



AER Submission

Review of network support and control services Response to NEMMCO's draft determination report

16 February 2009

Introduction

The Australian Energy Regulatory (AER) welcomes the opportunity to respond to NEMMCO's draft determination report¹ on its review of network support and control services (NSCS) in the national electricity market (NEM).

The AER monitors the NEM and is responsible for compliance with and enforcement of the National Electricity Law and Rules. The AER is also responsible for the economic regulation of electricity transmission and distribution services. These roles mean that the AER is well placed to comment on NEMMCO's proposed changes to the current arrangements for NSCS planning and procurement.

While the AER appreciates the thoroughness of the review undertaken by NEMMCO and the range of issues it has considered, the AER has a number of concerns regarding the timing of the review and the proposed changes to the current framework for planning and procuring NSCS set out in NEMMCO's draft determination report. These concerns are outlined below.

Timing of the review

The Australian Energy Market Commission (AEMC) is currently reviewing energy market frameworks in response to climate change policies and the role of demand side participation in the NEM. The AER considers that these reviews could raise a number of issues which are directly relevant to NEMMCO's review of NSCS.

As well as these reviews, a number of changes to the NEM operation and the framework for transmission planning are in the process of being finalised. The Australian Energy Market Operator (AEMO) is scheduled to commence on 1 July 2009 and it is proposed that it will publish its first National Transmission Network Development Plan in its role as national transmission planner by 31 December 2010. The AER considers that the NSCS review should consider the implications of these developments and the potential for AEMO to plan NSCS levels as part of its national transmission planning role. This is discussed further below.

The AER considers that in light of these developments, the review should consider the role of NSCS more broadly. The introduction of the expanded renewable energy target (and to a lesser extent the carbon pollution reduction scheme) is likely to lead to an increase in intermittent generation and there may be a greater need for the deployment of network control ancillary services (NCAS) or other new forms of ancillary services (such as to ensure sufficient inertia).

NEMMCO noted in its draft determination that these issues relate more to managing frequency control so are not within the scope of this review. It considered that the AEMC may consider these issues as part of its climate change review.² However, the AEMC noted in its first interim report for the climate change review that NEMMCO is

¹ NEMMCO, *Review of network support and control services—draft determination report*, November 2008.

² NEMMCO, *Review of Network Support and Control Services- Draft Determination Report*, 25 November 2008, p. 115

monitoring these issues.³ It appears to the AER that neither NEMMCO nor the AEMC are exploring these issues in significant detail.

The AER considers that NEMMCO is the appropriate body to review these issues as it has significant expertise in power system operation and of the existing ancillary services arrangements.

NSCS definition

NEMMCO has proposed changes to the National Electricity Rules (the Rules) to remove the current definition of NCAS and replace it with a new definition of *transmission network support and control services*. This new definition combines the concept of network support services (NSS) with the current definition of NCAS. It removes the objective of enhancing the value of spot market trade and replaces it with the Regulatory Test concept of maximising net economic benefit.

While the AER does not object to a more outcomes-focused definition of NCAS or providing further guidance on what constitutes NSS, it has concerns with NEMMCO's proposed amendments to the service definition. The proposed amendments blur the distinction between NSS and NCAS and do not recognise that these services have very different objectives.

The requirement on transmission network service providers (TNSPs) to procure NSS arises from their obligation to consider non-network solutions such as generation or demand side options as an alternative to network augmentation. The objective of procuring NCAS is to promote network security and also to enhance spot market trade.

In 2002 the ACCC made the following comments in its final decision authorising amendments to the National Electricity Code (including amendments to provisions regarding non-market ancillary services):⁴

The clause is intended to provide NEMMCO with the opportunity to source non-market ancillary services prior to a network contingency. This has the potential to ease constraints in some cases, which would have a direct effect on spot market outcomes. Not all contingencies can be identified prior to their occurrence, but where they can, the decision as to the amount of non-market ancillary services required before the actual contingency occurs may enhance the value of spot trading...

Empowering NEMMCO to deploy non-market ancillary services to enhance network transfer capabilities offers potential benefits through realising benefits of trade in the spot market that would otherwise be forgone.

The AER is concerned that NEMMCO's proposed changes to the service definition will weaken the original objective of NCAS procurement as expressed by the ACCC in its 2002 determination.

