

To Whom it may Concern,

Please see below my submission to the COGATI proposed access model.

Introduction

I am Dr. Jeremy Harris, Director of LocoParentis Pty Ltd, a new consultancy operating in the energy space in Australia and South East Asia. I have over 20 years in the oil and energy markets having traded oil and freight in London, planned and managed fuel supply chains in Australia, and planned refinery operations in multiple countries. Recently I have expanded into renewables, consulting to several companies in the electricity space. I come to this reform with fresh eyes and an external perspective devoid of the historical baggage.

I attended the AEMC workshop on October 18th and have met with AEMC personnel to ensure I fully understood the base problem and proposed solution.

The Problem.

As you outline in section 2: The Need for Change, there has been a mismatch between the financial commitment to building generating capacity, and the financial commitment to building transmission capacity to support this additional generating capacity.

The two worlds operate in a parallel universe with very little co-ordinated interaction, which has left us with significant areas of generation being unable to fully deliver power into the NEM. i.e. the Rhombus of Regret in Victoria and other renewable generators. This leads to sub-optimal cost to supply electricity into the NEM.

This has materialised over time through the deliberate legislated segregation of transmission utilities and generation companies and was designed at a time where most generation was point source and demand was distributed. I understand that this legislative situation is to be maintained, so we need to identify ways to more closely align future financial commitment for transmission with generation in a world where both generation and demand are increasingly diffuse and the requirements of the transmission network is significantly different.

The Proposed Solution

The proposed solution is to

- 1) Move to a dynamic regional pricing (which reflects pricing behind constrained transmission lines)
- 2) Introduce Financial transmission rights (FTR's) to financially "overcome" the lack of capacity on the transmission line. These will be sold at auction to the highest bidder.

Generators can purchase the FTR's in order to "Guarantee" the earnings on their generator.

However, in short, none of the money associated with the FTR's goes to the transmission utilities in a way that directly facilitates the building of additional transmission capacity.

This solution materially fails to strengthen the link between the transmission utilities and generators and does not solve the overall problem. Any decision to increase transmission capacity remains in the hands of the regulators and not the market and is non-binding.

My observation, with fresh eyes, is that this regulated process of decision making for building/upgrading transmission:

- a) Focuses on the cost/benefit of upgrading **existing** transmission
- b) Has difficulty evaluating entirely new transmission lines
- c) Does not appropriately include the cost benefit to the NEM of any generation, existing & planned, connected to the transmission line.
- d) Is non-binding on the transmission companies.

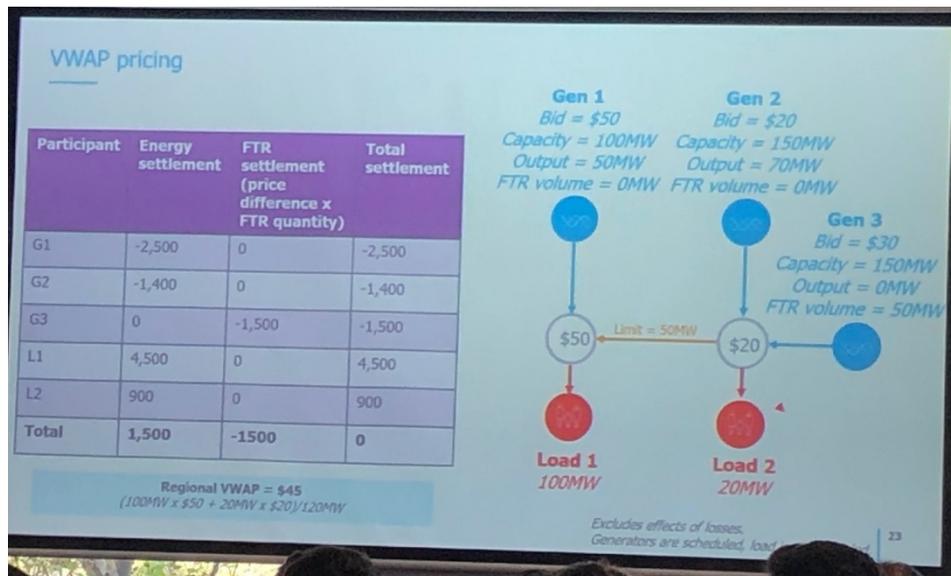
I appreciate that the previous stage of the COGATI review concluded that “transmission planning and investment would continue to be conducted using the current regulated process, including the ISP”. However, my observation is that this process has materially failed in the past, hence we are in the situation we are in today and is likely to fail again in the future.

