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5 November 2012

Attention: Simon Bartlett
Chief Operating Officer
Powerlink
Submitted by email
Email: networkassessments@powerlink.com.au

Dear Mr Bartlett

Project Specification Consultation Report
Potential Future Upgrades to Queensland/NSW Interconnector

Thank you for your letter of 22 June 2012 requesting comments in relation to the Project Specification Consultation Report (PSCR) regarding potential future upgrades of the Queensland/NSW Interconnector (QNI).

CS Energy is concerned that preliminary market modelling indicated an "identified need" for upgrades of the QNI, requiring a Regulatory Investment Test – Transmission (RIT-T) to be undertaken. The PSCR explained that the identified need was based on the 2010 National Transmission Development Plan (NTNDP) demand forecast, which is based on Powerlink forecasts from the Annual Planning Report (APR). In the 2010 APR, Powerlink was forecasting a 10 per cent Probability of Exceedance (POE) 2010/11 demand at 9,379 mega watts (MW), 50 per cent POE at 8,924MW and 90 per cent POE at 8,642MW. Demand was 8,109MW in 2010-11 (with this number taken from the 2011 APR). Based on this information, we conclude there is no "identified need" to justify commencing this process.

The development of interconnectors should only occur where there is incentive for private investment in generation. If either region's prices are or forecast to be below new entrant levels there is no scope for an interconnector to enter into the market – it is a regulatory intrusion on a competitive market. Market conditions in both New South Wales and Queensland, with diminishing demand and low wholesale prices do not support new entrants in generation, and accordingly no investment in interconnection.

In any case CS Energy strongly supports competitive outcomes, such as merchant transmission or generator investment, and considers the RIT-T as a last resort where competitive outcomes are not forthcoming or achievable.

The building of an inefficient interconnector is regulated network displacing private investment, having negative effects on competition and reliability.

Please find attached further detailed comments on the process and the PSCR.

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Yours sincerely

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Enclosed: ***Particular comments on the PSCR***

Particular comments on the PSCR

Direct regulation is inferior to competition in providing efficient outcomes. This has been shown to be the case in the NEM, with wholesale costs being reduced due to competition but network costs escalating under direct regulation of monopolies.

This is important as the direct regulated networks are a substitute for generators. This substitution can affect the efficiency of the competitive market. The RIT-T aims to do this by ignoring "general equilibrium[1]" benefits and through being "competitively neutral". There have been statements made by AGL to the Productively Commission that the RIT-T is not competitively neutral in that it overvalues the benefit of an interconnector by not accounting for market risk[2]. CS Energy agrees with this statement, especially as it can include avoided costs for reserve capacity when generators receive no such payments for reserve capacity in the NEM.

Under static assumptions

Upgrades are at first appealing given a higher spot price in one region when compared to another, with the expectation that the higher price will be reduced. However the price in the exporting region must be considered. As the price differential won't be maintained across an upgraded interconnector, the higher priced region will be depressed but the lower priced (exporting) region will increase. It is important that policy makers realise that the price in the exporting region after the upgrade will be set by generators higher up the supply curve and the importing region lower down the supply curve. The differences between the two previous regions' supply curves and the point on the new supply curve for the merged region will have to be greater than the cost of the interconnector upgrade itself.

Under these static assumptions, the difference in supply costs in each region has to be significant. It cannot be assumed that the interconnector will offset any investment in existing generation (as these costs are sunk). Such differences have not been evident in the NEM since inception across the major interconnections.

Under dynamic assumptions

Under dynamic conditions, increasing the transfer capacity is coupled with investment in generators within the exporting region to serve incremental demand in the importing region. The decision to improve the transfer capacity will be based on an assumption that it is economic to build new generation in the exporting region and invest in the interconnector, rather than solely invest in generators in the importing region. Under this circumstance, the hurdle for the generator investment in the exporting region is the additional cost of the interconnector upgrade. The interconnector upgrade costs must be less than the investment cost in the different regions.

