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24 February 2009

Chairman
Australian Energy Market Commission
Level 5, 210 Elizabeth Street
Sydney, NSW, 2000

By email: submissions@aemc.gov.au

Dear Dr Tamblyn,

AEMC REVIEW OF ENERGY MARKET FRAMEWORKS IN LIGHT OF CLIMATE CHANGE POLICIES - INTERIM REPORT

The National Generators Forum (NGF) appreciates the opportunity to provide a submission in response to the Interim Draft Report. We are pleased that the Australian Energy Market Commission (AEMC) has identified generation capacity short-falls in the short-term, remote connection, congestion management and retailing as the key areas for further review. The NGF agrees these are the most pressing issues occupying the minds of its members in the context of the anticipated impacts of the federal government's climate change policy agenda.

In particular, we highlight in Section 1 the potential implications for supply reliability of an inadequate quantum of transitional assistance under the Carbon Pollution Reduction Scheme (CPRS). However, resolution of the other key risk areas identified by the AEMC will also be critical in ensuring adequate supply reliability under climate change policies.

In this regard many NGF members are concerned that congestion may become an increasing risk, particularly under the expanded Renewable Energy Target (RET). It is not clear that existing investment and access arrangements will be sufficiently robust enough to manage this risk. If congestion risk becomes an increasingly unmanageable problem in the future this could have implications for investment and competition in the National Electricity Market (NEM). To help address this concern, we draw out the need for the AEMC to clarify and strengthen the existing access regime in Section 2.

A further important concern impacting supply reliability is the extent to which existing retail regulation will be able to pass through the significant and rapid changes in wholesale prices caused by the CPRS. The NGF is concerned that inadequate pass-through of carbon costs may have flow on implications for retail viability, contract market liquidity and consequentially, investment in generation. We discuss in Section 3 the need for Jurisdictions to urgently develop a consistent framework for tackling carbon pass through, and to have this in place in time for commencement of the first retail price reviews for regulated retail prices in 2010.

The NGF is supportive of the AEMC's intention to address first mover disadvantage related to remote connection, which we discuss in Section 4. While our members are leaning towards Option 2, we consider more flesh needs to be put around the various proposals before the NGF as a group can come to a fully informed position on any one of them. It should also be made explicit that each proposal should not discriminate between different generation technologies or emissions intensities.

Finally, while we broadly agree with the key risk areas the AEMC has identified for taking further in this Review, we have reservations about two areas it has removed from its issues list.

First, while NGF understands that various review processes are underway in gas markets examining risk settings, gas market design and emergency procedures, it is important that outcomes of these reviews are consistent with the increasing operational convergence between gas and electricity markets. As we discuss in Section 5, we urge the AEMC to keep a watching brief on evolving interactions in this regard.

Second, we also note that AEMC has decided not to further pursue system operational issues. However, as the generation mix over time moves away from coal fired generation under climate change policies, it is not clear whether ancillary services, including reactive and inertia, which are currently provided by these generators, can continue to be readily sourced for maintaining a secure network. We have some thoughts on how this issue can be addressed in Section 6 of the submission.

The NGF also briefly discusses in the final section of this submission its relative comfort with the existing market design. However, we note in this regard that the energy only design will be "stress tested" under climate change policies to a degree never before experienced. The AEMC will need to monitor closely the continuing ability of this market design to manage the new and evolving pressures created by climate change and in particular the degree to which it can sustain the viability of the NEM more generally.

If you have any questions in relation to any part of this submission please do not hesitate to contact me on 02 6243 5120.

Yours sincerely

John Boshier
Executive Director

1. Generation capacity in the short-term

Q1 Do you agree that the ability for NEMMCO to manage actual or anticipated transitory shortfalls of capacity is a significant issue that should be progressed further under this Review?

Q2 Are additional mechanisms required to complement the Reliability and Reserve Trader (RERT) and NEMMCO's directions powers, and what characteristics should such mechanisms have?

Q3 Do you have any views on the detailed design and implementation of additional mechanisms?

The NGF considers that there are three principal risk areas likely to impact supply reliability in the NEM as it transitions into a CPRS and RET environment. We discuss these briefly below.

