

Australian Energy Market Commission

DRAFT RULE DETERMINATION

National Electricity Amendment (Network Support and Control Ancillary Services) Rule 2010

Rule Proponent

Australian Energy Market Operator

Commissioners

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23 December 2010

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For and on behalf of the Australian Energy Market Commission

RULE
CHANGE

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About the AEMC

The Council of Australian Governments, through its Ministerial Council on Energy (MCE), established the Australian Energy Market Commission (AEMC) in July 2005 to be the rule maker for national energy markets. The AEMC is currently responsible for rules and providing advice to the MCE on matters relevant to the national energy markets. We are an independent, national body. Our key responsibilities are to consider rule change proposals, conduct energy market reviews and provide policy advice to the Ministerial Council as requested, or on AEMC initiative.

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Summary of draft Rule determination

In response to a Rule change request from the Australian Energy Market Operator (AEMO), the Australian Energy Market Commissioner (AEMC or Commission) has made this draft Rule determination, and draft Rule, on network support and control ancillary services (NSCAS). NSCAS are services that are critical to maintaining the secure and reliable operation of the power system and are services that can be procured by either transmission network service providers (TNSPs) or AEMO. The Rule change request sought to implement recommendations from AEMO's Network Support and Control Services review.

The draft Rule introduces the term NSCAS, which replaces the term network control ancillary service (NCAS). Introducing this term, and new term 'NSCAS need' clarifies the definition and objectives of NSCAS. These terms will provide clearer direction for the procurement and deployment of such services. The draft Rule also clarifies that TNSPs have the primary responsibility for procuring NSCAS but provides a safety net by giving AEMO the ability to procure NSCAS for system security and reliability purposes.

The draft Rule provides that AEMO, through its National Transmission Network Development Plan (NTNDP), would identify its assessment of any need for NSCAS for the national electricity market. It would also identify a 'trigger date' to when each NSCAS need requires addressing. AEMO would procure the required NSCAS identified if it is necessary to meet system security and reliability obligations and AEMO consider that the TNSP is unlikely to provide the required service.

To procure the NSCAS, AEMO would be required to conduct a tender process and any provider would be able to tender for the NSCAS including non-registered participants and TNSPs, where specific obligations and standards would be established for non-registered participants. The Commission is interested in comments from stakeholders on whether non-registered participants should be able to provide NSCAS under these proposed arrangements or, alternatively, whether a new classification should be created under the Rules for such NSCAS providers. Where NSCAS has been procured by AEMO, the draft Rule provides that the costs would be recovered from Market Customers in regions that benefit from the NSCAS. AEMO would be required to develop Regulation Benefit Ancillary Services Procedures to assist with determining beneficiaries of NSCAS.

AEMO would be faced with administration costs to implement these new provisions. However, it is expected that these costs would be outweighed by the likely benefits. The benefits include promoting efficient investment in network services, the security and reliability of the electricity system and increasing the competition for procuring NSCAS.

Submissions on the draft Rule determination and draft Rule are to be provided by 25 February 2011.

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1 AEMO's Rule change request

1.1 The Rule change request

On 13 April 2010, the Australian Energy Market Operator (AEMO) (Rule Proponent) made a request to the Australian Energy Market Commission (AEMC or Commission) to make a rule regarding network support and control ancillary services (Rule Change Request). The Rule Change Request included proposed amendments to Chapters 2A, 4, 5, 8, 8A, 10 and 11 of the National Electricity Rules (NER or Rules).

1.2 Rationale for Rule change Request

Network Support and Control Services (NSCS) are services that are critical to maintaining the secure and reliable operation of the power system. They provide the capability to control the active or reactive power flow into or out of a transmission network in order to maintain that transmission network in a secure operating state and maintain or increase its power transfer capability. The term encompasses services procured by both:

- Transmission Network Service Providers (TNSPs), from their own assets (as network control services) or from other parties (as network support services); and
- AEMO, from Registered Participants (which are defined in the Rules as network control ancillary services).

In this Rule Change Request the Rule Proponent seeks to implement recommendations from the Final Determination of its review of NSCS (NSCS Review).¹ While the Rules required AEMO to review network control ancillary services (NCAS), in its Draft Scoping Paper for the NSCS Review the National Electricity Market Management Company (NEMMCO), as it was at the time, proposed broadening the review from the services procured by NEMMCO (i.e. NCAS) to the broad suite of NSCS. NEMMCO reasoned that given the inter-relationships between purposes and forms-of-service of the full suite of NSCS, a review of the arrangements for any individual service can only yield a robust outcome if all related services were considered at the same time.

In its Rule Change Request the Proponent provides its rationale for the Rule change. A number of key points raised in the Rule Change Request are summarised as follows:

- the responsibilities for procuring these services are inconsistent and lack clarity, as a result, TNSPs do not adequately plan to address the underlying requirement for such services through their own regulated investment process;
- the definition and objectives of NCAS are too narrow such that the full range of benefits are not considered;

¹ AEMO's Final Determination was published on its website on 18 December 2009.

- there is no integrated national planning focus, therefore, optimisation of NCAS with investments in network augmentations are not encouraged;
- potential providers of NCAS are precluded from providing the service, resulting in less competition for service provision;
- AEMO is not provided with sufficient information about network support agreements, as a result, AEMO's ability to achieve its power system security obligations is diminished; and
- costs are not recovered from those who receive the benefits of NCAS, therefore, locational market signals for efficient network service investment are muted.

1.3 Solution proposed in the Rule Change Request

The Rule Proponent proposes to resolve the issues discussed above by making a Rule that seeks to:

- replace the definition of NCAS with network support and control ancillary services (NSCAS), which would be defined as services that control active or reactive flows to assist in maintaining a secure transmission network or to maintain or increase its power transfer capability;
- set out the objective of NSCAS, which would be to:
 - maintain power system security and reliability in accordance with system security and reliability standards; and
 - maintain or increase power transfer capability so as to maximise the present value of net economic benefits for producers, consumers and transporters of electricity;
- clarify that transmission network service providers (TNSPs) would have the primary responsibility for procuring NSCAS;
- require AEMO to plan its NSCAS requirements through the National Transmission Network Development Plan (NTNDP) process;
- require AEMO to tender for NSCAS when a NSCAS need has been identified in the NTNDP and remained unmet for 18 months;
- allow a broader range of providers, including non-Registered Participants, to tender for the provision of NSCAS;
- require TNSPs to provide and update AEMO with relevant information on their NSCAS provided under Network Support Agreements; and

- allow AEMO to recover its NSCAS costs from Market Customers in benefiting regions in accordance with the proposed Regulation Benefit Ancillary Services Procedures.

1.4 Relevant Background

In this Rule Change Request AEMO seeks to implement recommendations from the Final Determination of its NSCS Review. NEMMCO, and then AEMO, was obliged under clause 3.1.4(a1)(4) of the Rules to conduct a review into the provision of NCAS. The review was required to include:

- a review of the responsibilities of AEMO (originally NEMMCO) and TNSPs for the provision of reactive power support;
- a review of the formulation of generic network constraint equations that depend on the provision of NCAS; and
- an assessment of the potential implications of markets for recruiting and dispatching NCAS.

The obligation to conduct a review on NCAS was mandated by amendments made in 2001 to the then National Electricity Code (the Code).² The amendments were a consequence of a review undertaken by NEMMCO on ancillary services arrangements in 1999.³ NEMMCO's 1999 Ancillary Services Review identified that:

“At the moment the potential for competition in voltage control services is clouded by apparent Code inconsistencies that assign responsibilities to both the TNSPs and NEMMCO, and that relate to the different incentives that apply to TNSPs, distribution businesses and generators in respect to these services.⁴”

NEMMCO initiated the NSCS Review on 29 July 2008 with the release of an Issues and Options Discussion Paper.⁵ NEMMCO undertook the review at this time as the review was to have regard to the outcomes of a National Electricity Code Administrator (NECA) review, which was never completed.⁶ In addition, with the AEMC's

² Australian Competition & Consumer Commission (ACCC), *Applications for Authorisation, National Electricity Code, Ancillary Services Amendments*, 11 July 2001.

³ Intelligent Energy Systems Pty Ltd, *Evaluation of Options for an Ancillary Services Market for the Australian Electricity Industry, A Project Commissioned by the NEMMCO Ancillary Services Reference Group, Final Report*, August 1999.

⁴ Ibid, p. xv.

⁵ NEMMCO, *Review of Network Support & Control Services: Issues & Options Discussion Paper*, 29 July 2008. Note, however, that NEMMCO published a draft and final scoping paper prior to the official commencement of the NSCS Review.

⁶ The review was a requirement of the same ACCC authorisation that required the review of NCAS. The primary focus of that review was to be on frequency control ancillary services spot market trading. See: ACCC, *Applications for Authorisation, National Electricity Code, Ancillary Services Amendments*, 11 July 2001, pp. 57-58.

agreement, the NSCS Review was delayed until the AEMC's Congestion Management Review was completed given it addressed similar issues.⁷

NSCS is not a defined term in the Rules. Therefore, for the purposes of its review, AEMO defined NSCS as services that are critical to maintaining the secure and reliable operation of the power system.⁸

While NCAS is considered as a subset of NSCS it effectively has the same capabilities as NSCS. The services that TNSPs procure and deliver, and the outcomes they seek to achieve, are in many ways, difficult to distinguish from the services procured and deployed by AEMO. However, under the Rules NCAS can only be procured and deployed by AEMO. For this reason, the generic term of NSCS has been used for these services that are provided by both TNSPs and AEMO. Whereas the term NCAS can only be applied to services procured by AEMO in accordance with the Rules.

1.5 Commencement of Rule making process

On 22 July 2010, the Commission published a notice under section 95 of the National Electricity Law (NEL) advising of the commencement of the Rule change process and the first round of consultation. A consultation paper prepared by AEMC staff identifying specific issues or questions for consultation was also published with the Rule Change Request. Submissions closed on 3 September 2010.