The objective of 'enhancing spot market trade' will not be met through the Regulatory Test concept of 'maximising net economic benefit'. The Regulatory Test assessment considers market benefits and costs over the long term rather than short term spot

³ AEMC, *First Interim Report—Review of energy market frameworks in light of climate change policies*, p. 33.

⁴ ACCC, *Determination—Applications for authorisation, amendments to the National Electricity Code and changes to bidding and rebidding rules*, 4 December 2002, p. 35.

market outcomes. The long term nature of the net economic benefits test means that it is difficult to apply to the objective of enhancing the value of spot market trade. Enhancing the value of spot market trade is concerned with capturing both short term and long term benefits and is focussed on spot price outcomes rather than costs.

Furthermore the AER does not support NEMMCO's criticism that the current NCAS definition is deficient because it does not quantify the extent that spot market trade should be enhanced. There is no need for the definition to explicitly quantify how large the benefit to spot market trade needs to be—only that there is a benefit. While the AER notes that there may be some scope to improve the existing NCAS definition, the proposed amendments are not an improvement on the current arrangements and do not capture the different objectives of NSS and NCAS.

Service planning and procurement

The AER notes the concerns raised by NEMMCO regarding the joint procurement of services for NCAS and NSS and the potential for duplication and inefficiency. Given this inefficiency it may be reasonable to allocate the role of NCAS procurement to a single party.

However, the AER has a number of concerns regarding NEMMCO's proposed amendments and in particular whether:

- TNSPs will have an incentive to procure NCAS and NSS efficiently
- the NCAS and NSS planning regime will operate effectively in the absence of a market-wide planning function.

Incentives for efficient procurement and investment in NCAS and NSS

The proposed amendments increase the TNSPs' role in procuring NCAS and NSS. While the AER has no objection to a single organisation having sole responsibility for NCAS and NSS procurement, the AER is concerned that this proposal fails to provide sufficient incentives for TNSPs to fulfil this role efficiently. In particular:

- TNSPs lack incentives to make efficient trade-offs between alternative options for procuring reactive power ancillary services (RPAS)
- TNSPs lack incentives to procure an efficient level of NCAS and NSS.

NEMMCO's proposed amendments do not create incentives for TNSPs to procure NCAS and NSS efficiently. Rather TNSPs have an incentive to favour network augmentations over the alternatives. If TNSPs are given responsibility for procuring all RPAS, they are more likely to invest in their own network assets than procure RPAS from other parties. Contracts with generators are treated as operating expenditure, which means that a TNSP can only recover its costs. In the case of new network assets, however, TNSPs are permitted to earn a rate of return over the course of the life of the asset. Accordingly TNSPs may favour a network-based solution even where a contract-based solution is more efficient.

In addition there may be cultural reasons why TNSPs are likely to favour network solutions over contract solutions, even where a contract-based solution is more efficient.

TNSPs are more familiar with network-based options, and may feel more comfortable with mechanisms that they can control rather than relying on a contractual counterparty to execute obligations on their behalf.

In its draft determination report NEMMCO considered that the Regulatory Test and Regulatory Investment Test—Transmission (RIT-T) will be sufficient to overcome these concerns and ensure efficient procurement of NCAS and NSS. However, the AER considers that this mechanism may not be sufficient to ensure that TNSPs make efficient decisions when deciding how to address a given requirement.

The AEMC has recommended a cost threshold for the RIT-T of \$5 million (up from the current \$1 million threshold for the Regulatory Test).⁵ It is possible that the cost of many projects where NSS may be a viable alternative to network augmentation will fall below the proposed \$5 million threshold and would therefore not be subject to the RIT-T.

TNSPs also lack incentives to procure an efficient level of NCAS to enhance spot market trading. Under the current Regulatory Test, TNSPs have no *obligation* to pursue options that have net economic benefits (unless these options are also required to meet a reliability obligation). As discussed above, a TNSP will have an incentive to pursue network investments that meet the net economic benefits test as they receive a regulated return on these assets. However TNSPs have no incentive to pursue non-network investment options that meet the net market benefits test or enhance spot market trade (except when considering alternatives to network investment) as they will only recover their costs. Even if they were obliged to pursue these options (independently of considering network options), TNSPs are arguably not well placed to assess opportunities to enhance spot market outcomes as it is not directly related to their usual role.

While the AER accepts that it may be appropriate for the procurement function to reside solely with TNSPs, the proposals need further development. In particular, it is necessary to establish a level playing field when TNSPs choose between alternative options for meeting a given RPAS requirement.

