

## Memorandum

To: National Generators Forum  
Cc: Tony Callan and Roger Oakley  
From: Euan Morton and Angela Moody  
**Subject: Brief response to AEMC CMR paper dated 2 May 2008**  
Date: 16 May 2008

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### 1 Introduction

The National Electricity Rules (Rules) provide a negotiation framework for connection agreements that allows for the funding of specific network augmentations to relieve network constraints and to signal the impact of generator/large customer locational decisions.

These provisions provide generators with the opportunity to fund specific network augmentations to reduce the likelihood of network constraints and/or to maintain a defined level of network access. Due to administrative and efficiency limitations, these provisions have proved to be unworkable (i.e. yet to be used by participants) and/or will not necessarily ensure emerging congestion is adequately managed.

National Generators Forum (NGF) has engaged Synergies Economic Consulting (Synergies) to review the Australian Energy Market Commission's (AEMC) *Congestion Management Review: Exposure Draft – Arrangements for Recouping Costs for Participant Funded Network Augmentations* (Exposure Draft) in light of the issues raised in Synergies' report on Market Access.<sup>1</sup> The NGF has sought a brief note to provide a "placemaker" with the intention that, subject to more detailed and considered work being undertaken by the NGF a more complete response could be provided in the future.

This note is structured as follows:

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<sup>1</sup> Synergies Economic Consulting (2007). *Market Access: Report to National Generators Forum*. December.

- section 2 provides an overview to the role of firm access under the Rules and the limitations of the current framework;
- section 3 discusses the proposed adjustments to Section 5.4A identified by Synergies; and
- section 4 discusses the Rule changes proposed in the Exposure Draft to address the recoupment of costs for participant funded augmentation.

## 2 Firm Access and Limitation of Current Obligations

While Transmission Network Service Providers (TNSP) are not obligated to provide firm access to generators/customers in every case, the importance of providing some form of firmer access has been acknowledged throughout the development of the National Electricity Market (NEM).

At the time of seeking authorisation of the National Electricity Code (the Code) under the *Trade Practices Act 1974* and approval of the Code as an industry access regime, an implicit access right associated with connection was recognised. That is, once negotiated, the right to network capacity (defined as system output capacity) should not be adversely or materially affected by a subsequent network user. As noted by the National Grid Management Council:

It is important that the Network Service Providers and parties seeking to establish connection negotiate a connection agreement that meets the needs of the Connection Applicant without adversely or materially affecting the levels of service and quality of supply received by other network users<sup>2</sup>.

This right was also recognised by the Australian Competition and Consumer Commission (ACCC) in its decision on the application for authorisation. The ACCC specifically noted that<sup>3</sup>:

...(it) considers that commercial incentives and the Code arrangements provide the opportunity for negotiation of firm access and other access arrangements by generators. Firm access should provide public benefit by allowing for greater certainty and identifying and valuing network constraints such that the network may be enhanced as required.

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<sup>2</sup> National Grid Management Council ( ). Application for Authorisation. p. 58.

<sup>3</sup> ACCC (1997) *Application for Authorisation - National Electricity Code*. December, p. 142.

Consistent with the previous Code, the current Rules provide generators with an opportunity to establish or modify a network connection and to have access to the network services provided by the national grid networks.. For example:

- clause 6A.9.1 outlines the principles relating to negotiating access to negotiated transmission services;
- clause 5.3.5 addresses the level of information to be provided by the connection application to enable the TNSP to assess the technical performance and costs of the required connection. TNSPs are also required, in order to maintain levels of service and quality of supply to existing registered participants, to consult with NEMMCO and other registered participants with who it has connection agreements, if it believes that compliance with the terms and conditions of those connection agreements will be affected;
- clause 5.1.3 (c) and section 5.1.1 set minimum standards of performance that a network service providers must meet including the level and standard of performance of power transfer capability. It is understood a network service provider can meet these minimum standards without it necessarily following that a generator will always be able to transfer power from its generating units into the network; and
- clause 5.4A<sup>4</sup> provides for the negotiation of compensation in the event the generator is constrained off below the level of service and capability of the network agreed in the connection agreement by another generator that has agreed to pay compensation to gain non-firm access.

Despite the inclusion of these provisions, particularly clause 5.4A, there has been limited scope for generators to negotiate firmer access. As noted by the AEMC, no agreements or payments pursuant to clause 5.4A have been implemented to date<sup>5</sup>. This may be attributed to the following efficiency and administrative limitations associated with the payment of compensation:

- unless these provisions are applied widely, compensation arrangements would prove to be ineffective as in some cases there would be no counterparty for the risk of constrained off to be hedged against;

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<sup>4</sup> The combination of clauses 5.3 to 5.4A are designed to allow a generator to elect to gain access from fully firm, at system normal, to fully non-firm and to pay the necessary amounts to the NSP and incumbents so that the incumbents are kept whole financially up to their agreed level of access. It also allows for economic development of the network since a two or more generators can share apparent firm access (at least financially) with the generator TUOS payments funding necessary compensation between the parties.

