9 January 2012

Australian Energy Market Commission
PO Box A2449
Sydney South
NSW 1235

Reference ERC0133

Dear Mr Bell,

The NGF welcomes this opportunity to respond to the consultation on AEMO's proposed Rule change for a "New Prudential Standard and Framework in the NEM". We followed the development of this new approach by AEMO and its consultants, Seed Advisory & Taylor Fry, as part of the Prudential Readiness Review of 2010. The review made apparent to association members the existing application of the credit limits methodology is not equivalent to the *"reasonable worst case"* as specified in the Rules. Therefore the NGF was therefore generally supportive of AEMO's proposed Rule change premised on concerns of the performance of the existing Standard.

It is our understanding the Rule change proposal seeks to replace the "*reasonable worst case*" calculation of a Maximum Credit Limit (MCL) with a level associated with 2% Probability of Loss Given a Default[1] (P(LGD)). Using the concept of P(LGD), the existing standard had proved to be 4%[2] over 2000-2010. The AEMO proposal aims to change the calculation of the MCL and the Prudential Margin to reduce this to 2% P(LGD) with approximately the same level of collateral provided by retailers. The proposal is appealing as it improves creditworthiness of the pool whilst using the same level of resources (collateral).

However, in contrast to the "reasonable worst case", this proposal enshrines a risk of short payment to creditors, to be specified in the Rules as 2% P(LGD). The NGF has concern over the justification of the proposed 2% benchmark as appears this has been selected for no other reason than retailers should post no more or less collateral than they do today. As a result of these concerns, we consider not just the concept of the Probability of Loss Given Default but its application, which is the percentage itself, to be under consultation. Our reason for this is given in response to the consultation questions.

This is not to suggest the NGF as pool creditors will parochially advocate pool debtors post an "inefficient" level of collateral to improve the standard just for our benefit. It is our contention that a robust credit regime will benefit all participants, if they be debtors, creditors or integrated businesses. A significant default in our industry will have severe implications for a number of counterparties due to transfer of market risks between participants. In addition, the NGF has competing objectives as it is in our interests for the prudential requirement[3] on retailers to be reduced to the lowest reasonable level whilst maintaining financial stability for the NEM as a whole. This is because reducing the Prudential

[1] Please note that Probability Loss Given Default is not the Probability of a Default in itself, but that should a default occur there will be insufficient collateral to cover pool debts of the defaulting party.
[2] Using the calculation of the Reduced MCL
[3] Prudential Requirement will refer to the aggregate collateral that must be provided by Pool Debtors to AEMO

Requirement will encourage additional retailers and provide opportunities for pool creditors to spread market risks amongst a greater number of debtor counterparties, even if there remains a credit risk.

In effect the NGF has split objectives in managing market risk and credit risk:

- Reduce the level of collateral to ease the Prudential Requirement on our counterparties; or
- Reduce the Probability of Loss Given Default to improve the creditworthiness of the NEM.

Considering these split objectives, the onus is on the NGF to investigate options of improving the creditworthiness of the pool without increasing the prudential Requirement on retailers.

Given our general support for the concept of P(LGD), the options open to the NGF are limited to changing the % P(LGD); the level of collateral; or the Credit Period[4].

In work completed for AEMO, analysis by Seed Advisory & Taylor Fry[5] (SEED) has shown shortening the cycle, whilst maintaining the 2% P(LGD), reduces the collateral Requirement on pool debtors by about 40%.

The NGF appointed SEED to supplement their analysis with an assessment of the Prudential Standard, (expressed in % P(LGD)), if the settlement cycle is shortened and the level of collateral maintained to that proposed under the Rule change (which is equivalent to that held today). The NGF did not request SEED to change the Reaction Period, although this may also be reduced to have a similar effect on the Prudential Standard, when expressed in %P(LGD).

The results from SEED[6] showed the Prudential Standard can be improved by reducing the Credit Period, to a P(LGD) of approximately 0.8%, if the same level of collateral is required to the Rule change proposal.

