

Industry Forum – Generator TUOS: Summary of discussions

17 August 2009 (Sydney)

This note summarises the key discussion areas from an Industry Forum held by the Australian Energy Market Commission (AEMC) on 17 August 2009. The purpose of the forum was to discuss the locational pricing issues raised in the 2nd Interim Report to the Review of Energy Market Frameworks in light of Climate Change policies (the Review) and comments provided in stakeholder submissions on the approach to these issues. An Agenda Paper, circulated prior to the forum, is available at www.aemc.gov.au.

What is the problem?

Meeting participants agreed that there is a risk of inefficient locational decisions by new generators because of a lack of locational signals. It was noted that the market relies on pricing signals to achieve the coordination between transmission and generation investment, which was internalised when the industry was centrally planned. A likely consequence, particularly in light of climate change policies, is an increase in the economic cost of congestion.

It was noted that while some locational signals do exist, including the presence of congestion, loss factors and inter-regional energy prices, these signals are not sufficiently strong to promote efficient locational decisions by generators.

Meeting participants also acknowledged the views of some stakeholders not represented at the meeting that the existing frameworks are adequate and further locational signals are not required.

The generators represented at the meeting raised a broader, and some considered more important, problem of risks around uncertainty of dispatch and the perceived unresponsiveness of the transmission network investment framework to alleviate inefficient network congestion.

The AEMC noted that the existing framework already provides for new transmission investment to build out congestion where the value to society is greater than the cost. This framework includes the Regulatory Investment Test for Transmission (RIT-T), the National Transmission Planner (NTP) and the Last Resort Planning Power (LRPP). This was accepted but it was noted that the RIT-T does not justify shared network augmentation to manage generator trading risk.

Participants questioned whether the RIT-T would facilitate the timely build out of intra-regional congestion. Concerns were also expressed that the planning and RIT-T processes would result in a significant lag in transmission investment that would lead to congestion in the short and medium term.

Possible solutions

Discussion focussed on generator transmission use of system charges (G-TUOS) and deep connection charges as two possible solutions to the locational signal problem.

Participants generally agreed that proponents of new or increased generation capacity should face a long run marginal cost (LRMC) signal of the impact of their investment on the network access of other generators and the consequent need for network augmentation.

- Meeting participants discussed the likely effectiveness of enhanced locational charges in light of other non-energy market signals and agreed that transmission charges would be effective at least at the margin.
- Generators considered increased certainty of access to the network is required to resolve inefficiencies associated with congestion through changes to the existing frameworks, to provide requirements or incentives for efficient and timely transmission investment to support new generator entry. Some views were expressed that transmission investment following generation investment would not necessarily lead to the most efficient outcome.
- These generators therefore considered that potential solutions should provide for appropriate transmission responses, as well as enhanced locational signals for connecting generators.

Meeting participants agreed that both G-TUOS and deep connection charges could deliver the same locational price signal to a generator.

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- Differences arise in the implementation of the two possible solutions, including the range of generator decisions influenced and the stability of the price signal.
- It was discussed how the design of a deep connection charging regime could deal with the issue of “lumpy” transmission investment and the extent to which reflecting the costs of overbuilding of transmission on the first mover would constitute a barrier to entry.
- A feature of deep connection charges would be a linkage between the charge and transmission augmentation. While a G-TUOS scheme could incorporate this feature, the AEMC considered appropriate implementation of the existing transmission investment framework should lead to an efficient level of transmission augmentation.

Meeting participants had differing views on whether a charge that reflects the value of the network capacity should apply to incumbents.

- One meeting participant considered that short term mechanisms provide signals for incumbents. Another considered deep connection charges would provide appropriate signals for retirement decisions given the value of transmission capacity to new entrants.
- It was noted that retirement of plant has only recently become an issue and therefore the rationale for the current position in the Rules (i.e. that consumers, not generators, pay for efficient reliability and market network augmentations) may not apply in the future.

Meeting participants had differing views on the appropriate trade-off between cost reflectivity and certainty associated with an ongoing charge versus an upfront charge.

- Generators represented at the meeting considered that an upfront charge applying over the life of an investment would promote certainty and that this is more important than the charge retaining cost reflectivity by means of periodic adjustments to reflect changed cost conditions. It was acknowledged there would be risks and distortions with locking in a charge as the true cost it is intended to reflect will change over time.

Participants agreed that, irrespective of the framework for locational signals, there would be challenges in estimating LRMC and that lack of information on future generator entry decisions would remain a barrier to long-term accuracy.

- One meeting participant noted that design features that simplify the implementation of a charge may dampen the signal. However, it was also noted there is a trade-off between the complexity of the charge and the transparency of the charge.

Participants noted that long term locational signals and short term congestion signals to promote more efficient bidding and dispatch outcomes need to be considered as part of an integrated package for efficient management of and response to network congestion. However, it was recognised that the focus of the forum was on the need for and form of long term location signals.

Principles for assessing possible solutions

Meeting participants discussed what principles should be used to assess possible solutions.

There was agreement that the overarching principle for assessing possible solutions should be the national electricity objective.

- It was noted that a number of the “good regulatory practice” principles identified were clearly desirable but did not focus particularly on the efficiency properties or desirable outcomes of the potential solutions.

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- One meeting participant suggested clearly identifying the outcomes being sought would be more appropriate than high level principles.
- One participant noted that seeking the best energy market design outcome was a form of multi-variable optimisation with multiple goals e.g. contract market liquidity, investment efficiency and operational simplicity.

Way forward

The AEMC noted it would provide the Final Report for the Review to the Ministerial Council for Energy by 30 September 2009.

The recommendation for the efficient use and provision of the transmission network is likely to take the form of a new work program to further explore the problem of locational signals and related issues. This work program will include further consultation with stakeholders.

Attendees

Chair, Dr John Tamblyn – AEMC

Mr John Ryan – AEMC

Mr Chris Spangaro – AEMC

Mr Andrew Truswell – AEMC

Ms Hannah Cole – AEMC

Ms Elisabeth Ross – AEMC

Mr Jeff Balchin – AEMC consultant

Dr Darryl Biggar – AEMC consultant

Mr Ross Mitchell – Australian Energy Regulator

Mr David Swift – Australian Energy Market Operator

Mr Alex Cruickshank – AGL

Mr Rob Jackson – Clean Energy Council

Mr John Barbera – CS Energy

Mr Con Van Kamenade – Energy Retailers Association of Australia

Mr Rainer Korte – Grid Australia

Mr Norman Jip – Grid Australia

Dr John Arneaud – Hydro Tasmania

Mr Stephen Orr – International Power

Mr Jamie Lowe – National Generators Forum

Mr John Lippiatt – Stanwell Energy