<sup>5</sup> AEMC (2008) *Congestion Management Review-Exposure Draft: Arrangements for Recouping Cost for Participant Funded Network Augmentations*. May. p 2.:

- insufficient guidance provided by the regulatory environment as to the operation of the existing arrangements, thereby creating uncertainty for both TNSPs and generators;
- there are no incentives for TNSPs to negotiate such arrangements; and
- the dispute resolution machinery has not been effective.

The failure of these arrangements to be adopted has broader implications for the operation of the NEM. Through the limited use of these regulatory instruments, particularly the explicit pricing of congestion, new generators do not face the full costs associated with their investment decisions. Without clear investment signals, these generators cannot reasonably be expected to make optimal investment decisions that meet the objectives of the National Electricity Law.

### 3 Proposed Adjustments to Section 5.4A

Given the provisions in the Rules and these limitations with clause 5.4A, Synergies has expanded the two possible models previously presented to the NGF to further clarify the rights of generators when new generation investment occurs.

These models aim, through the introduction of a pricing signal for generator locational investment decisions, to secure efficient and timely network and generation investment to alleviate or avoid congestion in an efficient manner. In doing so, both of these models, would clarify the operation of rule 5.4A and overcome the key limitations of the current approach as new connections would be required either to fund transmission investment or to compensate existing users.

Both these models now recognise legitimate generator expectations of a defined level of access being assigned via their connection agreement with the TNSP.

Both models have been developed at a conceptual level but provide at a high level a basis for assessing the relative merits of the two approaches. Further work will be required in this regard.

A brief outline of the expanded models is outlined below.

#### *Strong Model*

In the event of a an incumbent generator (ie generators with a connection agreement with a defined level of access), being constrained off, through the actions of a third party, compensation would be paid to the incumbent generator/s,.

This right to compensation would need to be clearly defined *ex ante* in terms of agreed maximum frequencies, duration and timing of congestion. It would also extend to circumstances where the generator's access is reduced due to the actions of a new generator access the network or the TNSP implementing a significant network charge.

This approach may be problematic as the opportunity costs of all generators would need to be defined *ex ante* potentially on a real time basis to drive appropriate behaviour.

### *Weak Model*

Under this model, a generator would be able to fund network augmentations that are privately rather than socially efficient (i.e. justified in terms of reliability or market benefits)<sup>6</sup> and have that contribution formally recognised. This may be through the negotiated connection agreement.

Unlike the strong model, the generators would have no access to compensation for being constrained off. However, if a new generator connected to the network and thereby reduced network capacity to the incumbent generator, it would be required to pay at the discretion of the incumbent generator either:

- a contribution to the generator based on the original cost of the augmentation of the network. This payment would effectively represent the new generator paying the incumbent generator for the capacity it wishes to use based existing capacity in the network; or
- a contribution to the incumbent generator representing the capital costs of augmenting the network (or augment the network at its own cost) so the incumbent generator's existing access rights are maintained and the impact of the new connection is removed.

In practice, the weak model is more likely to be able to be developed and implemented in a manner compatible with the NEM.

## **4 Proposed Rule Changes**

Whilst the Exposure Draft acknowledges the limitations of the current arrangements and the need to clearly provide for the recoupment of capital costs, the proposed Rule

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<sup>6</sup> The nature of this test would be dependent upon the regulatory test that was in place at the time.

change does not address the administrative and efficiency limitations of the current arrangements.

The proposed Rule changes, sections 5.4A and 6A.9.1, focus solely on the provision of reimbursement of capital costs where network access is shared via the renegotiation of negotiated transmission service charges. Whilst the proposed amendments will permit the recognition of another party utilising network capacity through adjusted network charges, they will not:

- address the free-rider problem;
- ensure the network is augmented to recognised the implicit access rights of existing users;
- facilitate the negotiation or payment of compensation (intra-regional hedges);
- increase workability of the access principles contained in the Rules, as the proposed changes do not address participant motivations/incentives; or
- ensure generators face the full costs of their locational decisions.

Further the proposed Rule changes will not improve current market inefficiencies which limit the realisation of the NEL objective. For example, the proposed Rule changes will not encourage the explicit pricing of network congestion. Failure to do so will result in the long term interests of consumers not being fully realised as generators will not face the full costs associated with their investment decisions.

Each of these issues could be addressed through either of the models identified in our previous report (and as expanded here), although the weak model is more likely to be able to be implemented in the current NEM framework.