The Commission received seven submissions on the Rule Change Request as part of the first round of consultation. They are available on the AEMC website.⁹ A summary of the issues raised in submissions and the Commission's response to each issue is contained in Appendix A.

The Rule proponent requested that the Rule Change Request be subject to the fast-track Rule change process under section 96A(1)(a) of the NEL. The Commission decided not to fast-track the Rule Change Request.

1.6 Extension of time

The publication of the draft Rule determination was extended under section 107 of the NEL on two occasions. On 22 July 2010, the Commission published a notice under section 107 of the NEL advising it had extended the period of time for making:

- the draft Rule determination to 25 November 2010; and
- the final Rule determination to 17 March 2011.

⁷ AEMC, *Congestion Management Review - Final Report*, June 2008, p. 275.

⁸ AEMO, *Review of Network Support & Control Services, Final Determination Report*, 18 December 2009, p.10.

⁹ www.aemc.gov.au

On, 25 November 2010, the Commission published a further notice under section 107 of the NEL advising it had extended the period of time for making the draft Rule determination to 23 December 2010. The Final Determination is now expected to be published in April 2011.

1.7 Consultation on draft Rule determination

In accordance with the notice published under section 99 of the NEL, the Commission invites submissions on this draft Rule determination, including a draft Rule, by 25 February 2011.

In accordance with section 101(1a) of the NEL, any person or body may request that the Commission hold a hearing in relation to the draft Rule determination. Any request for a hearing must be made in writing and must be received by the Commission no later than 13 January 2011.

Submissions and requests for a hearing should quote project number "ERC0108" and may be lodged online at www.aemc.gov.au or by mail to:

Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

2 Draft Rule Determination

2.1 Commission's draft determination

In accordance with section 99 of the NEL the Commission has made this draft Rule determination in relation to the Rule proposed by AEMO. The Commission has determined it should make, with amendments, the Proposed Rule by the Rule Proponent.¹⁰

The Commission's reasons for making this draft Rule determination are set out in section 3.1. A draft of the proposed Rule that the Commission proposes to be made (Draft Rule) is attached to and published with this draft Rule determination. The key features of the Draft Rule are described in section 3.2.

2.2 Commission's considerations

In assessing the Rule change request the Commission considered:

- the Commission's powers under the NEL to make the Rule;
- the Rule Change Request;
- the fact that there is no relevant Ministerial Council on Energy (MCE) Statement of Policy Principles;¹¹
- the revenue and pricing principles under section 7A of the NEL;
- submissions received during first round consultation; and
- the Commission's analysis as to the ways in which the proposed Rule will, or is likely to, contribute to the National Electricity Objective (NEO).

2.3 Commission's power to make the Rule

The Commission is satisfied that the Draft Rule falls within the subject matter about which the Commission may make Rules. The Draft Rule falls within the matters set out in section 34 of the NEL as it relates to:

- the operation of the national electricity market;
- the operation of the national electricity system for the purposes of the safety, security and reliability of that system; and

¹⁰ Under section 99(3) of the NEL the draft of the Rule to be made need not be the same as the draft of the proposed Rule to which the notice under section 95 relates.

¹¹ Under section 33 of the NEL the AEMC must have regard to any relevant MCE statement of policy principles in making a Rule.

- the activities of persons (including Registered participants) participating in the national electricity market or involved in the operation of the national electricity system.

Further, the proposed Rule falls within the matters set out in schedule 1 to the NEL as it relates to the setting of prices for electricity and services purchased through the wholesale exchange operated and administered by AEMO, including maximum and minimum prices.

2.4 Rule making test

Under section 88(1) of the NEL the Commission may only make a Rule if it is satisfied that the Rule will, or is likely to, contribute to the achievement of the NEO. This is the decision making framework that the Commission must apply.

The NEO is set out in section 7 of the NEL as follows:

“The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity;
and
- (b) the reliability, safety and security of the national electricity system.”

For the Rule Change Request, having regard to any relevant MCE Statement of Policy Principles, the Commission considers that the relevant aspect of the NEO is promoting the efficient investment in, and use of, electricity services and ensuring the reliability, safety and security of the national electricity system.¹²

The Commission is satisfied that the Draft Rule will, or is likely to, contribute to the achievement of the NEO because the Draft Rule promotes both allocative efficiency and dynamic efficiency while maintaining the reliability and security of the national electricity system.

The draft Rule is likely to promote the NEO because the proposed NSCAS arrangements provide greater role clarity, and more transparent and nationally focused planning and that would encourage more efficient use of existing transmission networks without compromising AEMO's ability to maintain power system security and reliability. The draft Rule would establish a more open and transparent framework for the procurement and deployment of NSCAS. This would support efficient investment in, and efficient operation of, electricity services for the long term interests of consumers particularly with respect to price, reliability and security of electricity.

¹² Under section 88(2), for the purposes of section 88(1) the AEMC may give such weight to any aspect of the NEO as it considers appropriate in all the circumstances, having regard to any relevant MCE statement of policy principles.

The Draft Rule also includes a number of minor changes to improve the clarity and consistency of the Rules. Such changes should contribute to the efficient operation and use of electricity services in the national electricity market (NEM) because they are likely to reduce the potential regulatory uncertainty and inefficiency arising from such inconsistencies.

Under section 91(8) of the NEL the Commission may only make a Rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed Rule is compatible with the proper performance of AEMO's declared network functions, which includes its capacity as a TNSP in Victoria. The Draft Rule clarifies the framework for NSCAS and provides a new process for AEMO to procure and deploy such ancillary services. The Draft Rule does not impact on AEMO's obligations associated with planning or providing shared transmission services in Victoria. For this reason, the Commission considers the Draft Rule is compatible with AEMO's declared network functions.

2.5 Other requirements under the NEL

Under section 88B of the NEL, the AEMC must take into account the revenue and pricing principles in making a Rule for, or with respect to, any matter or thing specified in items 15 to 24 and 25 to 26J in Schedule 1 of the NEL. The Commission has taken into account the revenue and pricing principles in making this Rule determination as the Draft Rule relates to items 16(1) and 20 of Schedule 1 of the NEL. Some relevant aspects of the revenue and pricing principles relate to:

- providing service providers with efficient incentives in order to promote economic efficiency – which includes efficient investment in the system – with respect to the direct control network services being provided;
- providing a reasonable opportunity to service providers to recover efficient costs and ensuring that prices should allow for a return commensurate with the regulatory and commercial risks in providing the service; and
- having regard to the economic costs and risks of the potential for under and over investment of a transmission system with which a regulated network service provider provides direct control network services

The Commission considers that the Draft Rule is consistent with the revenue and pricing principles as it encourages efficient investment in NSCAS and hence the transmission network, without negatively impacting the TNSPs' ability to recover efficient costs.

3 Commission's reasons

The Commission has analysed the Rule Change Request and assessed the issues/propositions arising out of this Rule Change Request. For the reasons set out below, the Commission has determined that a Rule be made. Its analysis of the Proposed Rule by AEMO is also set out below.

3.1 Assessment

NSCAS provide the capability to control the active or reactive power flow into or out of a transmission network in order to maintain that transmission network in a secure operating state and maintain or increase its power transfer capability. Therefore such services can significantly increase the secure power transfer capability of parts of a transmission network.¹³ In the right situation, NSCAS can significantly increase secure power transfer capability and do so at a much lower cost than additional investment in transmission lines and transformers.

As identified by the proponent, there are a number of issues with the current arrangements for the procurement and deployment of NSCAS. Currently NSCAS are defined in different ways in the Rules which creates ambiguity about the purpose and objective of such services. Also the responsibilities between AEMO and TNSPs for procuring NSCAS are inconsistent and lack clarity.¹⁴ Given this, there is a potential that a gap could exist between the NSCAS that is procured by TNSPs and what AEMO considers is necessary. However while TNSPs and AEMO employ differing rationales for delivering or contracting NSCAS, and also procure and deliver different forms of NSCAS, the outcomes they seek to achieve are in many way indistinguishable.

The Draft Rule therefore clarifies the definition of NSCAS and the objectives of procuring such services and also removes any uncertainty about the responsibilities between TNSPs and AEMO. In addition, the Draft Rule ensures that potential providers of NSCAS are not precluded from the procurement process and therefore promotes an efficient and competitive processes. The draft Rule recognises that a nationally coordinated approach to the planning, acquisition and deployment of NSCAS has the potential to provide additional power transfer capability at

13 The secure power transfer capability or secure operating limit of a transmission network is based on ensuring the power system will be in a satisfactory operating state at all levels of power transfer up to its secure operating limit, and would return to a satisfactory operating state following any credible contingency event. Some NSCAS can supply reactive power to ensure voltages remain within acceptable limits following contingencies, while other NSCAS can supply active power or trip load to ensure the post-contingent power transfers remain within their operating ratings.

14 TNSPs ensure appropriate levels of NSCS are delivered such that there is the capability to manage intra-regional network reliability at expected peak demand in an effort to meet "intra-regional reliability" obligations and procure and deliver NSCS as part of the most efficient package of measures to deliver network capability with net market benefit consistent with the RIT-T. While AEMO procures appropriate levels of NCAS such that there is the capability to ensure a system-wide secure and reliable network at all times as part of meeting the power system security and reliability standards under the Rules and may also procure NCAS to assist in maximising the value of spot market trading.

significantly lower costs than alternative infrastructure investment and also achieve significant market benefits.