A way of easing the investment hurdle would be to assume persistent oversupply in one region. Under this assumption the exporting generators may be assumed to be sunk and therefore the interconnector upgrade only competes with the investment cost of an importing region's generator. Under this scenario the importing region's long run costs of investing in a generator would be compared with the exporting region's short-run costs (fuel) and the interconnector cost. CS Energy considers even this favourable

[1] General equilibrium theory is a branch of theoretical economics. It seeks to explain the behaviour of supply, demand, and prices in a whole economy – whereas Partial Equilibrium takes into consideration only a part of the economy

[2] Cook T (2004) "A review of the benefits of regulated network services" http://www.ipa.org.au/library/Energy31.pdf

consideration will often fail the test given the high costs of transmission compared to generation units. It would also be imprudent to assume a persistent oversupply in one region, which would lead one to discount the potential benefits of any upgrade.

Conversely a way for this investment to pass the test would be if there were extremely bullish assumptions on demand growth, thus bringing forward investment costs of generation to supply the incremental demand. Given the existing uncertainty over future electricity demand and poor investment environment for generation, CS Energy considers there to be little in the way of benefits to be captured in the RIT-T.

Changes in costs of incremental investment due to deferral of capital costs

The RIT-T needs to consider only real capacity that must rely on NEM spot revenue to be paid, rather than capacity required under the reliability standards as specified in the Electricity Statement of Opportunities. We suspect RIT-T planners can claim savings in operational costs and deferral of capital costs when modelled prices are below new entrant costs. The RIT-T should avoid claiming credit for investments that would not be made anyway.

In addition, CS Energy doubts whether the RIT-T should claim the full value of any deferral of generation capacity because it may lead to extra regional transmission costs due to the possibility of it displacing generation investment in the importing region. For example, a generator remote to the interconnector may close or not connect, leading to a breach of regional reliability standards. The RIT-T should not ignore regional upgrades.

Generator fuel costs in dispatch

The PSCR premises generator fuel cost differentials are achieved with non-coincident peak demands. It suggests the difference may be between peaking and base load capacity across the two regions. CS Energy generally considers the difference in costs to be marginal between the regions and certainly the difference would be differences in mid merit, lower cost peaking versus high cost peaking fuel costs.

There is uncertainty over fuel costs which diminishes confidence in the results of the RIT-T. Expectations of commodity prices, set by international market prices (through LNG and the Central QLD and Hunter Valley export coal systems), must be heavily discounted. Powerlink should consider whether there will be any difference in fuel costs and prices if marginal generators are pricing on opportunity cost of selling gas or coal back into the international markets.

The uncertainty of carbon pricing should also discount any major benefits from differences in fuel costs of gas and coal plant.

Similarly to the deferral of capital costs, we suspect RIT-T planners can claim savings in operational costs when modelled prices are below new entrant costs. The RIT-T should avoid claiming credit for operational savings achieved through investments that would be unprofitable.

Changes in network losses

CS Energy has some concerns that losses are already reflected in the energy price, be it the regional reference price (RRP) or the difference between the RRPs in the two regions. With these being marginal losses, the loss incurred serving the very last incremental MW

of demand, they are higher than actual or average losses, which are roughly half marginal loss factors.

These costs have already been included in the differences in generator fuel costs in dispatch, reflected in market prices.

If changes in average losses are then included in the business case, which would normally be a reduction in losses per MW of rating (due to economies of scale, higher voltages and lower loading), then the RIT-T may be double dipping the benefit in losses.

Competition benefits

For competition benefits, the modeller running the RIT-T must assume offer prices of competing generators. It is easy to derive results by flexing assumptions. Accordingly, CS Energy questions competition benefits in the RIT-T.

If competition benefits are included in the RIT-T, CS Energy believes these should be specified separately and all assumptions disclosed publically. CS Energy notes Powerlink does not intend to do this.

In addition, CS Energy questions whether the full competition benefits should be claimed across the interconnector upgrade. Competition benefits arise when a new generator enters. Therefore competition benefits need to be less any notional benefit from another merchant generator locating in the importing region.

Assumptions in cost

The previous upgrade study[3] estimated capital costs of transmission to be in the range of +/-25 per cent. CS Energy recommends Transgrid and Powerlink provide an estimate of the range in capital costs. If capital costs remain as uncertain as in the previous study we question, given the other uncertainties highlighted above, the reliability of the results of the RIT-T.

[3] FINAL REPORT – QUEENSLAND/NEW SOUTH WALES INTERCONNECTOR UPGRADE (24 July 2008)