

9 August 2013

Mr John Pierce
Chairman
Australian Energy Market Commission
L5, 201 Elizabeth St.,
Sydney NSW 2000

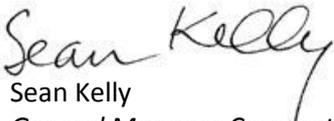
Dear John,

Review of national framework for network reliability – consultation paper – 12 July 2013

Please find attached SA Power Networks' submission to the above consultation paper.

If you have any queries please contact Mr Grant Cox on 08 8404 5012.

Yours sincerely



Sean Kelly
General Manager Corporate Strategy



National Reliability Framework Review

Submission to the AEMC Consultation Paper

9 August 2013

SA Power Networks
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Table of Contents

Executive summary 3

The South Australian Regime..... 5

 Reliability Framework 5

 Establishing reliability levels 5

 Determination of compliance with reliability standards/targets 6

 AER's STPIS regime..... 6

 Base level reliability performance 6

Responses to questions included in the consultation paper 8

 Expression of distribution reliability targets and transmission standards 8

 Structure of the standard setting process 9

 Customer consultation and selection of reliability scenarios..... 11

 Economic assessment of reliability scenarios..... 13

 Setting reliability standards and targets..... 13

 Implications for the revenue determination process and updating reliability standards and targets
 13

 Compliance obligations and performance reporting..... 15

Executive summary

SA Power Networks supports the Energy Networks Association (ENAs) submission to the AEMC's national reliability framework which proposes a more light handed approach to setting and establishing distribution reliability targets.

SA Power Networks proposes that the AEMC's proposed framework be amended by:

1. Initially determining if customers (via consultation) are willing to pay more or less for improvements or declines in performance respectively, or whether they are satisfied and only a small minority express dissatisfaction with current reliability levels;
2. Establishing reliability levels on historic performance where customers are not willing to pay more or less but are generally satisfied with current/historic reliability levels;
3. Only requiring the establishment of updated reliability levels based on a transparent economic assessment process, where either customers or jurisdictional ministers consider that a step change in current/historic reliability levels is required. Otherwise reliability levels should be established based on historic performance;
4. Increasing the time for consulting with customers on reliability scenarios from three months to at least nine months;
5. Increasing the time from finalising the reliability levels and measures from the proposed six months to at least nine months prior to when the Network Service Provider (NSP) is required under the National Electricity Rules (NER) to submit their regulatory proposal;
6. Removal of the requirement for an annual auditing of a NSP's process and procedures to ensure compliance with reliability targets. However, the NSP should be required to submit an annual reliability report which critiques the distribution system performance. In addition, an audit could be initiated where there is evidence of a systemic failure of an NSP's achievement of target reliability levels; and
7. Including the requirement for the establishment of security of supply standards (ie N-x where $x > 0$) for certain areas of the network based on assessment of load at risk or other significant economic impact in the event of an outage (eg central business districts).

SA Power Networks considers that the above amendments will deliver the same outcomes/benefits of the AEMC's proposal but at considerably reduced cost and consequently will deliver an improved achievement of the National Electricity Objective (NEO).

SA Power Networks supports the AEMC's proposal in the following aspects which are:

1. Reliability targets, not standards, are established for distributors based on feeder type, and the Australian Energy Regulator's (AER's) STPIS provides the mechanism to incentivise maintenance or improvement of the reliability performance;
2. The AER is responsible for the development of a national guideline/template for the reporting of reliability performance, which should enable improved benchmarking of distributors;
3. The establishment of more granular VCRs so that the incentives provided to improve or maintain reliability levels reflect what customers are willing to pay;
4. That jurisdictions are responsible for determining the appropriate level of reliability, with the option to delegate responsibility to the AER or a jurisdictional body, including the ability for ministers to include additional reliability measures or specific reliability levels for specified parts of the network;

SA Power Networks' submission – AMEC National Reliability Framework

5. That there are greater opportunities for consultation with customers and consideration of community preferences;
6. That the reporting of reliability occurs on a nationally consistent basis; and
7. That the objectives specified in the paper are appropriate with a slight modification, with the objectives being:
 - > transparency;
 - > fit for purpose and reflective of customer preferences;
 - > economic efficiency (we consider that this includes the separately proposed objective of “effectiveness”);
 - > good governance.

