *2.15 What are the potential benefits and risks associated with structural reform of Powerlink, Energex and Ergon Energy in terms of electricity pricing and supply chain productivity?*

Merging transmission and distribution companies may not yield as much benefit as merging two distribution companies, given the differences between their businesses. For a consumer like BSL which does not use distribution network services, the main concern is to ensure there are no cross-subsidies between transmission and distribution.

*2.16 What are the barriers to improving consumer interest and participation in the electricity market?*

For BSL, the potential volatility of the spot market, and hence the risk to cash flow of participating directly, is discouraging as it exposes the business to the behaviour (such as 'late bidding' currently under review by the AEMC) of highly experienced and well-resourced generation companies whose core business is to trade in the electricity market.

*2.19 What are the implications of uncertainty over climate change policy on productivity in the generation sector and electricity prices?*

To minimise uncertainty, Pacific Aluminium recognises the benefits of bipartisan agreement on federal policy on climate change, including Renewable Energy Targets. Pacific Aluminium does not support additional state government measures beyond federal policy.

*2.20 What would be a better alternative for funding the Solar Bonus Scheme?*

Pacific Aluminium does not support additional state measures beyond federal policy.