In its issues and options discussion paper,⁶ NEMMCO considered whether an incentive regime should be developed to encourage TNSPs to seek solutions that maximise the use of existing power transfer capability. The AER notes that the service target performance incentive regime has recently been amended to improve incentives on TNSPs to minimise the market impact of their network outages. This scheme is experimental and the AER considers that it should not be extended to target power transfer capability until there has been an opportunity to review the effectiveness of the recent changes to the existing regime. In addition, an incentive regime for targeting power transfer capability may not be necessary if NCAS planning is undertaken independently of procurement. This is discussed further below.

⁵ AEMC, *Final Report—Congestion Management Review*, June 2008, p. 149.

⁶ NEMMCO, *Review of Network Support & Control Services: Issues & Options Discussion Paper*, 29 July 2008, p. 48.

Removal of national approach to planning

NEMMCO's proposed amendments to the NCAS and NSS framework remove NEMMCO's role in planning of overall NCAS levels. The AER considers that it is vital to have a well informed, nationally-focussed and financially disinterested party planning the use of NCAS and enhancing network transfer capability across all regions in the NEM. While TNSPs are very knowledgeable concerning their own networks, they have little stake in market outcomes and therefore are not well placed to assess the overall need for NCAS.

The AER is also concerned that under NEMMCO's proposals inter-regional planning of network loading control may be less co-ordinated between TNSPs. TNSPs are unlikely to be able to effectively and consistently coordinate national planning for NCAS due to differences between jurisdictional-based planning criteria and asymmetries associated with the co-ordination and sharing of information. TNSPs may also be less likely to effectively manage and co-ordinate planning when the service extends across regional boundaries.

The AER notes that NEMMCO considers that the Regulatory Test (and revised RIT-T regime), combined with the establishment of the AEMO and its national transmission planning role, will provide sufficient oversight. However the AER is concerned that there are problems associated with relying on the Regulatory Test (discussed above) and the new national transmission planning arrangements may not provide specific guidance to TNSPs on the levels of NCAS that they should procure. Even if AEMO adopted a national transmission planning role, there may be a lack of incentives for TNSPs to seek the most inter-regionally efficient network loading control options.

An alternative proposal might be an arrangement where AEMO (and in the interim NEMMCO) determines the overall level of NCAS that needs to be procured to meet power system security requirements. TNSPs would then have responsibility for either providing or procuring the levels advised by AEMO on the basis of an economic assessment.

The AER considers that allowing AEMO to plan the levels of NCAS would be strategically aligned with AEMO's national transmission planning role. The AEMO has been created to allow for a national transmission planning function. This arose from perceived problems with a lack of accountability for inter-regional planning and investments by TNSPs. Recognising this issue, the Ministerial Council on Energy directed the AEMC to consider what form the new planning functions should take, noting that:⁷

COAG has agreed to establish an enhanced planning process for the national electricity transmission network to ensure a more strategic and nationally coordinated approach to transmission network development providing guidance to private and public investors to help optimise investment between transmission and generation across the power system.

Permitting AEMO to plan the required levels of NCAS and obliging TNSPs to procure these services would overcome some of the deficiencies in the joint procuring arrangements identified by NEMMCO, and would also ensure a nationally-consistent planning regime.

⁷ MCE, *Direction to AEMC*, 3 July 2007, Attachment A: COAG response to the final report of the Energy Reform Implementation Group

NEMMCO's power to set minimum technical standards

The AER notes that NEMMCO has proposed Rule changes to remove NEMMCO's obligation to develop a set of minimum technical ancillary service standards and remove TNSPs obligations to enter into ancillary services agreements with registered participants to meet those standards (during connection negotiation).

While the obligation to specify these standards could be removed, the AER considers that NEMMCO should retain the option to impose these standards if it considers it necessary to do so in the future. The alternative is that NEMMCO will need to seek a formal Rule change if it considers that these standards need to be increased.⁸ This process could be quite lengthy. Retaining the option for NEMMCO to impose minimum technical standards would allow NEMMCO to respond swiftly to developments in the market. This seems prudent given that NEMMCO's proposed changes to the NCAS framework could give rise to unforeseen issues.

⁸ The AEMC's Reliability Panel (Panel) is currently reviewing technical standards. In its Draft Report of December 2008, the Panel proposed a number of principles, including in relation to minimum access standards, to be applied in revising the technical standards. The outcome of this review should provide further guidance.