The South Australian Regime

Reliability Framework

The reliability framework within SA is very similar to that proposed by the AMEC, as it employs:

1. The establishment of security of supply standards (N-x, where x is either 0,1 or 2) for the transmission networks; and
2. Output reliability standards which require a DNSP to use “best endeavours” to meet average historical reliability targets.

The regulator's (Essential Services Commission of SA (ESCoSA)) process for determining if SA Power Networks has complied with the reliability standards is a two step process, which comprises:

1. First step — where SA Power Networks has achieved the targets, it is assessed as complying with the reliability standards; and
2. Second step — where the performance is worse than the target ESCoSA assesses whether ‘best endeavours’ have been used. This generally involves an assessment of whether facts beyond SA Power Networks’ control have resulted in the performance being worse than target.

ESCoSA independent reviews have in all cases concluded that SA Power Networks has used “best endeavours” to meet the standards, despite on those occasions where reliability targets have not been achieved.

Establishing reliability levels

SA Power Networks and ESCoSA consulted with customers as part of setting reliability service levels for the upcoming 2015 regulatory control period. Similar consultation occurred prior to the 2005 and 2010 regulatory control periods.

The outcome of each of those earlier customer consultations has been that the vast majority of customers have not expressed any material degree of dissatisfaction with the current reliability performance. Consequently, reliability levels were established at historical average performance levels. In addition, customers have not been willing to pay more or less for a step change in reliability performance improvement or decline, respectively. The 2015 consultation which has not been finalised has determined that about 85% of customers are satisfied with their current levels of reliability, which aligns with the previous customer consultation findings.

The customer Willingness to Pay (WTP) survey prior to the 2005 regulatory control period determined that customers in general were willing to pay for improvements in reliability performance for worst served customers. Consequently, ESCoSA introduced an incentive regime where SA Power Networks was rewarded or penalised based on the performance of those worst served customers. This regime involved about 15% of customers, in line with the percentage of customers who expressed some degree of dissatisfaction with their reliability levels in the WTP survey.

SA Jurisdictional experience with a full customer WTP in 2002 and a customer survey without scenario analysis in 2008 which confirmed the findings from the 2002 survey supports our proposed amendment for not mandating the proposed scenario analysis process prior to the commencement of the new regulatory control period, is based on the level of maturity reached in SA with respect to customer engagement on reliability standards.

Since 2000, customers’ preferences for reliability levels have been tested twice to determine if customers are willing pay more for reliability improvement or pay less for declines in reliability

SA Power Networks' submission – AMEC National Reliability Framework

levels. We consider that we are in the “steady state” phase contemplated by the AEMC (see section 7.2 page 54) with the following comment:

“Further, there is also the potential that over time less reliability scenarios may need to be tested, as reliability standards and targets are set in a manner which more closely reflects the preferences of customers. As a result, unless the preferences of customers change substantially, the need for significant changes to reliability standards and targets may reduce once the standard setting process has been run a handful of times for each NSP.”

We consider that this statement supports our proposal to undertake an initial test of customers WTP for changes in reliability levels, and where customers' preferences do not change substantially, there is no need to perform the (very costly) scenario analysis step.

Determination of compliance with reliability standards/targets

ESCoSA has not required an annual audit of our practices and processes to determine if SA Power Networks can comply with its best endeavours reliability standards despite on a number of occasions not meeting those reliability targets. ESCoSA has the capacity to undertake reviews when it determines it is necessary based on NSP performance. To date ESCoSA has initiated only one review of our performance which resulted from performance during a severe weather event.

ESCoSA relies on SA Power Networks' annual operational performance report which details reliability performance for the prior regulatory year and explains the reasons/causes for any negative performance deviations. This annual report is used by ESCoSA to determine if SA Power Networks has complied with its reliability service standard obligations, despite not achieving reliability targets.

We consider that prescribed annual audit to determine if our processes and practices will ensure compliance with our reliability targets is not warranted or cost effective. The current annual reporting process has been effective for the last 13 years and has maintained reliability levels at historic averages. We accept that the regulator should be able to initiate a review (which may involve an audit) of a distributor's compliance with reliability standards, where it appears that there may be a systemic failure. The first step in the review should be for the regulator to seek an NSP response detailing the reasons for the decline and, where appropriate actions to remedy the situation. If the regulator is not satisfied with the distributor's advice, an audit would be initiated.