Transitional assistance

First, the principal impact of a CPRS is to impose a substantial additional cost on emissions intensive generation, and such generation capacity currently makes up the majority of existing capacity in the NEM. To the extent high emissions generators cannot recover this cost they suffer declining profitability under a CPRS. Supporting debt providers recognising this will seek to recover the finance they have provided more rapidly; or if they are unable to do so, will sell the generation assets and shift their finance into more productive alternative sectors or industries. Emissions intensive generators may therefore quickly go out of business under a high carbon impost and if sufficient substitute lower cost new entrant generation capacity is not forthcoming in a timely manner, supply reliability may be put at risk.

A key focus of the transitional assistance package outlined in the White Paper is to reduce the risk of early exit. As we have outlined in its statement to the Senate Select Committee on Fuel and Energy however, the quantum of assistance put forward falls well short of the amount likely to be necessary to substantially reduce the potential for early exit. The risk to supply reliability therefore remains. While addressing the quantum of assistance is beyond the scope of the current Review, an acknowledgement by the AEMC of this as a substantial issue could be persuasive in the legislative process.

Carbon pass-through

The second key area which the NGF considers critical in ensuring supply reliability is the extent to which regulated retail tariffs allow carbon pass through. The NGF is pleased that the AEMC has acknowledged the significance of this issue in its Interim Report. To the extent retailers cannot pass through carbon costs into retail tariffs they will be exposed to unrecoverable wholesale costs. If sustained this will force retailers out of business or, alternatively, force them to act like a collective monopsony and squeeze contract prices below the level required by generators themselves to recover carbon related costs. Either way the contract market may dry and competition will be reduced as generators, retailers or both exit the market. Moreover, it is unlikely that new entry and investment will occur in the NEM if faced with a highly illiquid contract market.

The adverse implications for supply reliability may therefore be considerable if carbon-pass through is inadequately addressed under climate change policies.

Congestion

The third key factor affecting supply reliability under climate change policy is exposure to congestion risk. Modelling commissioned by the AEMC to inform this Review suggests congestion will increase significantly both between regions and within regions. It is therefore important that the AEMC examines the capability of existing arrangements to tackle this issue. We discuss this issue in some detail in Section 2.

Short-term intervention mechanisms

The NGF considers that provided the above issues are adequately resolved, and VOLL and market settings are appropriately readjusted over time, then energy supply should remain reliable under climate change policies.

As a general principle the NGF is not supportive of market intervention mechanisms to ensure reliability, such as the Reliability Emergency Reserve Trader (RERT). While attempting to minimize its distortion to normal market signals it is not clear that the RERT, given its inevitable focus on existing rather than new generation, can genuinely meet a significant reserve shortfall. Nor does it appear to provide sufficient incentives to encourage the demand side to come forward and participate.

As a consequence the NGF supports further examination of alternative mechanisms, some of which were examined as part of the Comprehensive Reliability Review, with focus on options which do not require substantial market design change and sit appropriately outside the market. We are aware that the AEMC has aligned its review into demand side participation (DSP) in the NEM with this Review. Therefore it may prove useful to use the outputs from the DSP Review to inform the design of a demand side mechanism (such as for standing reserve) that could address any significant shortfalls as they arise but must necessarily sit outside the NEM.

2. Augmenting networks and managing congestion

Q1 Do you agree that the issue of network congestion and related costs requires further examination in this Review to determine its materiality? This includes considering whether the existing frameworks provide signals that are clear enough and strong enough in the new environment where congestion may be more material. If not, what are your reasons for reconsidering this position?

The potential materiality of congestion under the CPRS and RET, and the extent to which existing frameworks are capable of addressing it, should be an important focus for this Review.

In its Final Report on the Congestion Management Review the AEMC noted that the impacts of climate change policy on existing market design "would be profound" and may "among other consequences, result in the emergence of material transmission congestion"[1]. Work undertaken for the AEMC by Roam consulting suggests congestion is likely to increase significantly under the Commonwealth Government's climate change policies, unless transmission investment can keep pace[2]. However, the NGF notes that the Roam study did not include any major proposed transmission upgrades beyond 2 years and hence the study must be interpreted with this limitation in mind.

[1] AEMC, Congestion Management Review, June 2008, p ix
[2] ROAM Consulting, *Market Impacts of the CPRS and RET*, A report prepared for the AEMC, December 2008, p 3

The NGF welcomes reforms to the transmission investment framework made by the AEMC, which focus amalgamating market and reliability benefits into a new regulatory investment test for transmission (RIT-T). However, a significant number of members are concerned that this framework may not be responsive enough if congestion increases rapidly, or shifts from one area to another under climate change policies.