3.2 Draft Rule

The Draft Rule provides:

- for NSCAS to be defined as a service that controls active or reactive flows to assist in meeting an NSCAS need as defined in the Rules. The objective of NSCAS (an NSCAS need) will be described as the location and quantities of each type of NSCAS required to:
 - maintain power system security and reliability of supply of the transmission network in accordance with the power system security and reliability standards; and
 - maintain or increase the power transfer capability of that transmission network so as to maximise the present value of net economic benefit to all those who produce, consume or transport electricity in the market.
- for the TNSPs to have the primary responsibility for procuring NSCAS in accordance with their existing obligations with respect to reliability and security of supply;
- that AEMO will be limited to procuring NSCAS for system reliability and system security purposes as a last resort option, that is, when a TNSP has failed to do so;
- that AEMO would be required to publish its assessment of the need for NSCAS across the NEM in its NTNDP;
- for a trigger date which applies for each NSCAS need to be identified in the NTNDP. At the time of the trigger date AEMO would be required to determine if it is going to procure NSCAS to address system security or system reliability issues. It will be required to consult with TNSPs when making this decision. There is no constraint on when the trigger date can be, provided it is a date after the publication of the NTNDP;
- that AEMO is able to acquire NSCAS from persons other than Registered Participants and TNSPs will not be precluded from tendering with AEMO to provide NSCAS within their own regions;
- that all providers of NSCAS should be required to meet the requirements in the Rules, and AEMO would consult on the obligations and standards to apply;
- that both TNSPs and distribution network service providers (DNSPs) be required to provide relevant detailed information on their NSCAS provided under network support agreements to AEMO. TNSPs and DNSPs will also be obliged to negotiate in good faith with AEMO on the form of the instructions they will provide to AEMO on how to dispatch NSCAS;

- that AEMO develops (through the Rules consultation procedures) and publishes guidelines for the dispatch of NSCAS within central dispatch and Projected Assessment of System Adequacy (PASA) processes;
- that the costs for NSCAS procured by AEMO to be recovered from Market Customers in benefiting regions on the basis of the proposed Regulation Benefit Ancillary Services Procedures. AEMO will develop Regulation Benefit Ancillary Services Procedures in order to determine the beneficiaries of NSCAS it procures; and
- NSCAS costs incurred separately by TNSPs are recovered from network users through the TNSPs' regulated transmission charges. Where a TNSP provides NSCAS through tendering to AEMO, the costs would be treated as non-regulated revenue.

The Draft Rule differs from the Rule proposed by AEMO in the following ways:

- minor amendments to the definitions of NSCAS and NSCAS need in order to clarify how and when such services should be procured and deployed;
- limits the ability of AEMO to procure NSCAS only for system security and reliability reasons. TNSPs has sole responsibility for providing NSCAS which solely deliver market benefits;
- removes the 18 months timing after the publication of the relevant NTNDP constraint on the ability of AEMO to procure NSCAS;
- adds an annual reporting requirement on the TNSPs to report on both the current level of NSCAS capability that can be provided on its network, and how it proposes to address any relevant NSCAS need as identified in the most recent NTNDP.
- adds an obligation on AEMO to consult on the obligations and standards that would form part of tender documents for NSCAS; and
- includes a provision that all providers of NSCAS should be required to meet the requirements in the Rules, and AEMO would consult on the obligations and standards to apply.

3.3 Stakeholder views

The Commission's assessment has taken into consideration issues raised in stakeholder submissions to the Rule change process. The issues raised in submissions are discussed in the following chapters and a detailed summary of the issues, and responses and comments from the Commission, are outlined in Appendix A.

3.4 Civil Penalties

The Draft Rule does not amend any Rules that are currently classified as civil penalty provisions under the National Electricity (South Australia) Regulations. The Commission does not propose to recommend to the MCE that any of the proposed amendments in the Draft Rule be classified as civil penalty provisions as the Draft Rule relates to the procurement of network services. The nature of the provisions under Chapter 6A already provide incentives to ensure that TNSPs adhere to the requirements so that they would deliver services on an efficient basis.

4 Commission's assessment approach

The Commission's assessment of this Rule Change Request must consider whether the proposed Rule promotes the NEO as set out under section 7 of the NEL. In assessing the Rule Change Request against the NEO the following issues were taken into consideration:

- **signals for efficient investment** - will the proposed arrangements improve the transparency and regulatory certainty in the framework such that signals for efficient investment are improved;
- **efficient use of electricity services** - does the proposed Rule improve the likelihood of the benefits of the existing network being maximised so that network investments only occur when it is efficient;
- **barriers to entry** - if barriers exist, does the proposed Rule adequately address the barriers to potential providers wishing to supply NSCAS;
- **administrative efficiency** - do the benefits achieved through the proposed planning and dispatch arrangements outweigh the costs; and
- **quality, reliability and security of supply** - what is the impact of the proposed arrangements, in particular, expanding the possible suppliers of NSCAS, for reliability and security of supply.

The proposed Rule was assessed against the existing arrangements, which are the current provisions in the Rules.

Chapters 5 to 9 address the following key issues that are relevant to the Commission's assessment of this Rule Change Request:

- definition and objective of NSCAS;
- planning and procurement of NSCAS;
- provision of NSCAS by AEMO;
- deployment of NSCAS; and
- funding and cost recovery of NSCAS.

5 Definition and objective of NSCAS

This chapter addresses how the category of services which manage network flows should be defined in the Rules and also what the objective of the such services should be. Clarifying the definition and objective of NSCAS would provide clearer direction for the procurement and deployment of such services.

5.1 Rule change proponent's view

The existing definition of NCAS is as follows:¹⁵

“A service identified in clause 3.11.4(a) which provides AEMO with a capability to control the real or reactive power flow into or out of a transmission network in order to:

- (a) maintain the transmission network within its current, voltage, or stability limits following a credible contingency event; or
- (b) enhance the value of spot market trading in conjunction with the central dispatch process.”

Under clause 3.11.4(b) AEMO must develop and publish a procedure for determining the quantities of each kind of NCAS required for AEMO:

1. to achieve the power system and security and reliability standards; and
2. where practicable to enhance network transfer capability whilst still maintaining a secure operating state when, in AEMO's reasonable opinion, the resultant expected increase in NCAS costs will not exceed the resultant expected increase in benefits of trade from the spot market.

AEMO contended that the service objective of NCAS contained in this clause, and in the definition, is too narrow. This is because the spot market trading benefit objective does not cover the full range of benefits that TNSPs would consider when undertaking the regulatory investment test for transmission (RIT-T).¹⁶ AEMO also contended that the existing arrangements create ambiguity due to there being multiple objectives. AEMO stated that the objective of NCAS is defined in different ways in chapter 10, clause 3.11.4(b) and, indirectly, in clauses 3.11.5(a) and 3.11.6(a)(1) of the Rules.¹⁷

AEMO proposed to introduce a new defined term 'NSCAS' to replace the current definition for NCAS. NSCAS is described as a service that controls active or reactive flows to assist in maintaining a secure transmission network or to maintain or increase its power transfer capability. AEMO also proposed a new objective for NSCAS,

¹⁵ Definition of Network Control Ancillary Services, Chapter 10 of the Rules.

¹⁶ AEMO Rule Change Request, p. 14.

¹⁷ Ibid.

referred to as a 'NSCAS need'. A NSCAS need is described as the location and quantities of each type of NSCAS required to:

- maintain power system security and reliability of supply of the transmission network in accordance with the power system security and reliability standards; and
- maintain or increase the power transfer capability of that transmission network so as to maximise the present value of net economic benefit to all those who produce, consume or transport electricity in the market.

5.2 Stakeholder views

Stakeholders generally supported the definition and objective proposed for NSCAS.

However, Grid Australia was concerned that the definition may be unintentionally broad. For example, Grid Australia suggested that the definition could be taken to mean something as simple as a circuit breaker or a change to a protection setting.¹⁸

Hydro Tasmania and Transend considered the definition of NSCAS should include the provision of system inertia.¹⁹ This is because additional system inertia reduces the need for some frequency control ancillary services and, hence, can be regarded as a substitute for such services.

5.3 Commission's analysis

The definition and objective for NSCAS proposed by AEMO is broader than the existing definition and objective of NCAS. The existing arrangements appear to be focussed more towards the real time application of network support and control services. This is because they relate to spot prices and maintaining current, voltage and stability limits following a credible contingency. However, the proposed definition and objective focus more on longer term objectives and hence is more consistent with the transmission planning framework. The Commission agrees that the definition and objectives of NSCAS should be consistent with the manner that TNSPs plan and operate their networks.

The Commission considers that the definition and objective of NSCAS should be in terms of an NSCAS need. Therefore, in principle, the definition proposed by AEMO achieves this aim. In addition, this definition would encompass any activity or service which provides system inertia.²⁰

¹⁸ Grid Australia submission to the first round consultation, 3 September 2010, p. 11x.

¹⁹ Hydro Tasmania submission to the first round of consultation, 2 September 2010, p. 2; Transend submission to the first round of consultation, 2 September 2010, p. 2.

²⁰ AEMO monitors the adequacy of power system security across the NEM through its annual review of power system adequacy (PSA), which includes scenarios that assume greater amounts of low inertia generation, to identify whether there are material issues with how system inertia is provided. The 2010 PSA's assessment of the Victorian and South Australian regions found that the

The definition of NSCAS proposed by AEMO includes two elements. The first relates to what the service is. The second relates to how the service is used. The proposed description of a 'NSCAS need' also includes a description of how the NSCAS should be used. The Commission agrees that it is important that the objective of NSCAS encompasses both purposes of managing system security reliability and delivering economic benefits.

However it considers that having the use of the service described in two places may create conflict or uncertainty between the two. Where this is the case, there may be implications for regulatory certainty and clarity for market participants. The Commission considers that the definition proposed by AEMO, with some minor amendments and clarifications, would be appropriate.

5.4 Commission's conclusion

The Commission concludes that AEMO's proposed definition should be adopted with only minor amendments.

For the draft Rule, NSCAS should instead be defined as a service that controls active or reactive flows to assist in meeting an NSCAS need as defined in the Rules. This differs from AEMO's proposed definition where NSCAS is described as a service that controls active or reactive flows to assist in maintaining a secure transmission network or to maintain or increase its power transfer capability

For the draft Rule, the objective of NSCAS (an NSCAS need) should be described as the location and quantities of each type of NSCAS required to:

- maintain power system security and reliability of supply of the transmission network in accordance with the power system security and reliability standards; and
- maintain or increase the power transfer capability of that transmission network so as to maximise the present value of net economic benefit to all those who produce, consume or transport electricity in the market.

frequency operating standards would be met under all scenarios with some possibility of automatic under-frequency load shedding. For the Tasmanian region, which also has a significant amount of wind generation, analysis was based on studies taken from the AEMC Reliability Panel's review of the Tasmanian frequency operating standards, which found that reduced inertia was not expected to cause frequency control issues for the period ended June 2012.