AER's STPIS regime

SA Power Networks has been subject to the AER's STPIS regime since the 1 July 2010. SA Power Networks' performance under that regime has been positive with an overall slight improvement in normalised reliability performance. SA Power Networks has reviewed the possible impacts of the STPIS on our annual standard control services revenue. The regime for SA Power Networks can impact annual revenue by $\pm 3.5\%$ (eg revenue could vary by 7% from one year to the next) of revenue. The ability within the scheme to bank the outcome provides some capability to smooth revenue impacts.

SA Power Networks is of the strong view that any incentive scheme should be symmetrical so that over the long term a distributor is neutral to the normal variations from the average/target reliability performance.

Base level reliability performance

SA Power Networks like other NSPs, is required to comply with technical and safety requirements (eg the network must not pose a hazard to customers or the community). In addition we are required to have sufficient capacity to meet customers' peak demands for electricity. These

SA Power Networks' submission – AMEC National Reliability Framework

obligations provide a base level of reliability performance. Consequently, it is not possible to reduce reliability levels below those which are delivered by complying with those technical, safety and capacity obligations.

This inherent reliability baseline of networks must be understood in developing a national framework for reliability.

Responses to questions included in the consultation paper

Expression of distribution reliability targets and transmission standards

Question 1 - Expression of distribution reliability targets

- (a) *Does the proposed removal of input planning standards for distribution networks compromise the ability to deal with high impact low probability events such as city wide supply interruptions?*
- (b) *Does the expression of distribution reliability measures by feeder type accommodate the specific locational characteristics of individual jurisdictions while achieving the benefits of national consistency?*
- (c) *Is it possible to achieve consistency in the definitions of distribution reliability measures across the NEM, including consistency in exclusion criteria?*
- (d) *Is the AER the appropriate body to be responsible for developing the national reference standard template for distribution? If not, which body should be responsible for this task?*

Question 1(a)

SA Power Networks is not required to comply with mandated input planning standards. We have developed internal input planning standards which are designed to support compliance with the locational output based reliability standards detailed in the Electricity Distribution Code. SA Power Networks is required to use “beat endeavours” to achieve these standards. The targets for unplanned SAIDI (USAIDI) and USAIFI are based on historic average performance.

SA Power Networks considers that output based reliability standards need to coexist with security of supply standards that are only specified for areas of economic significance, have significant electricity demands, serve large number of customers, or where large numbers of customers work (eg Central Business Districts).

Question 1(b)

The expression of distribution reliability measures by feeder type provides the appropriate disaggregation of reliability measures for benchmarking and provides distributors an incentive to maintain or improve reliability performance. This feeder type regime reduces the volatility of the measured performance by mitigating to a degree the service territory-wide service variation effects due to weather, especially once MEDs are excluded from the measured performance.

The adoption of this regime may be supplemented by need to including the requirement for distributors to annually report their reliability performance which may involve reporting at localised geographical areas, or parts of the network, to better inform customers on the performance they receive.

Question 1(c)

Yes it is possible to get consistency of measures across the NEM, including exclusion criteria. However, it is important that many years of suitable accurate data is available prior to establishing performance levels. In some cases additional funding will be required to enable the collection of

SA Power Networks' submission – AMEC National Reliability Framework

data to determine performance level and understand the costs of for varying the levels of that performance measure. A case in point is MAIFI, where few if any NSPs have robust record of past performance.

Question 1(d)

Yes, AER is the appropriate body to develop the National Template, via their normal consultation process.

Question 2 - Expression of transmission reliability standards

- (a) *What would be the effect of expressing transmission reliability standards on an N-x basis and complementing this with the inclusion of additional parameters?*
- (b) *Is AEMO the appropriate body to be responsible for developing the national reference standard template for transmission? If not, which body should be responsible for this task?*

Question 2(a) & (b)

No comment.

Structure of the standard setting process

Question 3 - Structure of the standard setting process

- (a) *Is the proposed timeframe for undertaking the standard setting process able to be achieved in practice?*
- (b) *Are there any specific jurisdictional arrangements that would need to be considered in adopting the proposed*

Question 3(a)

The timeframe proposed maybe short to properly engage and seek customers' views on the aspects of reliability performance they value, the appropriate measure of that performance and the level that should be specified. SA Power Networks has commenced engagement with its customers in conjunction with its regulatory proposal two years prior to the submission of our regulatory proposal.