A further concern is that the new RIT-T will be geared, as it has in the past, towards relieving congestion only where it affects reliability or has significant net market benefits. It is unlikely to include benefits which fall to a small number of individual participants. This means that unless there is a lack of low cost generation available on the uncongested side of a particular constraint to meet demand, then building out the constraint will be unlikely to release sufficiently low cost generation to be meaningful in terms of producing net market benefits. In addition, any reduction in the regional price brought about by the augmentation (the competition benefit) can only be counted in the RIT-T in so far as it leads to an increase in consumption (and if the constraint is between regions than the price increase in the exporting region must also be considered). This benefit is likely to be trivial in the context of highly inelastic demand typical of energy markets. As a consequence, the removal of congestion that affects only a small number of generators will in most circumstances simply amount to a wealth transfer between generators, or between generators or consumers, which cannot therefore be counted in RIT-T assessments.

Existing access provisions also cannot be relied upon, either to relieve congestion or protect participants from its impacts. While under the Rules generators can negotiate a firmer level of access with their transmission network service providers (TNSPs), the latter are in no way obligated to provide such access. The access provisions in the Rules are governed by a negotiation framework which requires only that access be provided on a "reasonable endeavors" basis only "up to" a maximum transfer capability. TNSPs are not legally obliged to provide access to a level that achieves that transfer capability at all times, regardless of whether participants help fund additional capacity. There is, consequently, no onus for TNSPs to provide participants with compensation when they are constrained off if they do not consider it reasonable to do so.

Moreover, while the Rules (5.3.5(d)) appear to provide the opportunity for TNSPs to impose a charge on new entrants if they connect and reduce the quality of access for other transmission users, they have not done so to date in the NEM. Perhaps they are concerned that an additional charge imposed on some participants and not others will conflict with Chapter 6A of the Rules (6A.1.3 (3)), which prohibits prevention or hindering of access to transmission services. The reasonableness test therefore appears to obviate the need for TNSPs to either contemplate firm access for participants, or impose any additional charge over and above normal access tariffs.

For the reasons outlined above many within the NGF are concerned that if congestion materially increases under climate change policies they may not be able to manage this risk under existing market arrangements. This could have adverse consequences of competition and investment if this turns out to be the case.

For example, generators affected by congestion in a material way may find it difficult to contract with retail participants, or will do so only at a lower volume and higher price then they otherwise might. This is because they cannot predict when or by how much they might be constrained off the network and therefore the extent to which they are able to meet their contract obligations (and thus are exposed to purchasing the shortfall at high spot prices). The potential uncertainty of access this engenders in the minds generators over the life of their investment, as well as affecting existing incentives to contract in a more immediate sense, is also likely to discourage new investment. At the same time, lower contract market liquidity and high prices could deter new retail entry. If therefore congestion becomes a substantive unmanageable risk for market participants under climate change policies, this may damage competition and supply reliability and increase delivered prices to consumers.

While views among the NGF differ as to how any increase in congestion might best be dealt with, there is broad agreement that existing access provisions within the Rules should be reviewed by the AEMC. As a first step the NGF would urge the AEMC to clarify interpretation of these provisions; in particular, the extent to which they in fact require or oblige TNSPs to provide a firmer level of access if requested do so by a connection applicant.

A second useful area for review is examining the tools or approaches the TNSPs would need in order to deliver the desired level of firmer access; for example, imposing additional charges on generators locating in congested parts of the network, or seeking compensation in lieu of such charges. In this regard we draw the attention of the AEMC to work commissioned by the NGF for input into the Congestion Management Review CMR, which outlines a number of such approaches which could strengthen the access provisions in respect of their ability to provide for firmer access[3]. While this work was not considered further by the AEMC in the context of its findings on the materiality of congestion in the CMR, this position may need to be re-examined in light of any expected material increase in congestion risk for participants under the new climate change reforms.

3. Retailing

Q1 Do you agree that the current inflexibility in the retail price regulatory arrangements is a significant issue that should be progressed further under this review? If not, what are your reasons for this position?

Q2 Do you agree that the limitations with the current ROLR arrangements are a significant issue that should be progressed further under this Review? If not, what are your reasons for this position?