The table presents the results from SEED's work for AEMO / NGF and refers to this option as "*0.8% P(LGD) with SSC*". The table compares this to other options:

- Existing Standard or RMCL
- Rule change proposal "*2% P(LGD)";*
- The Rule change proposal accompanied with shorter settlement cycle "*2% P(LGD) with SSC*".

| | Existing standard | | | 2% PLGD | | | 2% PLGD with SSC | | | 0.8% PLGD with SSC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Collateral $M | Avg RMCL | Avg PM | Total | Avg Prudential | Avg PM | Total | Avg Prudential | Avg PM | Total | Avg Prudential | Avg PM | Total |
| NSW | 478 | 120 | 598 | 442 | 133 | 575 | 260 | 95 | 355 | 442 | 133 | 575 |
| QLD | 292 | 73 | 365 | 305 | 100 | 405 | 190 | 68 | 258 | 305 | 100 | 405 |
| SA | 119 | 30 | 149 | 100 | 33 | 133 | 67 | 25 | 92 | 100 | 33 | 133 |
| TAS | 83 | 21 | 104 | 75 | 20 | 95 | 50 | 19 | 69 | 75 | 20 | 95 |
| VIC | 259 | 65 | 324 | 251 | 71 | 322 | 143 | 52 | 195 | 251 | 71 | 322 |
| NEM | **1231** | **309** | **1540** | **1173** | **357** | **1530** | **710** | **259** | **969** | **1173** | **357** | **1530** |

| | Existing standard | | | 2% PLGD | | | 2% PLGD with SSC | | | 0.8% PLGD with SSC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Probability % | Average (LGD) $M | | Probability % | Average (LGD) $M | | Probability % | Average (LGD) $M | | Probability % | Average (LGD) $M | |
| NSW | 4.8% | 92 | | 1.8% | 146 | | 2.4% | $121 | | 0.8% | $155 | |
| QLD | 2.7% | 73 | | 2.6% | 62 | | 2.2% | $66 | | 0.6% | $106 | |
| SA | 3.2% | 44 | | 2.2% | 53 | | 2.1% | $53 | | 1.0% | $78 | |
| TAS | 4.7% | 14 | | 2.2% | 17 | | 1.2% | $27 | | 0.4% | $49 | |
| VIC | 4.1% | 44 | | 2.1% | 59 | | 2.0% | $64 | | 0.8% | $55 | |

[4] In this instance the Credit Period is the billing week, four weeks settlement and the Reaction Period totalling 42 days.
[5] The Prudential Standard in the National Electricity Market Final Report – August 2010
[6] Supplementary Report: the Prudential Standard in the National Electricity Market – January 2012

The results show that P(LGD) can be reduced by shortening the settlement cycle whilst maintaining the level of collateral, although the average loss given default increases. This is probably due to the skewness in the distribution of losses given a default, because the instances largest loss given default typically remains, even if the probability of loss given default is reduced.

Seed commented in their original report to AEMO there will, (due to the skewness of losses given default), remain a residual risk in using collateral based regime, unless an inefficient level of collateral may be held.

Please find following the NGF's specific answers to the consultation questions which assists to explain our position further.

***Question 1 Platform for Reform of Prudential Framework in the NEM***

*Does the existing architecture for protection from default in the NEM (as described in Chapter 2) constitute a sound platform from which meaningful reform to the Prudential Framework can be built? Does it remain an optimal architecture given the wider potential reforms contemplated in AEMO's Prudential Readiness Review? If not, what reforms should instead be considered prior to the adoption of the changes proposed by Proponent?*

**Answer:** Firstly the NGF wishes to clarify the intent of the question. If we consider the wider reforms considered under the AEMO Prudential Readiness Review, these included changing the requirements for cash, shortening the settlement cycle, management of shortfalls to creditors, participants electing to have a shorter Reaction Period and possibly some others, such as the use of Futures Offset Arrangements (FOAs). It is our contention that the Prudential Standard should be agreed upon prior to the implementation of further reforms, if these reforms are clearly separable from the Prudential Standard itself. For example, FOAs and requirements for cash are so, whereas shortening the settlement cycle or the reaction period (Credit Period) are inseparable because these will influence the Prudential Standard should we adopt that proposed in the Rule change.