We consider that a NSP's internal processes would require a minimum of nine months (not six months as proposed) to incorporate the outcomes of the customer consultation (including reliability scenario analysis) into plans and expenditure forecasts. The time is required to ensure as far as practical that those plans and associated expenditure forecast are robust and been tested prior o submission to the regulator.

This would require commencement of the standard setting process three months prior to that proposed by the AEMC.

Also, see response to question 5.

Question 4 - Development of guidelines and the VCR

- (a) Which aspects of the proposed frameworks should be covered in the economic assessment process guidelines?
- (b) Is the AER the appropriate body to develop the guidelines, in light of its other roles under the proposed frameworks? If not, which body should be responsible for this task?
- (c) Is the AER the appropriate body to be responsible for updates to the VCR? If not, which body should be responsible for this task? Should the CPI be used to escalate VCRs each year?

Question 4(a)

SA Power Networks considers that the economic assessment process should only be employed where customers or the jurisdictional minister requires a step change in current levels of reliability performance.

SA Power Networks considers that the economic assessment guideline should be limited to:

- the stages of the economic assessment process;
- information requirements and assumptions to be used as inputs to the process, including how data from NSPs and estimates of the VCR should be considered;
- the methodology to be applied to determine the costs and benefits of each reliability scenario;
- the range of sensitivities to be applied and the methodologies to be adopted in evaluating the sensitivities; and

The process for customer consultation on the draft outcomes from any scenario analysis would be governed by the customer engagement guideline to ensure a consistent framework is applied to any customer engagement on reliability standards and targets.

We consider that all matters impacting customers' consultations with a NSP regulatory proposal should be performed as part of the distributor's consultation process. As such collaboration between the NSP, standard setter, jurisdictional minister etc in setting the reliability levels should occur where there is evidence that a change in levels is required.

Question 4(b)

SA Power Networks supports the AEMC proposal for the AER to develop the economic assessment guideline.

Question 4(c)

SA Power Networks supports the AEMC proposal for the AER to be responsible for updating the VCR value prior to the commencement of the regulatory control period.

Customer consultation and selection of reliability scenarios

Question 5 - Customer consultation and selection of reliability scenarios

- (a) *How should the customer consultation process be conducted to provide sufficient information to the standard setter to make an informed decision on the selection of a range of reliability scenarios?*
- (b) *Should limits or constraints be placed on the discretion that the standard setter has regarding the selection of reliability scenarios?*
- (c) *Should the evaluation of measures to address worst served customers for DNSPs be included in the economic assessment process?*

Question 5(a)

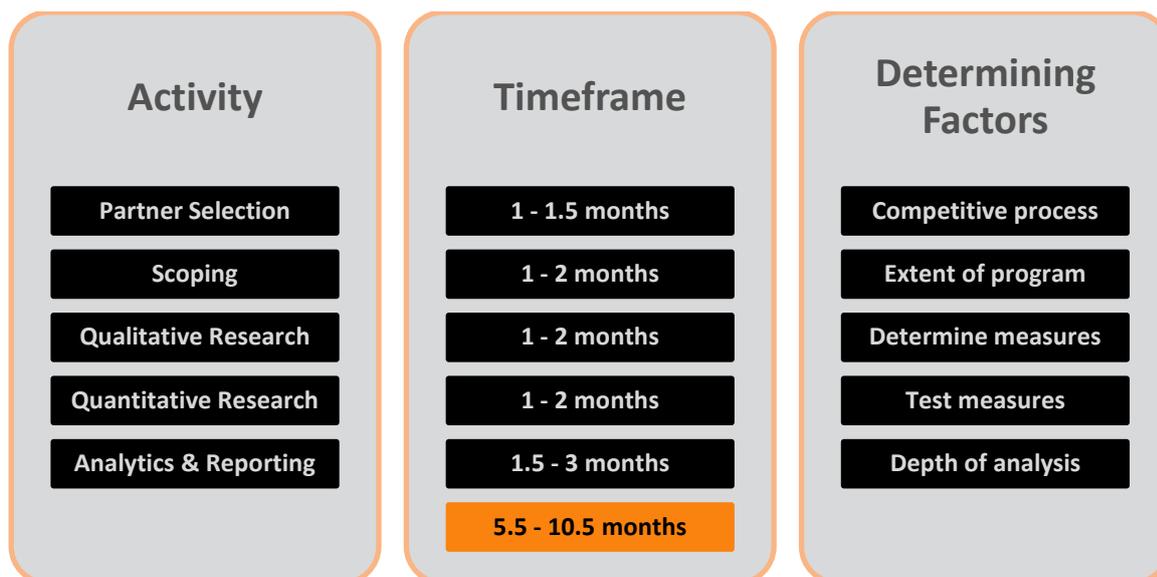
SA Power Networks has recently completed the first part of our consultation with customers in preparation for submission of the regulatory proposal. This consultation has led to a number of learnings about effective engagement with customers. The learnings have been incorporated into our response below.