Q3 Are there any additional options that could supplement the process currently under investigation to address these issues?

The NGF agrees with the AEMC's assessment that the current regulated retail price arrangements in each Jurisdiction will prove inadequate in dealing with the unpredictable wholesale cost changes brought about by the introduction of a price on carbon.

The inflexible nature of the current regulated regimes increases the risk of retailers being unable to pass through the full cost of the CPRS and enhances the likelihood of retailer distress which has negative implications for the entire market, including generators. The NGF is encouraged by the MCE's commitment to recommend to COAG that the AEMA be amended to allow for full pass through of carbon costs in each Jurisdiction, but is mindful that the details surrounding how this will be achieved have not yet been decided.

The NGF considers that there is a need to develop a set of principles across jurisdictions which would prescribe how carbon costs will be passed through, with the aim of addressing some of the inherent inflexibility of the current regimes. This would provide some much needed clarity and certainty to the market.

There is considerable urgency to move forward on this issue as the first retail price reviews are set to get underway later this year for the next regulatory pricing period commencing in 2010.

[3] Synergies Economic Consulting, Market Access, Report to the National Generators Forum, December 2007

4. Connecting new generators to energy networks

Q1 Do you agree that connection of new generators to energy networks is a significant issue and that should be further progressed under the Review? If not, what are your reasons for reconsidering this position?

Q2 Would any models identified in the Chapter ensure the more efficient delivery of network connection services? In particular, with relation to these models:

- How should the risks of connection be most appropriately spread across new connection parties, network businesses and end use consumers?
- How do the connection charges change for connecting new generation plant and what benefits may arise?
- How do the costs for end use customers' change and what benefits may arise?

Q3 Are there any other potential models that we should consider to address the issue?

The NGF agrees with the AEMC's view that multiple applications for connection could be better coordinated. A formalised centrally coordinated process would facilitate up front cost sharing of transmission connection assets, particularly where such costs are significant. This would help resolve first mover disadvantage and generate more timely investment in transmission. This will be of benefit in meeting climate change policy objectives.

NGF members have a range of views on the Options for remote connection proposed by the AEMC. The Open season approach, Option 1, is attractive in that it is most consistent with existing arrangements for transmission investment in assets which are not considered to form part of the shared network. That is, participants take the risk on transmission investment that can be considered to primarily benefit themselves; end users do not bear the costs of asset stranding. The transmission is sized purely to meet the needs of those participating in the open season process.

Its strength may also be considered its central weakness however, as it retains the traditional reactive approach to transmission investment. It does not attempt to assess the potential for future access seekers. This approach could therefore increase the overall costs of meeting climate change policy objectives for two reasons. First, it could lead to multiple lines being built incrementally over time which significantly exceeds the capital cost of a single line providing the same capacity. Second, it may considerably slow the ability of new entrants to enter the market over time since they will have to build additional transmission capacity to connect, rather than having such capacity available to them at time of connection.

In contrast, Option 2 or 3 have the benefit of being more strategic in the sense that some capacity will effectively be built before it is needed. But of course this also implies a level of stranding risk for consumers and centralized planning which may be considered inconsistent with traditional views the NGF has generally had that competitive generation should drive regulated transmission needs rather than the other way around. This is why Option 4, where consumers pay fully for the NERGs up front is an extreme which the NGF would be unlikely to support. Although the NGF understands that under this proposal consumers would recover the costs of the transmission project over time as new generators connect.

Nevertheless, Option 2, where at least half of the NERG is initially funded by generators, provides a greater level of discipline on efficient location and sizing of the NERG. Generators will be required to put their money on the table, and thus make a call on where and when they consider the best value can be obtained from constructing a NERG. Further discipline on the efficient location and sizing would also be provided by a high level cost-benefit analysis,

which we presume would be performed by the NTP. The NTP is in the best position to provide an independent evaluation of the possibilities. However, given that the NTP can only guide and not compel investment, the NGF expects that it would ultimately be the AER and not the NTP that would ratify a particular NERG.

The NGF intends to reserve its judgment until more detail is provided on the various proposals. In broad terms, however, we consider Option 2 provides the most reasonable compromise between, on the one hand, avoiding excessively subsidising remote generation, and on the other, providing a more strategic element to the transmission investment regime which is likely to improve its capability to respond to the needs of highly challenging climate change targets.