***Question 2 Ambiguity of the existing Prudential Standard***

*Is the existing language of "reasonable worst case" ambiguous, and if so, should the ambiguity be removed from the Rules? Should the language in the Rules be replaced with a statistical measure that AEMO must use in developing their Procedures under consultation?*

*Over what timeframe should a Prudential Standard be upheld? (i.e. is it preferable to continue to seek to achieve the standard over the long-run course of several years, like the USE standard set by the Reliability Panel, or should the standard be upheld over short or even very short time frames?).*

**Answer:** This is a moot point. The NGF considers the "reasonable worst case" as specified in the NER is certainly not represented by the credit risk associated with the Reduced MCL. Whether or not the credit risk associated with the full MCL calculation (which is not widely used) is nearer to what one would consider to be a "reasonable worst case" is really in the eye of the beholder. In this instance AEMO, has provided sufficient evidence through the Prudential Readiness Review that a collateral based regime cannot efficiently hold enough security to eradicate credit risk from the NEM, such that the "reasonable worst case" definition, irrespective of its ambiguity, may be irrelevant.

***Question 3 Probability of Loss Given Default***

*Does the 'frequency-based' statistic described in AEMO's Proposal and the Readiness Review - the Probability of Loss Given Default - constitute a transparent, understandable statistic? Would its use improve the ability of risk-taking parties to manage their risk compared to the existing descriptive standard of "reasonable worst case" and/or the ability of AEMO to develop a more accessible, predictable Credit Limits Methodology? Is P(LGD) sufficiently separable as a Standard for protection from default from other variables that act to influence that protection, such as the actual and assumed Reaction Period?*

**Answer:** The Probability of Loss Given Default is a transparent and understandable metric, although it suffers from there being neither allowance for the probability of default and size of default. The inclusion of both would provide a more meaningful expression of credit risk for pool creditors, although the Prudential Readiness Review suggested such metrics are impractical.

The question asks whether the P(LGD) will improve the ability of risk taking parties to manage their risk compared to the existing Prudential Standard. In this instance the pool creditors are the risk-taking parties with AEMO managing this risk[7] by proxy through the NEM's gross pooling arrangements. The NGF considers as long as a gross pooling arrangement is mandated under law there is little that can be done (in addition to the current use of reallocations) to improve the ability of the pool creditors to manage this credit risk. This is why the whole intention of the Rules is to remove this risk from the arrangements, hence the "reasonable worst case" definition in the Rules. An obvious solution is for credit risk to be managed bilaterally between counterparties through a net pooling arrangement. With such a market design credit requirements are managed through bilateral contracts or through credit requirements agreed via voluntary futures exchanges. Please note such a change is not being advocated by the NGF, as to change the whole market design just to allow creditors free-hand to managing credit risk is unwarranted.

The question also asks whether the P(LGD) is sufficiently separable from the variables that act to influence that protection, such as the Reaction Period. The NGF considers the definition of P(LGD) is inseparable from the NEM's Credit Period, be that the Settlement Cycle or the Reaction Period. The further analysis by SEED showed that by shortening the settlement cycle whilst maintaining the current level of collateral affects the Prudential Standard when expressed in P(LGD). This is why the NGF considers this Rule proposal to be consulting not just on the new calculations but the variables that affect the resultant % P(LGD) calculation.