In regards to 'Stage 1 Consultation on and selection of reliability scenarios' the proposed timeline of 3 months for consultation, development of reliability scenarios and selection of reliability scenarios in our opinion is underestimated. Quality design and analysis are critical to achieving robust results. With a methodology provided, the Customer consultation program based on our experience (per figure below) is expected to take between 5.5 and 10.5 months to complete.

This program should include a competitive selection process for a suitable research partner, allowing 4 to 6 weeks for the procurement process – from expression of interest, to short-list, internal review, selection and engagement. In regards to scoping, design will impact the quality of results and therefore the depth and breadth of requirements is estimated to require 1-2 months. This includes time for business buy-in. The qualitative stage is expected to take 1-2 months and includes focus groups to determine appropriate measures for South Australia.

Testing the outputs of the qualitative stage should take place in the quantitative phase. For this phase a representative sample for 840,000 customers is approximately 400 people. Our framework assumes recruitment to an online survey. Surveying timeframe and costs can increase if special quotas are required for special interest groups.

In regards to analytics and reporting it is dependent on the type of research methodology chosen, however we estimate 1.5 to 3 months to undertake a thorough review of results, make recommendations where appropriate and to create formal report/s to provide accurate and reliable insights.



It may be possible to undertake some of these steps in parallel with other parts of the standard setting process. See response to question 4(a) for minimum overall timeframe.

Question 5(b)

The standard setter should have a cap on the number of scenarios they propose that are subject to economic assessment. The standard setter needs to be cognisant that it is not possible to achieve a step change in reliability performance but rather that reliability levels will gradually change over time. Consequently, the standard setter should not set reliability levels that can not be delivered by the end of the next regulatory control period.

Question 5 (c)

SA Power Networks considers that the worst served customers regime is arguably more about equity than economic matters. Consequently, we consider that the worst served customer regime should not be subjected to the economic assessment criteria (ie the cost vs VCR). However, it should be subject to a transparent process where customers (who will fund the improvements) are consulted as to their willingness to pay for reliability improvements for the worst served customers.

In SA, ESCoSA determined via a customer survey/consultation in 2002 that customers in general were WTP for reliability improvements to the worst served customers. The difficulty was in determining what customers should be considered as worst served and how performance should be measured. In our 2005 Determination, SA Power Networks was provided with incentives to improve the worse served 15% of customers. The 15% of customers was chosen on the basis that 15% of customers surveyed had expressed a degree of dissatisfaction with their current level of reliability performance.

Subsequently, the worst served customers were defined in the 2005 Determination as customers connected to a feeder who's performance exceeded a SAIDI threshold in two consecutive years. The SAIDI thresholds were set so that on average about 15% of customers were included with the scheme. The incentive provided was sufficient to maintain performance but not to improve performance.

Economic assessment of reliability scenarios

Question 6 - Economic assessment of reliability scenarios

- (a) *What are the likely to be the main costs and resource implications for NSPs, economic advisers, and other stakeholders from the economic assessment process?*
- (b) *What are the main risks associated with the economic assessment process? Is the use of sensitivities during the economic assessment process likely to address risks around the uncertainty of key assumptions?*

Question 6(a)

SA Power Networks considers that the main costs and resources implications will be in:

- consulting with customers to ensure customers are engaged and that their views are properly considered in any change to reliability levels;
- ensuring that the costs associated with any step change in reliability levels are accurate to ensure levels are set economically and that distributors are not penalised via the various incentive regime for inaccurate estimates.

Question 6(b)

SA Power Networks considers that it is difficult for NSPs to accurately estimate cost of improvements or declines in performance, as the performance in any one year is subject to significant external influences. Consequently, reliability levels should either decline or improve gradually over time subject to the AERs STPIS, which penalises or rewards distributors for deviations from target levels.

Setting reliability standards and targets

Question 7 - Setting reliability standards and targets

Does the Commission's proposed approach provide sufficient information to the jurisdictional minister to allow the minister to make an informed decision on the levels of reliability that appropriately meets community expectations?