I now strongly believe the market does not know what it needs, or is protecting vested interests, and there needs to be stronger direct market linkage between future transmission and generation investment.

Long Term Value Destruction

I would like to point out that I see potential value destruction in the current configuration of the FTR’s which will be negatively impacted by any decisions for transmission spending.

If I utilise the example that was discussed in the workshop (see photo below)



It was explained that Gen 3 could purchase FTR’s for 50MW in order to guarantee access to generating capacity and that the FTR’s would be sold at auction and could potentially purchased on a secondary market.

Logically, the value of these FTR's would depend on the capacity of the transmission vs the amount of generation "stranded" behind that capacity leading to bidding competition. Therefore, in the above example Gen 2 & Gen 3 would compete to bid for the FTR's on the constrained transmission line, which will drive the price up for that particular FTR.

However, if a decision is made to invest in the constrained transmission line and increase the capacity to 100MW in the example (i.e. Double the capacity) then the value of those FTR's suddenly drop to zero.

This means that those that purchased the FTR's before the announcement of the decision to increase the capacity of the transmission line will lose money. Further, if they believe there is a pending transmission upgrade, they will not bid, as the FTR's will not be required after the transmission line is upgraded. This will dilute the signals for investing in transmission upgrades further separating the linkage between transmission and generation.

Taking this to its logical conclusion, generators will be reluctant to spend money on FTR's if they believe the constrained transmission line will be upgraded in the near future. The proposal does attempt to overcome this issue by limiting the tenor and staggering the release of FTR's. This will also help mitigate any monopolistic trading of FTR's, but it will again dilute the signals for investing in transmission upgrades.

Investment Surety

Most investment decisions for generation investment are based on 10+ year time horizons and will only be made when matched to PPA's. Increasingly we are seeing PPA tenor extending in length to be 5-10 years going forward. Being able to deliver generation capacity to PPA demand across the life of the contract is critical for making the expected return on investment.

The current proposal of releasing FTR's for 3-4 years in a staged process will not meet future risk mitigation requirements for financial institutions and therefore does not meet the financial markets requirements for income surety, one of the key deliverables of COGATI.

Perversely, this is the opposite of the approach discussed above.

Auction of FTR's

Notwithstanding my concerns for the overall process, ahead of the auctions, information will be critical. In particular, existing constraints within the NEM. Have the AEMC considered how AEMO will make information about existing and upcoming constraints available to the market in a way that is accessible to all market participants ahead of the auction.

In addition, how will information about future financial commitment to transmission capacity be communicated to the market.

Additional Consulting

The importance of aligning investment in transmission capacity with investment in generation and storage capacity can not be underestimated for the coming transition from coal and gas fired power stations to renewables and storage. Future investment will need to not only accommodate the current electrical requirements of the NEM, but increase to cover the

- electrification of transport
- future production of hydrogen for transport
- future production of hydrogen for gas
- future production of hydrogen for export
- and other requirements of a zero-carbon world

It is estimated that this is an 8-fold increase in power generation capacity of the NEM. Admittedly not all that power will be transmitted, but the investment in both transmission and generation will need to be closely aligned to optimally deliver the financial investment in both.

I am keen to stay in contact with AEMC on the development of COGATI and look forward to contributing to future discussion papers on this subject.

If you need external consulting to review or test your modelling assumptions and execution, I am available as outlined below.

Regards,

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