6 Planning and Procurement

This chapter sets out the Commission's considerations in relation to the planning and procurement of NSCAS. As explained above, NSCAS has two purposes: either to manage system security and reliability; or to deliver economic benefits to the market. We have separated our assessment on the appropriate arrangements for the planning and procurement between NSCAS for system security and NSCAS for economic benefits.

6.1 Rule change proponent's view

AEMO proposed that TNSPs have the primary responsibility for procuring NSCAS. AEMO would have an obligation to plan the national grid requirement for NSCAS as part of its national transmission planner functions and to report on the estimated required level in its NTNDP. Therefore the need for NSCAS would be identified in the NTNDP. Under the proposed Rule, AEMO would only procure NSCAS when a NSCAS need had been identified in the NTNDP and remained unmet for 18 months (i.e., the relevant TNSP has not taken action to procure or develop the required ancillary service to address the identified NSCAS need). AEMO proposed that its role for procuring NSCAS would cover both NSCAS for system security and NSCAS for economic benefits.

AEMO proposed these procurement and planning arrangements because it considers that, under the existing arrangements, the obligations to acquire NCAS are unclear and the relative responsibilities between AEMO and the TNSPs are uncertain. It considers that this leads to TNSPs procuring or supplying less ancillary services than is required.²¹ In addition, AEMO considered that the existing arrangements lack an integrated national planning focus.²²

6.1.1 NSCAS for system security

TNSPs have planning and operating obligations to ensure security of supply and that the network is robust to credible contingencies.²³ These obligations and standards are included in various jurisdictional planning obligations, Rule obligations and licence conditions. Where TNSPs' network capability obligations are relevant, the level of NSCAS procured or delivered by TNSPs will depend on the TNSPs' interpretation of the applicable instrument(s) and the mix of infrastructure and services by which TNSPs meet the relevant standards. Subject to funding restrictions established via regulatory resets, there is a degree of flexibility with respect to the mode by which TNSPs will choose to deliver on network obligations. As a consequence of these arrangements, TNSPs already provide a base level of network control services for security of supply reasons.

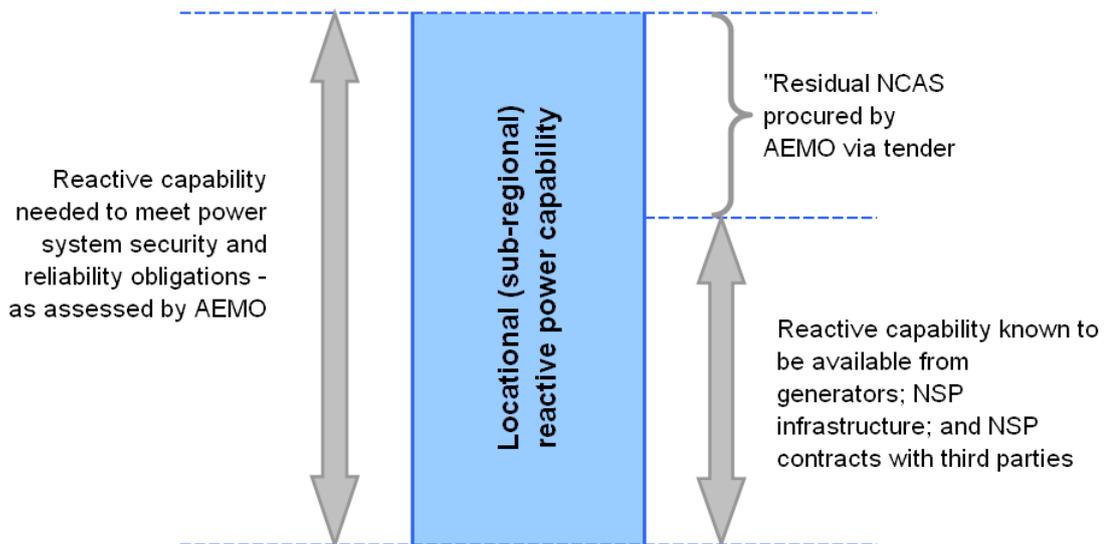
21 AEMO Rule Change Request, p. 18.

22 Ibid.

23 Schedules 5.1 and 5.1a of the Rules.

AEMO has obligations to maintain a secure and reliable system.²⁴ This has meant that AEMO will procure NCAS when it identifies a gap between its assessment of the NCAS required to meet its standards and objectives and the base level of network control services guaranteed to be provided by TNSPs. In doing so, AEMO assumes that all Registered Participants will meet their registered performance requirements and TNSPs will meet their network performance standards unless otherwise advised.²⁵ The figure below illustrates the relationship between NSCS procured by TNSPs and AEMO.

Figure 6.1 AEMO's reactive power capability procurement decision



AEMO contended that one of the reasons a gap exists between what TNSPs procure and what AEMO deems as necessary for system security reasons is that TNSPs may believe only AEMO is permitted to procure NCAS.²⁶ As a result of this, AEMO contends that TNSPs do not plan to address the underlying NCAS requirement through their own regulated investment process.²⁷

AEMO proposed to overcome the problem of TNSPs procuring insufficient NSCS by clarifying that both TNSPs and AEMO are able to acquire NSCAS. In addition, AEMO has proposed that its assessment of the necessary level of NSCAS for the national network is planned and defined through the NTNDP. AEMO stated that its NCAS planning arrangements are not integrated with the National Transmission Planner

²⁴ Clause 4.3.1(k) of the Rules.

²⁵ NEMMCO, *Review of Network Support & Control Services: Issues & Options Discussion Paper*, 29 July 2008, p. 33.

²⁶ AEMO Rule Change Request, p. 18.

²⁷ AEMO also cites that different standards between TNSPs and AEMO may be factor. However, this was considered outside the scope of the NSCS Review.

(NTP) function, which does not encourage optimisation of NCAS with investments in network augmentations or replacements that are typically of a longer-term nature.²⁸

Under the proposed Rule AEMO's ability to tender for NSCAS is linked to the planning framework. First, a 'NSCAS need' must be identified in the NTNDP and remain unmet for a period of 18 months from its first identification before AEMO can tender for the service.

6.1.2 NSCAS for economic benefit

TNSPs do not have specific obligations to undertake projects for market benefits. Instead, TNSPs will procure network support services on the basis of the incentives they face in the economic regulation framework and their ability to recover the costs of such services under Chapter 6A of Rules. For instance, a service incentive scheme applies under the Rules which is designed to encourage TNSPs to provide greater reliability of the transmission system at times when transmission network users place greatest value on the reliability of the transmission system. This incentive scheme also seeks to provide incentives for TNSPs to improve and maintain the reliability of those elements of the transmission system that are most important to determining spot prices.²⁹ In addition, TNSPs are required to consider market benefits when undertaking the RIT-T.³⁰

AEMO has obligations with respect to increasing the benefits of trade from the spot market. With respect to NCAS, AEMO is required, where practical, to enhance network transfer capability whilst still maintaining a secure operating state when, in AEMO's reasonable opinion, the resultant expected increase in network control ancillary service costs will not exceed the resultant expected increase in benefits of trade from the spot market.³¹ In addition, we note that the Non-Market Ancillary Services (NMAS) Operating Procedure states that, with respect to network loading control, if the market benefit exceeds the service enabling cost then the service should be enabled.³²

AEMO proposed that if a TNSP failed to invest in NSCAS which maximises the present value of net economic benefits, AEMO would then be required to procure these network support services 18 months after the NSCAS need was first identified in the NTNDP.

28 This issue is exacerbated as AEMO's NMAS tendering guidelines for NCAS only allow for an NCAS assessment once every three years with a three year outlook, and NCAS is contracted for immediate delivery with no lead-time to construct facilities.

29 Clause 6A.7.4(b) of the Rules.

30 Clause 5.6.5B(b) of the Rules.

31 Clause 3.11.4(b) of the Rules.

32 AEMO, *Operating Procedure, Non-Market Ancillary Services*, 1 July 2009, p. 9.

6.2 Stakeholder views

Stakeholders generally agreed that identifying the need for NSCAS in the NTNDP would be beneficial.

However, Alinta Energy Limited (AEL),³³ Hydro Tasmania³⁴ and the National Generators Forum (NGF)³⁵ were concerned that the provision of NSCAS may not be optimal if it is planned and procured by TNSPs. The efficient provision of NSCAS in one region will enhance transfer capacity to an adjacent region, to the benefit of Market Customers in the importing region. Therefore, they considered that the responsibility for enhancing inter-regional transfer should be clarified. In addition, the NGF considered that the proposed arrangements rely on AEMO's NTNDP meeting all relevant information requirements for NSCAS planning and procurement and that the RIT-T is applied in an unbiased way.³⁶ Stakeholders also noted that both the NTNDP and the application of the RIT-T were untested.³⁷

Some stakeholders were concerned whether the roles and responsibilities have been appropriately allocated. Grid Australia considered that the TNSPs should be the sole provider of NSCAS and that AEMO should not procure NSCAS even as a last resort.³⁸ Grid Australia considered the AEMC's Last Resort Planning Power and the AEMO's power of direction provide sufficient safety nets.³⁹

AEL and the NGF were concerned that no one has an obligation to undertake market benefits projects and the NGF considered AEMO should have this function.⁴⁰

AEL were concerned about the 18 month delay between AEMO identifying the need for NSCAS (to allow TNSPs to procure the NSCAS) and when AEMO procures the NSCAS. AEL were concerned that this may mean that the reliability and security of the power system may be compromised.⁴¹

6.3 Commission's analysis

The Commission considers that the TNSPs should be the primary providers of NSCAS as the planning standards applied to the TNSPs and the security of supply arrangements in the Rules already require TNSPs to provide NSCAS.