We consider that the AEMC's proposal should provide the jurisdictional minister with sufficient information to make an informed decision on the appropriate levels of reliability where the minister considers that a step change in reliability levels is desirable.

Implications for the revenue determination process and updating reliability standards and targets

Question 8 - Links between the standard setting process and the revenue determination process

Question 8 - Links between the standard setting process and the revenue determination process

- (a) *Should NSPs be required to align the consultation process at the commencement of the standard setting process with their consultation process on their regulatory proposal? Is this feasible and what costs or benefits may arise under this approach?*
- (b) *What factors should the AER consider in taking into account any differences in the cost forecasts submitted during the standard setting process and in a NSP's regulatory proposal?*

Question 8(a)

The standard setting process where warranted should be incorporated into the NSP's customer consultation processes.

Question 8(b)

The high level costing used to establish the appropriate levels of reliability performance, should only inform the AER as to the indicative costs (ie say $\pm 20\%$) of meeting the step change in reliability performance. The detailed costing as submitted by the distributor in its regulatory proposal should be taken as an accurate estimate of the costs. These costs should be subject to the same AER scrutiny as other expenditures proposed by the distributor.

The distributor should justify any increase in costs which exceed (say) 20% of the high level costing as provided in the target setting process.

Question 9 - Updating reliability standards and targets within the regulatory control period

- (a) *Are the Commission's proposed criteria for when an update can be sought appropriate for TNSPs and DNSPs, noting the differing characteristics of these networks?*
- (b) *Do the Commission's proposed criteria represent a sufficiently high materiality threshold for updates?*
- (c) *Would the proposed mechanism affect the incentives for efficient investment that exist under incentives based ex ante revenue allowances?*

This process should not be required and every effort should be made to ensure that reliability targets established as part of a NSP's determination are appropriate and the costs allowed ensure compliance with those reliability levels.

However, if a jurisdictional minister proposes a step change to reliability performance or establishes a new reliability measure and target, then it should be treated as a service standard pass through event. In addition, in this circumstance there should be no materiality threshold on the pass through amount other than administrative cost.

Compliance obligations and performance reporting

Question 10 - Compliance and performance reporting

- (a) *If the proposed framework for transmission reliability is adopted in Victoria, should AEMO be responsible for complying with Victorian transmission reliability standards?*
- (b) *Does there need to be any changes to the current STPIS in order to enable it to be used to promote compliance with reliability targets for DNSPs?*
- (c) *How should independent audits of NSPs' internal processes be conducted to demonstrate that NSPs have processes in place to meet their standards and targets?*
- (d) *What issues should be considered in specifying how performance reporting should be undertaken by TNSPs and DNSPs?*

Question 10(a)

No comment.

Question 10(b)

The current STPIS incentives are sufficient to ensure compliance with current reliability levels.

Question 10(c)

SA Power Networks considers that distributors should not be subject to an annual audit of their processes and practices that ensure compliance with the established reliability levels. The AER STPIS regime currently provides sufficient incentives to maintain or improve reliability levels and consequently an annual audit is not required.

Distributors should be required to provide an annual reliability report which criticises the performance of their network. The report will include details on reasons for variations in performance. If that annual reliability report highlights any systemic decline in performance below the established targets then it will detail the reasons and/or any actions proposed to meet the targeted levels. There may be reasons for the decline in that the costs of maintaining the reliability levels are in excess of the VCR value. Consequently the performance should decline to match the optimum economic outcome of costs and VCR alignment.

Where a jurisdictional minister incorporates a reliability target for a part of the network that is considered to be uneconomic (ie costs are higher than VCR), then the incentive to maintain performance levels under the AER STPIS regime should be based on the cost, not the VCR. This should provide the appropriate incentive for the distributor to maintain performance at target levels.

We consider that the best method to ensure NSPs comply with obligations is to get the incentive regime right.

Question 10(d)

The performance reporting regime should be designed to inform and educate customers on variations in performance. The regime should report on total customer experience and should

SA Power Networks' submission – AMEC National Reliability Framework

include reporting on the components that contribute to the overall reliability performance. The components provided should include:

- generation related failures;
- transmission related failures;
- distributor exclusions including Major Event Days (MEDs)s;
- normalised reliability (ie that used to incentivise distributors)

The annual report should include information on NSPs performance on MEDs so customers understand the reasons for these events being excluded.