***Question 4 Additional Changes to Framework***

*Do the proposed accompanying changes to the Rules and potential changes to the Procedures41 best complement the introduction of the P(LGD)? Do these changes help to further the accomplishment of the NEO? These changes include:*

- *the introduction of the Outstandings Limit (OSL). This will replace calculation of the MCL, which will now float as the simple summation of the two calculated variables [OSL + PM];*
- *an iterative statistical approach to calculation of OSL and PM, using VF percentiles;*
- *a review of the application of load profiles to individual participants in calculation of OSL and PM;*
- *the introduction of seasonal adjustments in calculation of OSL and PM;*
- *the removal of the option for a Reduced MCL.*

*What guiding principles for the construction of AEMO's Procedures, if any, should be built into the Rules beyond or instead of those proposed by AEMO?*

**Answer:** The NGF considers a prudential standard that incorporates load profiles and seasonal variances to be more efficient in the utilisation of the collateral that must be provided by pool debtors. This should lead to better accomplishment of the NEO.

***Question 5 Proposed Standard***

*In the context of the complete proposal, is a setting of 2% P(LGD) optimal with regard to maximising the achievement of the NEO? Would such a value adequately incentivise retailers to take on an appropriate level of risk? What value could be used instead, and how/why would such a different value better meet the NEO compared to the proposed setting?*

[7] We note the Reallocation arrangements that allow for receivers to accept credit risk

**Answer:** This is a difficult question for the NGF to answer because, if the Credit Period is shortened whilst adopting the new P(LGD), we do not know if reducing the Prudential Requirement or improving the Prudential Standard better satisfies the NEO.

We can explain this further by reference to analysis provided by SEED. Previous analysis, provided to AEMO, has shown that the existing level of collateral, with the existing settlement cycle, can lead to a standard of 2% P(LGD). A shorter settlement cycle at 2% P(LGD) can reduce the Prudential Requirement by 40%. We expect this to result in productive efficiencies in reduced administrative costs and dynamic efficiencies through increased retail competition. It may be possible to quantify the productive efficiencies of costs of reducing the Prudential Requirement, but not the longer term dynamic efficiencies.

Further analysis by SEED, for the NGF, has shown that maintaining the existing level of collateral but shortening the settlement cycle can lead to a P(LGD) of approximately 0.8%, which should lead to efficiencies as it improved the creditworthiness of the NEM. These efficiencies cannot easily be quantified as the methodology of PLGD does not include the probability of default itself. The means we cannot simply compare the expected loss given default of the Rule change proposal (and other options that include a shorter Credit Period) against the administrative cost in providing collateral by retailers.

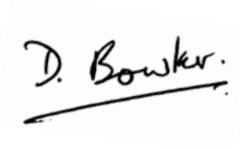
If we compare the benefits of combining the Rule change proposal with a shorter credit period, it is clear the economic efficiencies will be greater than that of the adopting the Rule change proposal in isolation. This is not to say the Rule change does not better satisfy the NEO than the existing Rules, it is just that a more Preferable Rule change including a shorter Credit Period will do so to a greater extent.

We can see no justification for the Rule change better satisfying the NEO than the aforementioned options which include a shorter Credit Period. May we suggest the question for the Commission is what better meets the NEO, reducing the Prudential Requirement on debtors or protecting pool creditors when implementing a Preferable Rule change which shortens the Credit Period?

In the interest of being constructive, the NGF membership considered the 2% P(LGD) to have a significant degree of error in the Seed modelling due to the limited amount of data used in the calculations. A prudent solution could be to shorten the settlement cycle aim for a 2% P(LGD) minus the expected error. This would also allow for a lower level of collateral against that required by the Rule change proposal. In effect this is “splitting the difference” between the two more preferable options.

Even though we may have raised more questions than answers, the NGF hopes this response is helpful in the Commission’s assessment of the Rule Change proposal. The additional analysis prepared by SEED is attached to this letter. Should you have any questions regarding the content of this response please contact David Scott of CS Energy on 07 3854 7440.

Yours faithfully,



David Bowker

NGF Deputy Chairman