33 Alinta Energy Limited submission to the first round of consultation, 3 September 2010, p. 1.

34 Hydro Tasmania submission to the first round of consultation, 2 September 2010, p. 3.

35 NGF submission to the first round of consultation, 3 September 2010, p. 1.

36 NGF submission to the first round of consultation, 3 September 2010, p. 1. & p.3.

37 For example, NGF submission p. 5 and Alinta Energy Limited submission p. 2.

38 Grid Australia submission to the first round consultation, 3 September 2010, p. 1.

39 Grid Australia submission to the first round consultation, 3 September 2010, p. 9.

40 Alinta Energy Limited submission to the first round of consultation, 3 September 2010, p. 3; NGF submission to the first round of consultation, 3 September 2010, p. 5.

41 Alinta Energy Limited submission to the first round of consultation, 3 September 2010, p. 2.

The delivery of network capability can be accomplished with a variety, and combination, of technologies. Most of the requirements for NSCAS are highly locationally specific and, by varying the level of real or reactive power at different locations in the network or by operating load control facilities, the level of network congestion can be altered in ways that either reduce or increase the dispatch cost on the spot market for energy. The mix of assets, and form of, NSCAS a TNSP supplies with its own infrastructure, or procures via contract with third parties, will be a function of the relevant standards associated with preventing or managing congestion occurring in a TNSP's network and the outcomes of testing available options under the RIT-T.

Therefore since NSCAS are both a necessary complement to network assets, and also a partial substitute for them, the Commission considers that there is merit in ensuring that TNSPs have control of the planning and procurement in order to deliver defined network services at efficient cost. It is important that the TNSP is able to take a complete holistic view of how best to plan its network to both meet the required standards and deliver services which maximises economic benefits, where it is efficient to do so. Therefore it would be most effective if TNSPs continue to be the primary providers of NSCAS as part of their responsibility to deliver network services.

The Commission does, however, consider that a safety net is desirable to ensure that sufficient NSCAS is procured such that system security can be maintained. It agrees with the proponent and stakeholders that the current arrangements are confusing and do not promote optimal delivery of such ancillary services. Therefore, the Commission considers that AEMO should be able to procure NSCAS to maintain system reliability and system security in the event that insufficient NSCAS is procured by TNSPs. This may be necessary if the planning standards and the security of supply arrangements applied to TNSPs do not provide the appropriate incentives to procure sufficient NSCAS. It could also be necessary if there are differences in the system security and reliability standards between AEMO and TNSPs (or even differences in the interpretation of such standards).

Given this consideration, the question becomes what should be the appropriate arrangements to trigger AEMO's role in procuring NSCAS. The Commission considers that it would better promote the national electricity objective to make the following two amendments to AEMO's proposed arrangements:

- that AEMO's scope to procure NSCAS is limited to ensuring availability of appropriate levels of NSCAS to achieve the power system security and reliability standards, consistent with its existing functions and obligations. Hence AEMO would have no obligation to procure NSCAS solely for economic benefits purposes; and
- removing the constraint that AEMO can only step in and procure NSCAS after a period of 18 months after the need had been identified in the NTNDP. AEMO should be able to procure NSCAS at any time where in the absence of doing so, the power system could experience either a security or reliability problem; and AEMO considers there is no prospect that a TNSP would take action to address that gap.

The Rules already include obligations and incentives for TNSPs to develop a secure and reliable network, and it also allows them to enter into network support agreements for non-network options. While AEMO's responsibility regarding system security is clear, its responsibility and role in delivering wider market benefits is less so. To date, AEMO's role in terms of economic benefits from the network has been limited to minimising spot prices.⁴² Allowing AEMO to procure network support services for market benefits across the NEM is potentially a broader role. It also potentially shifts the accountability for the performance of the network, at least in the context of network support services, away from TNSPs and towards AEMO.

When the decision to establish a NTP was made, the Council of Australian Governments (COAG) agreed that under the new transmission planning arrangements, accountability for jurisdictional transmission investment, operation and performance will remain with the TNSPs.⁴³ Establishing a role for AEMO to procure NSCAS which delivers market benefits (which would be wider than its current role with respect to benefits of spot market trading) may remove some accountability from TNSPs.

The NTNDP has been developed as a transparent, informative planning tool to assist TNSPs in planning their networks over the long term in a manner consistent with promoting the efficiency of the national energy market and also to improve stakeholders' understanding of future transmission constraints and the possible planning options. Expanding the NTNDP to be used in a way which determines the required level of investment and then mandating parties to deliver that prescribed level is not consistent with the purpose of the NTNDP. The NTNDP is a planning guide and it should be possible for TNSPs and AEMO to employ more or less NSCAS (than that identified in the NTNDP) where it is efficient to do so.

Therefore, the purpose of NSCAS Rules should be to identify when AEMO needs to intervene in the market, that is, when the reliability or security of the system is at risk. Thus AEMO's role in procuring NSCAS should be in providing a safety net focussed on system security and reliability. In coming to this view the Commission considered the proposed arrangements for NSCAS in the light of the arrangements that already apply for network planning.

The Commission also considers that the 18 month time frame proposed by AEMO is relatively inflexible. There is a possibility that this constraint may limit AEMO's ability to achieve its security of supply obligations as it would be unable to procure NSCAS even if it considered that TNSPs were unlikely to address the NSCAS need during that period. Also it is possible that circumstances change or better information becomes available which removes the rationale for the considered initial need. In such situations, it would be inefficient if AEMO remained obliged to procure NSCAS.

⁴² We note, however, AEMO has a role with respect to the Victorian transmission system where it is the planner and procurer of network services. In this context, AEMO has a role in considering market benefits projects for network planning purposes.

⁴³ See MCE Terms of Reference to the AEMC for the National Transmission Planning Arrangements Review, 3 July 2007.

For these reasons, the 18 month time frame should be removed and AEMO should have the ability to:

- identify in the NTNDP the trigger date for when it considers it will need to procure NSCAS, where the trigger date could be any date after the publication of the NTNDP; and
- publicly consult with the TNSP to ensure that a gap exists and, where a gap exists, to procure NSCAS when a system security or reliability issue needs to be addressed.

The Commission also considers adding some further provisions to help ensure that the overall framework for the provision of NSCAS is transparent, effective and promote efficient delivery of network services for consumers. TNSPs should be obliged to report each year in its Annual Planning Report on both:

- the current level of NSCAS capability that can be provided on their network; and
- how it intends to address any relevant NSCAS need as identified in the most recent NTNDP.

In addition, AEMO should also be required to procure any NSCAS on a cost effective basis.

The Commission considers that these amendments:

- maintain the framework of TNSPs being primarily responsible for network services and the NTP providing strategic long term planning with a national focus; and
- provide an appropriate safety net to ensure system security and reliability are maintained as it enables AEMO to procure NSCAS quicker when it is necessary to do so.

Some stakeholders raised concerns that TNSPs may not be sufficiently incentivised to provide NSCAS which deliver market benefits nor plan their networks on a national basis. The Commission notes that the RIT-T has been developed to ensure that TNSPs take into account market benefits and to have regard to national impacts of their proposed investments. Also the proposed planning of NSCAS needs by AEMO in the NTNDP will ensure that TNSPs will have information about NSCAS needs outside of their immediate network boundaries. The Commission also notes that it is currently conducting a Transmission Framework Review which will assess the wider framework of how transmission services are provided in the NEM including the appropriate incentives for TNSPs.⁴⁴

⁴⁴ AEMC Transmission Framework Review, Issues Paper, 18 August 2010.

6.4 Commission's conclusion

The Commission concludes that:

- TNSPs will bear the primary responsibility for procuring NSCAS in accordance with their existing obligations with respect to reliability and security of supply;
- AEMO will be limited to procuring NSCAS for system reliability and system security purposes as a last resort option, that is, when a TNSP has failed to do so;
- AEMO would be required to publish its assessment of the need for NSCAS in its NTNDP;
- a trigger date would apply for each NSCAS identified in the NTNDP. At the time of the trigger date AEMO would be required to determine if it is going to procure NSCAS. It will be required to publically consult with TNSPs when making this decision; and
- TNSPs should be obliged to report each year in its Annual Planning Report on both the current level of NSCAS capability that can be provided on its network; and how it intends to address any relevant NSCAS need as identified in the most recent NTNDP.

7 Provision of NSCAS by AEMO

This chapters sets out the assessment of the issues relating to how NSCAS should be procured by AEMO and the parties that may provide such services.

7.1 Rule change proponent's view

Under the existing arrangements only Registered Participants can tender to AEMO to provide NCAS.⁴⁵ The arrangements also exclude TNSPs from tendering to AEMO for reactive power ancillary services as a consequence of the technical specifications in AEMO's NCAS description.⁴⁶

AEMO's choices in the procurement of NCAS is limited because of:

- Clause 3.11.5(a) of the Rules that states “ ... AEMO must call for offers from persons who are in a position to provide the non-market ancillary service so as to have the required effect at a connection to a transmission network in an invitation to tender”;
- Clause 3.11.5(j) of the Rules that states: “ ... AEMO must not acquire non-market ancillary services from any person who is not a Registered Participant”; and
- the description of reactive power ancillary service⁴⁷ in AEMO procedures for determining quantities of network control ancillary services, is qualified as: “ excluding such capability within a transmission or distribution system” which excludes TNSPs from tendering for “residual” NCAS to AEMO.

Therefore, through the application of these provisions, AEMO can only acquire NCAS from Registered Participants who are neither transmission network service providers (NSPs) nor distribution NSPs. The consequence being that provision of NCAS in the form of reactive power capability is effectively limited to:

- registered generators operating in generation mode;
- registered generators operating in SynCon mode; and
- market network service providers (MNSPs) providing DC link voltage control

AEMO considers that widening the range of service providers would in many cases encourage greater competition and reduce the price of the service.⁴⁸ AEMO has,

⁴⁵ 3.11.5(j) of the Rules.

⁴⁶ AEMO, *Network Control Ancillary Service Description*, July 2009.