As a final point we urge the AEMC to make it explicit that all of the Options for NERGs are technology neutral. The approach should be available to all generation participants regardless of generation technology or emissions intensity.

5. Convergence of gas and electricity markets

Q1 Do you agree that the convergence of gas and electricity markets is not a significant issue in the eastern states and therefore should not be progressed further under this Review? If not, what are your reasons for asking us to reconsider this position?

The NGF disagrees with the AEMC view that convergence of gas and electricity markets is not a significant issue. We consider that the introduction of the CPRS will significantly increase the demand for gas and gas fired generation, which will bring closer integration of gas markets and electricity markets. A larger proportion of gas fired generation in the overall capacity mix will make electricity markets more vulnerable to reliability problems in the event of upstream gas market failures**.**

However, we do consider that a number of separate consultation processes currently underway, managed by VENCorp, examining various gas market design issues such as the introduction of a Bulletin Board (now complete) and Short Term Trading market, and Top End review of risk settings and investment in the Victorian gas market, provides sufficient opportunity for ensuring consistency between gas and electricity markets going forward. We anticipate the AEMO will now take over responsibility for these consultations and move them forward expeditiously.

In this regard, the current Top End review is of particular importance because it is examining whether existing AMDQ rights are sufficiently firm to encourage private investment in the Victorian Principal Transmission System (PTS). Many participants consider that the lack of firmness of these rights may lead to underinvestment in the PTS. This may compromise much needed infrastructure investment required to support the upsurge in gas fired generation expected in Victoria under a CPRS.

An explicit acknowledgement of this issue by the AEMC would re-establish much needed momentum for this consultation, which has stalled recently with other projects seemingly taking precedence.

6. Investing to meet reliability standards with increased use of renewables and system operation issues

Q1 Do you agree that the existing framework based on an energy only market design with supporting financial contracting is capable of delivering efficient and timely new investment, including fast response capacity to manage fluctuations in output resulting from larger volumes of intermittent wind generation? If not, what are your reasons for reconsidering this position?

Q2 Do you agree that the processes supporting the ongoing maintenance of this framework in respect of review and periodic amendment to the market settings, including the maximum market price, are robust? If not, what are your reasons for reconsidering this position?

Q3 Do you agree that operation of the power system with increased intermittent generation is not a significant issue and therefore should not be progressed further under this Review? If not, what are you reasons for reconsidering this position?

Energy Market Design

There are a range of perspectives within the NGF over the longer term viability of the energy only market model. However, there is broad agreement with the AEMC's current view that in light of the prevailing evidence surrounding the operation of, and investment in, the NEM that fundamental change to the market design at the present time is premature. Substantially re-engineering the market design at the same time as the most substantial policy reform to energy markets is about to get underway may significantly add to existing uncertainty already present for market participants, which is likely to be counterproductive. However, we do urge the AEMC to maintain a watching brief on market design issues as the CPRS and RET evolve over time.

As noted, review and periodic amendment to the market settings is the most appropriate way of ensuring supply reliability is maintained under an energy only market design.

System Operation

The NGF broadly agrees with this position, and further notes that the 5-minute energy market design although problematic in some other ways is much better suited to managing intermittent generation compared with market designs that might allow for longer dispatch intervals. We note, however, that a transition under climate change policy from high emission mostly (coal fired) generation to low emissions intermittent generation will require increasing level of frequency control ancillary services, inertia and reactive power. These services tend to be provided by base load coal fired generators, who currently tend to provide these in excess of that strictly necessary to meet their technical standards, to make up for deficit in availability of such services from other generators.

The NGF is concerned that some of these services, in particular reactive power and inertia, will no longer be provided under a CPRS because large coal fired generators will exit the market. The NGF proposes that a market be created for these services to maximise incentives for their provision. We consider this would have the following benefits:

- enabling connection of new generators to a standard consistent with individual business and investment decisions,
- new connection parties will be able to purchase ancillary services that ensure system reliability at a price which reduces overall plant costs,
- creates incentives for generators to provide additional capacity, including via plant upgrades where possible,
- increases economic life of plants that may otherwise have to close as a consequence of the CPRS; and
- Increases the economic efficiency of provision of ancillary services, as market will reveal those who can provide it at lowest cost.