⁴⁷ Reactive power ancillary service is the capability to supply reactive power to, or absorb reactive power from, the transmission network in order to maintain the transmission network within its voltage and stability limits following a credible contingency event but excluding such capability within a transmission or distribution system or as a condition of connection

⁴⁸ AEMO Rule Change Request, p. 18.

therefore, proposed that it be able to acquire NSCAS from persons other than Registered Participants. In addition, AEMO has proposed that it will address procedural issues, such as the exclusion of TNSPs tendering for reactive power support, in consequential amendments to relevant procedures which support the application of the Rules.

7.2 Stakeholder views

AEL⁴⁹ and Hydro Tasmania⁵⁰ considered that the TNSPs should be prohibited from tendering to AEMO to provide NSCAS within their own regions. The NGF was concerned that a TNSP could effectively game the process by deciding not to include the service as part of its regulatory determination, but later to tender to AEMO to provide the service.⁵¹ However, the NGF considered that once a TNSP makes a decision to competitively tender to provide NSCAS then that relevant service should remain outside of the TNSP's Regulatory Asset Base (RAB) for the life of the asset.⁵²

The Australian Energy Regulator (AER) considered the change to allow TNSPs to compete against Registered Participants would promote efficient outcomes as it permits AEMO to consider a broader range of options for meeting an NSCAS need.⁵³ The AER noted that the potential risk of TNSPs' double dipping through their revenue recovery processes was only possible in limited circumstances.⁵⁴ Grid Australia considered that this risk could be managed through guidelines.⁵⁵

Grid Australia⁵⁶ and the NGF⁵⁷ considered it was important that non-registered participants be required to comply with the Rules or similar arrangements if they were to provide NSCAS. The NGF recommended that AEMO be required to consult on the obligations and standards for non-Registered Participants.⁵⁸

7.3 Commission's analysis

On this issue of how NSCAS is procured by AEMO, the Rule Change Request raises two issues:

- whether AEMO is able to acquire NSCAS from persons other than Registered Participants; and

⁴⁹ Alinta Energy Limited submission to the first round of consultation, 3 September 2010, p. 3.

⁵⁰ Hydro Tasmania submission to the first round of consultation, 2 September 2010, p. 4.

⁵¹ NGF submission to first round consultation, 3 September 2010, p. 8.

⁵² NGF submission to the first round of consultation, 3 September 2010, p. 7.

⁵³ AER submission to the first round of consultation, 6 September 2010, p. 2.

⁵⁴ AER submission to the first round of consultation, 3 September 2010, p. 2.

⁵⁵ Grid Australia submission to the first round of consultation, 3 September 2010, p. 12.

⁵⁶ Grid Australia submission to the first round consultation, 3 September 2010, p. 11.

⁵⁷ NGF submission to the first round of consultation, 3 September 2010, p. 7.

⁵⁸ NGF submission to the first round of consultation, 3 September 2010, p. 6.

- whether the relevant jurisdictional TNSP should be prohibited from tendering to AEMO to NSCAS within their own regions.

The Commission agrees with AEMO's proposal that it should be able to acquire NSCAS from persons other than Registered Participants. Allowing parties other than registered participants to provide NSCAS will increase the amount of competition for the provision of these services. This would in principle reduce the costs to AEMO to provide NSCAS and provide AEMO with greater flexibility to meet NSCAS needs.

However, parties that are not Registered Participants are not subject to the requirements of the Rules. This means they would not be subject to the provisions that seek to ensure that NSCAS would be provided in a safe and secure manner.⁵⁹ Hence the Commission agrees with AEMO that additional arrangements would be required for non-Registered Participants to provide NSCAS. AEMO proposed that these obligations and standards would form part of the tender documents and would, as a result, be formalised in contracts with successful NSCAS providers.

The Commission considers that AEMO should be required to consult on the obligations and standards that would form part of the tender documents and that obligations and standards should reflect all relevant requirements in the Rules. This is important to ensure that this proposed arrangement would not adversely impact on system security or reliability outcomes, and also does not reduce transparency provided by the Rules.

The Commission is interested in stakeholders views on whether non-registered participants should be permitted to provide NSCAS to AEMO under these arrangements or alternatively whether a new classification of registered participants should be created for such potential providers of NSCAS.

The Commission notes that some stakeholders are concerned whether TNSPs should be able to participate in tenders to AEMO. TNSPs are provided with revenue for meeting their service obligations on an ex-ante basis. This means TNSPs could be provided with a revenue allowance for NSCAS it proposes to procure during a regulatory control period, but during that period the TNSP instead provides the service competitively to AEMO under tender (refer to as "double-dipping" as TNSPs would be paid twice for the one service). Hence allowing TNSPs to tender for the provision of NSCAS within their own regions may have implications that could impact on efficient outcomes.

The Commission also recognises that given the unique role of TNSPs with respect to other potential providers (e.g. TNSPs generally are aware of many of the technical aspects of other potential NSCAS providers due to their role in network connection), allowing TNSPs to tender for the service may distort the effectiveness of competition in the relevant market. Therefore precluding TNSPs from tendering for NSCAS within their own regions would remove any risk of inefficient NSCAS procurement and revenue double dipping.

⁵⁹ Clause 3.11.7 of the Rules.

However, the Commission is concerned that it may not always be practical, such as due to licensing requirements, for entities other than the local TNSPs to provide NSCAS. Also the Commission considers that the proposed framework would have sufficient transparency to alleviate the risks identified. In addition, the Commission's draft recommendation that AEMO should only be limited to procure NSCAS for system security needs and that TNSPs are solely responsible for providing NSCAS for market benefit purposes will decrease the range of opportunities for TNSPs to exploit any competitive advantage. Therefore the Commission considers that on balance TNSPs should be able to tender to provide NSCAS within their own region.

The Commission considers that the ability of TNSPs to double dip under the proposed arrangements is limited. The arrangements are reasonably transparent with the NSCAS need being:

- identified in the AEMO NTNDP
- met through the AEMO tender process. ; and
- AEMO being required to explain publically when it makes its call for offers, why it considers that the relevant NSCAS need will not be addressed by the jurisdictional TNSP in the necessary timeframe.

In addition, the AER would have oversight of the treatment of the TNSP's assets that become part of the RAB. AEMO would also be required to report on its procurement of NSCAS in the NTNDP. Therefore the AER could clearly identify any incidents of TNSPs getting revenue from two sources for providing the same NSCAS. The AER would therefore be able to identify and exclude a contracted TNSP NSCAS asset from the TNSP's regulated asset base. This is supported by the new reporting requirements for TNSPs to include in its Annual Planning Reports information both the current level of NSCAS capability that can be provided on its network, and how it proposes to address any relevant NSCAS need as identified in the most recent NTNDP.

7.4 Commission's conclusion

The Commission concludes that:

- TNSPs should not be precluded from tendering with AEMO to provide NSCAS within their own regions;
- AEMO should be able to acquire NSCAS from persons other than Registered Participants; and
- all providers of NSCAS should be required to meet the requirements in the Rules, and AEMO would consult on the obligations and standards to apply.

8 Deployment of NSCAS

NSCAS will cover services deployed either by AEMO or by a TNSP. In either case, AEMO will be required to model the deployment of those services in network constraint equations used in its central dispatch and PASA processes in order to improve dispatch and pricing outcomes and to better manage power system security and reliability. This chapter discusses the appropriate arrangements for assisting AEMO in deciding how to model, and when to deploy, such NSCAS services.

8.1 Rule change proponent's view

AEMO stated that TNSPs are not presently obliged to provide it with information about network support agreements they have.⁶⁰ AEMO considered that this arrangement diminishes its ability to achieve its power system security obligations through the central dispatch and PASA outcomes.⁶¹

Therefore, AEMO proposed that NSPs be obliged to update it with relevant information on their NSCAS provided under network support agreements. AEMO's proposal would oblige NSPs to provide:

- a description of the NSCAS including details of:
 - the purpose for which it has been acquired;
 - the relevant connection points;
 - the quantity that can be provided;
 - the notice that is required before enablement of the service;
 - once enabled, the time to respond to a usage instruction; and
 - communication protocols related to enabling and usage and notification of changes to service availability;
- the availability of the NSCAS including any possible availability restrictions and whether other parties (such as AEMO) would be able to use the service;
- advice on any changes to the formulation of network limits to reflect the enabling or usage of the service; and
- where relevant, details of how and when the service could be dispatched by AEMO.

⁶⁰ AEMO Rule Change Request, p. 27.

⁶¹ Ibid.

AEMO also proposes to add two new obligations into the Rules. Firstly, an obligation on NSPs to negotiate in good faith with AEMO on the form of the instructions they would provide to AEMO on how to dispatch NSCAS (particularly in relation to scheduled or semi-scheduled plant). Secondly, an obligation for AEMO to develop and publish guidelines for the dispatch of NSCAS within central dispatch and PASA.

8.2 Stakeholder views

The NGF supports more transparency for TNSP network support agreements.⁶²

Grid Australia considered the Rules should only set out general types of information needed in recognition that specifics will vary depending on the particular circumstances of each network support agreement.⁶³

8.3 Commission's analysis

In making an assessment of the potential gap between the level of NSCAS provided by TNSPs and the identified NSCAS need for the national network, AEMO will be highly reliant on the information provided to it. In addition AEMO may direct or instruct any person to provide services to maintain power system security and reliability including NSCAS that is available to a NSP under a network support agreement. Therefore the Commission recognises that the absence of quality information on such services would diminish AEMO's ability to achieve its power system security obligations through the central dispatch and PASA processes.

While existing Clause 4.3.4(d) of the Rules obliges an NSP to advise AEMO of any ancillary services or similar services provided under any connection agreement, it does not ensure that all the information necessary to allow AEMO to carry out its functions is provided. Therefore the Commission agrees with AEMO's proposal to strengthen the information disclosure requirements for NSPs. The detailed information contained in the network support agreements would assist AEMO to maintain system security and improve the efficiency of its dispatch process by:

- making AEMO more aware of all the options available to it for providing a secure and efficient dispatch; and
- helping AEMO to formulate constraint equations to properly reflect the impact of the deployment of NSCAS.

The Commission considers that making this information available to AEMO is important because it will assist in dispatching these services and improve pricing outcomes, thereby enhancing investment outcomes. Also, it is appropriate that this provision applies to both DNSPs and TNSPs as it could be possible that DNSPs have

⁶² NGF submission to the first round of consultation, 3 September 2010, p. 7.

⁶³ Grid Australia submission to the first round consultation, 3 September 2010, p. 12.

network support arrangements or demand response capabilities. The application of the requirements to NSPs would also maintain the application of existing clause 4.3.4 (d).

The Commission also accepts the rationale for the additional two obligations proposed by AEMO. These are important to ensure that NSCAS is deployed in the correct manner and when it is economically efficient to do so. Also they will also improve the transparency of the arrangements.

The obligation on NSPs to negotiate in good faith with AEMO on the form of the instructions will ensure that those instructions are both comprehensive and practicable for AEMO to implement in central dispatch if required. Without this obligation, AEMO would be unable to dispatch NSCAS in the manner intended by the NSP and if AEMO were to exercise its discretion in dispatching the service, this could leave AEMO open to dispute by the NSP if their decision was wrong.

8.4 Commission's conclusion

The Commission agrees with AEMO's proposal and concludes that:

- NSPs should be required to provide relevant information on their NSCAS provided under network support agreements to AEMO;
- NSPs should be obliged to negotiate in good faith with AEMO on the form of the instructions they will provide to AEMO on how to dispatch NSCAS; and
- AEMO should be obliged to develop and publish guidelines for the dispatch of NSCAS within central dispatch and PASA.

9 Funding and cost recovery of NSCAS

9.1 Rule change proponent's view

Under the existing arrangements the costs for NSCS are recovered in two ways:

- NSCS costs incurred by TNSPs are recovered from users of their networks through the TNSPs' regulated transmission charges;⁶⁴and
- NCAS procured by AEMO are recovered from all Market Customers in the NEM on a pro-rata basis through market charges.⁶⁵

AEMO considered the existing cost recovery arrangements for NCAS it procures are inappropriate because service costs are not recovered from those receiving the benefit.⁶⁶ AEMO has proposed that costs for NSCAS procured by it should be recovered from Market Customers in benefiting regions on the basis of the proposed Regulation Benefit Ancillary Services Procedures.

AEMO has also proposed that where TNSPs provide NSCAS through tender to AEMO that this would be treated as non-regulated revenue.

9.2 Stakeholder views

Stakeholders generally agreed with the proposed funding and cost recovery arrangements.

The NGF considered that TNSPs should fund NSCAS procured by AEMO given that it is their responsibility to procure NSCAS.⁶⁷ That is, the same cost recovery approach should be used whether or not the need was addressed by the TNSP or by AEMO.

9.3 Commission's analysis

The Commission considers that the costs of AEMO procuring NSCAS should be recovered from the Market Customers in benefiting regions, rather than from the network users in the region where the cost is incurred. For example, it is quite possible that procuring NSCAS in an exporting region could increase the transfer capability of an associated interconnector. This could benefit the Market Customers in the importing region, while under the current arrangements the costs would be recovered from

⁶⁴ Clauses 6A.6.6 and 6A.6.7 allow TNSPs to recover capital and operating expenditure such that they comply with all applicable regulatory obligations or requirements associated with the provision of prescribed transmission services and maintain the quality, reliability and security of supply of prescribed transmission services and of the transmission system through the supply of prescribed transmission system.

⁶⁵ Clause 3.15.6A(c) of the Rules.

⁶⁶ AEMO Rule Change Request, p. 30.

⁶⁷ NGF submission to the first round of consultation, 3 September 2010, p. 7.

network users in the exporting region. The proposed change by AEMO would, in this case, shift the cost of procuring NSCAS to the beneficiaries.

The beneficiaries of procuring NSCAS may not always be immediately obvious. Therefore, the Commissioning agrees that AEMO should be required to develop Regulation Benefit Ancillary Services Procedures. These procedures should be developed under consultation with stakeholders, in accordance with the Rules consultation procedures.

With regard to NSCAS costs incurred by TNSPs, the Commission considers that the existing framework for determining how TNSPs recover their network expenditure should continue to apply. That is, such costs would be treated the same as all network expenditure and recovered through the TNSPs' regulated transmission charges. The Commission notes that it has recently made a draft Rule determination in relation to inter-regional transmission charging which, if the Rule was made, would enable TNSPs to charge customers in adjacent regions the costs of any network assets (including NSCAS) which provide inter-regional transmission capability. Where a TNSP provides NSCAS through tender to AEMO, the costs should be treated as non-regulated revenue.

9.4 Commission's conclusion

The Commission agrees with the AEMO proposal and concludes that:

- the costs for NSCAS procured by AEMO should be recovered from Market Customers in benefiting regions on the basis of the proposed Regulation Benefit Ancillary Services Procedures;
- in accordance with the consultation procedures under the Rules, AEMO would develop Regulation Benefit Ancillary Services Procedures in order to determine the beneficiaries when NSCAS is procured;
- where a TNSP provides NSCAS through tender to AEMO, the costs would be treated as non-regulated revenue; and
- NSCAS costs incurred separately by TNSPs are recovered from network users through the TNSPs' regulated transmission charges.

Abbreviations

ACCC	Australian Competition & Consumer Commission
AEL	Alinta Energy Limited
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
COAG	Council of Australian Governments
Commission	See AEMC
DNSP	distribution network service provider
MCE	Ministerial Council on Energy
MNSP	market network service provider
NCAS	network control ancillary services
NECA	National Electricity Code Administrator
NEL	National Electricity Law
NEM	national electricity market
NEMMCO	National Electricity Market Management Company
NEO	National Electricity Objective
NER	National Electricity Rules
NGF	National Generators Forum
NMAS	Non-Market Ancillary Services
NSCS	Network Support and Control Services
NSCAS	Network Support and Control Ancillary Services
NSP	network service provider
NTNDP	National Transmission Network Development Plan

NTP	National Transmission Planner
PASA	Projected Assessment of System Adequacy
RAB	Regulatory Asset Base
RIT-T	regulatory investment test for transmission
Rules	See NER
TNSP	transmission network service provider

A Summary of issues raised in submissions

Stakeholder	Issue	AEMC Response
Planning and procurement		
AEL	Concerned for the lack of responsibility for maximising inter-regional benefits of NSCAS and that no one has an obligation to undertake market benefit projects. p. 2.	The Commission notes that under the proposed arrangements the NTNDP will identify "NSCAS needs" based on market benefits as well in relation to system reliability and system security. The Commission expects that this would encourage NSCAS that delivers market benefits, including interregional benefits. In addition, the Commission notes that the AEMC can consider requirements for market benefit projects in considering whether to exercise its LRPP, potentially requiring a TNSP to perform the RIT-T on projects that deliver interregional benefits.
Hydro Tasmania	Concerned for the lack of responsibility for maximising inter-regional benefits of NSCAS. p 3.	As above.
AEL	Concerned about the 18 month delay between AEMO identifying the need for NSCAS (to allow TNSPs to procure the NSCAS) and when AEMO procures the NSCAS. AEL are concerned that this may mean that the reliability and security of the power system may be compromised. p. 2.	The Commission considers that increased flexibility can be introduced by requiring AEMO to identify a date when it will consider whether: <ol style="list-style-type: none"> 1. NSCAS is still needed for security and reliability of supply; and 2. whether the TNSPs intend to provide that NSCAS within a suitable time frame.
AER	Considered that AEMO is financially neutral between non-network and network based solutions, and its proposed solutions are likely to be efficient. p. 2.	The Commission notes the comments.

Stakeholder	Issue	AEMC Response
Grid Australia	Considered AEMO's proposed ongoing role in the procurement of NSCAS is inconsistent with the COAG response to the Final Report of ERIG, cited in MCE correspondence to AEMC, 3 July 2007. ⁶⁸ p.5. Considered that TNSPs should be the sole provider of NSCAS. The LRPP and AEMO power of direction would provide a sufficient safety net. p. 6.	The Commission agrees that the TNSPs should be the primary entities responsible for the procurement of NSCAS. However, the Commission considers AEMO should be able to procure NSCAS in order to maintain system reliability and security in a similar manner to its powers of direction.
Transend	Consider that TNSPs are able to effectively provide the most efficient technical envelope within which AEMO operates the system to ensure system security, and is therefore best placed to provide these services. p. 1.	As above, the Commission agrees that the TNSPs should be the primary entities responsible for the procurement of NSCAS.
Grid Australia	Noted that there is a disconnect between the spot trading benefits which AEMO pursues in real time, and the economic benefits pursued under the RIT-T, which are based on underlying costs. Therefore, Grid Australia considers that AEMO should not be responsible for procuring NSCAS based on market benefits. p. 8.	The Commission notes this comment and agrees that AEMO should only be able to procure NSCAS to address a system reliability or system security issue.

⁶⁸ Available from http://www.ret.gov.au/Documents/mce/_documents/MCE_Direction_to_AEMC20070713112430.pdf

Stakeholder	Issue	AEMC Response
Grid Australia	<p>Considered that the role for AEMO to procure NSCAS as a last resort is:</p> <ul style="list-style-type: none"> • inefficient, by maintaining confusion over accountabilities; • inconsistent, with TNSPs accountability for assessing the relative efficiency of both network support and network investment options; and • unnecessary, with COAG's requirements. <p>In addition, under the LRPP the AEMC can require a TNSP to conduct a RIT-T when it has identified a need for a project that is otherwise unlikely to proceed. Grid Australia considered that the LRPP was specifically considered as part of the AEMC's determination on the National Transmission Planner, with this power being left with AEMC, rather than with AEMO/NTP.⁶⁹ p. 9-10.</p>	<p>AEMO's role in procuring NSCAS would be limited to addressing system reliability or system security issues. This ability for AEMO to intervene would be similar to its powers of direction. These issues are discussed further in chapter 5.</p>
Grid Australia	<p>Considered that it is inefficient to have two last resort frameworks both operating with respect to the provision of network services, and is not good regulatory practice. p. 11.</p>	<p>The ability for AEMO to procure NSCAS to address system reliability and system security issues would be consistent with AEMO's existing obligations and functions.</p>

⁶⁹ AEMC National Transmission Planning Arrangements - Final Report to MCE, 30 June 2008, p.78.
<http://www.aemc.gov.au/Media/docs/National%20Transmission%20Planner%20Final%20Report%20to%20MCE-448faa16-c4c0-4f52-a922-114975692985-0.pdf> (accessed 18 August 2010).

Stakeholder	Issue	AEMC Response
Hydro Tasmania	Concerned that the first National Transmission Statement did not include a detailed model of Tasmania and, therefore, would not be useful for identifying NSCAS needs within Tasmania. p. 2.	As noted above, TNSPs would be the primary entities responsible for the procurement of NSCAS. It is also noted that the NDNTP would be different to the National Transmission Statement and that AEMO has consulted widely with stakeholders on the scope and purpose of the NDNTP.
Hydro Tasmania	Concerned that the proposed 18 month period allowed for the TNSP to respond from an NSCAS being identified in the NTNDP is inflexible and may become a target. p. 3.	The Commission notes the concerns and is proposing a more flexible arrangement (discussed in chapter 5).
NGF	The process for procuring NSCAS relies on information contained in the NTNDP and outcomes from the RIT-T assessments, which are untested instruments. That is, that the RIT-T is applied in a in an unbiased way and that the NTNDP provides all the information stakeholders need in relation to NSCAS. p. 1.	The Commission notes the NGF's concern but expects that AEMO and the AER, who have responsibility for the NTNDP and the RIT-T respectively, will monitor the performance of these mechanisms with the objective of improving their effectiveness.
NGF	Concerned that there is no evidence that the current arrangements are inefficient. In particular whether the prices paid by AEMO will be efficient. p. 3.	For reasons as discussed in this draft Rule determination, there are aspects of the current arrangements that would benefit from clarification and can be improved. The Commission considers that the proposed arrangements should be monitored and, if AEMO procures a significant quantity of NSCAS, a future investigation should occur to determine if this has been efficient.
NGF	Concerned that the proposed 18 month period allowed for the TNSP to respond from an NSCAS being identified in the NTNDP is inflexible and may become a target. p. 9.	The Commission notes the concerns and is proposing a more flexible arrangement (discussed in chapter 5).

Stakeholder	Issue	AEMC Response
NGF	Concerned that a large amount of communications is required between AEMO and the TNSPs to ensure that there are no gaps in the planning and procurement of an efficient amount of NSCAS. This concern arose because the focus of TNSPs is intra-regional while the focus of AEMO is inter-regional. p.1, 4 & 7.	The Commission notes the NGF's concern but expects that AEMO and the AER, who have responsibility for the NTNDP and the RIT-T respectively, will monitor the performance of these mechanisms with the objective of improving their effectiveness.
NGF	Concerned that it remains unclear whether AEMO should only be viewed as a "safety net provider" or "last resort provider" of network services. Such a role description may falsely imply that AEMO take minimalist action. Over time AEMO may become more and more reluctant to procure these services when a genuine unmet need arises. p. 4.	The Commission considers that the clarification that AEMO would procure NSCAS to address system reliability or system security issues would go towards addressing this concern.
Definition and objective		
Department of Infrastructure, Energy and Resources (Tasmania)	Considered that the definition of NSCAS should include system inertia it can act as a substitute for frequency control ancillary services. p. 1.	The Commission considers that the proposed definition is sufficiently broad to accommodate system inertia. The Commission notes that AEMO is presently monitoring this issue and there may be more efficient ways for inertia to be provided than through network support agreements, however, consideration of this issue is likely to be outside the scope of this Rule change request.
Grid Australia	Concerned that the definition of NSCAS may be unintentionally broad. p. 11.	The draft Rule clarifies the definition of NSCAS.

Stakeholder	Issue	AEMC Response
Hydro Tasmania	Considered that the definition of NSCAS should include system inertia it can act as a substitute for frequency control ancillary services. p. 2.	The Commission considers that the proposed definition is sufficiently broad to accommodate system inertia. The Commission notes that AEMO is presently monitoring this issue and there may be more efficient ways for inertia to be provided than through network support agreements, however, consideration of this issue is likely to be outside the scope of this Rule change request.
NGF	Concerned that the proposed definition of NSCAS is defined in terms of spot market trade, rather than market benefits, and is therefore less efficient. p. 6.	The Commission notes the comments and the draft definition of NSCAS procured by the TNSPs is expressed in terms of market benefits, to be consistent with the RIT-T applied to transmission investments.
Transend	Considered that the definition of NSCAS should include system inertia it can act as a substitute for frequency control ancillary services. p. 2.	The Commission considers that the proposed definition is sufficiently accommodates system inertia. The Commission notes that AEMO is presently monitoring this issue and there may be more efficient ways for inertia to be provided than through network support agreements, however, consideration of this issue is likely to be outside the scope of this Rule change request.
Provision of NSCAS		
AEL	Consider that the current arrangements that allow TNSPs to effectively procure free NSCAS under mandatory service acquisition of reactive power are not necessary efficient. Consider that market arrangements should be in place for the provision of these services. p. 1.	The Commission notes these comments but considers that they are out of the scope of this Rule change proposal.

Stakeholder	Issue	AEMC Response
Hydro Tasmania	Considered that TNSPs should be prohibited from tendering to AEMO to provide NSCAS within their own regions. p. 3.	The Commission considers that ideally TNSPs should not be able to tender to provide NSCAS in their own regions to avoid the perception of double dipping. However, this may significantly reduce the number of available NSCAS sources, which in turn would reduce competition. Therefore, on balance the Commission considers the benefits of increased competition is likely to outweigh the risk of TNSPs double dipping.
AEL	Consider that the obligations on TNSPs should be increased such that they are required to meet the NSCAS needs identified in the NTNDP. p. 3.	<p>The NTNDP is a planning tool and there may be valid reasons, as circumstances change, why it should not be a definitive trigger for investment. The Commission considers that it is up to the individual TNSPs to determine their own investment decisions so that they may meet the required standards, licence conditions and other regulatory obligations. The Commission considers that the ability for AEMO to procure NSCAS to maintain system reliability and security provides a sufficient safety net.</p> <p>The Commission considers that the proposed approach is consistent with the COAG response to the Final Report of ERIG, cited in MCE correspondence to AEMC, 3 July 2007.⁷⁰</p>
AER	Allowing TNSPs to participate in AEMO's tender process should promote competition and lower costs for NSCAS. p. 1.	Comments have been noted.
AER	TNSPs will only have limited opportunities to obtain a regulated return on assets that it also offers to AEMO as NSCAS. p 2.	Comments have been noted.

⁷⁰ Available from http://www.ret.gov.au/Documents/mce/_documents/MCE_Direction_to_AEMC20070713112430.pdf

Stakeholder	Issue	AEMC Response
Grid Australia	Considered that it was important that non-registered participants be required to comply with the Rules or similar arrangements. p. 11.	The Commission agrees that AEMO should be able to acquire NSCAS from persons other than Registered Participants. However, the Commission considers that AEMO should consult on the obligations and standards that will form part of the associated tender documents, and that these obligations and standards should reflect the requirements in the Rules.
NGF	Considered that it was important that non-registered participants be required to comply with the Rules or similar arrangements. The NGF recommended that AEMO be required to consult on the obligations and standards for non-Registered Participants. p. 6.	The Commission agrees that AEMO should be able to acquire NSCAS from persons other than Registered Participants. However, the Commission considers that AEMO should consult on the obligations and standards that will form part of the associated tender documents, and that these obligations and standards should reflect the requirements in the Rules.
NGF	Consider that the mandatory provision of reactive service by generators does not lead to efficient outcomes. p. 1.	Comments have been noted.
NGF	Concerned that the data asymmetries that exist between the TNSPs and generators may lead to an uneven playing field. p. 7.	Comments have been noted.
Deployment of NSCAS		
Grid Australia	Considered that the Rules should only set out general types of information that are needed as the specific details may depending on the particular circumstances of each network support agreement. p. 12.	The Commission considers that AEMO needs to have access to the information contained in the network support agreements to enable it to maintain the system in a secure and reliable operating state.

Stakeholder	Issue	AEMC Response
NGF	Considered that there needs to be more transparency for TNSP network support agreements. p. 7.	The Commission notes the comment but considers that there needs to be transparency between AEMO and the TNSPs, in order for AEMO to effectively operate the market, and with the AER in order to ensure the appropriate regulation of the TNSPs.
Funding and cost recovery		
AER	Noted there is a risk of TNSPs double dipping (i.e. receiving regulated revenue and then providing the service competitively through AEMO) but considered that this risk is not material. p. 2	The Commission notes the comments.
Grid Australia	Considered any risk of TNSPs double dipping could be managed through guidelines. p. 12.	The AER would have oversight of the TNSPs cost recovery and considers that the risk of double dipping would be low.
Hydro Tasmania	Supported recovering costs from Market Customers in the benefiting regions, but reserve comment on the proposed Regulation Benefit Ancillary Services Procedures until they are publically available. p.2.	The Commission notes the comments.
NGF	Considered that TNSPs should fund NSCAS procured by AEMO given it is their responsibility to procure NSCAS. p. 8.	As discussed in chapter 9, the costs would be recovered from Market Customers that benefit from the service.
Transend	Consider that the Regulation Benefit Ancillary Services Procedures need to consider the implications of Basslink as a market network service provider. p. 1.	The Commission notes the comments.

Stakeholder	Issue	AEMC Response
Other Issues		
NGF	Concerned discretion would be provided to AEMO in the establishment and application of the relevant procedures and guidelines. p. 8.	AEMO would only procure NSCAS to address system reliability or system security issues. Any of the relevant guidelines would also be developed in consultation with stakeholders.