



21 May 2009

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Dear Steven

Security Policy Review

Thank you for the opportunity to provide feedback on the security policy review. We welcome the initiative to review the security policy. We should all acknowledge that this has the potential to significantly change the way the system is operated and we believe that broad consensus is required.

We would like to see a more extensive consultation process including a step in the process where the information about the risks and mitigation options are published and reviewed by the industry. This will allow comment, on the whether these risks are consistent with those of other asset owners in NZ, and to make sure that all mitigation options are considered before the number crunching begins. This is a kin to the Grid Owner asking for feedback on their long list. We believe that the industry as well as the expert panel has a role in identifying innovation and technology to manage risks in the future.

The document is heavily focussed on consequences and managing the consequences. Very little is mentioned around likelihood of an event occurring even though it is an essential part of risk management under AS/NZS 4360.

In several places in the document identifying risks is based on using historical events to indicate likelihood of an event occurring. These approaches suggest the assets have the same reliability despite replacements and applications of on line condition monitoring to improve reliability.

It will be important to analyse the reliability of a type of equipment (e.g. generator) to ensure that the likelihood of failure is not applied across all similar equipment (different type of generator will have different likelihood of failure or there maybe a difference in reliability based on make and model).

We think that the scope of work should allow (but not require) the review of PPO's in situations where changes to the PPO's represent the more sensible option.

We acknowledge that the review of international experience is a valuable exercise but would make it clear that the solution needs to meet the needs of NZ which is unique in many ways. Applying international best practice in a New Zealand context must be considered security at any cost.

Meridian would also like some assurance that the Ministry of Economic Development (MED) and the Electricity Commission (the Commission) are involved in this process in order to fully understand its contribution to security of supply.

Meridian considers that it is important that there is consistency between the Grid Reliability Standard (GRS) and the security policy. If the security policy forces high levels of security than is provided under the GRS then very expensive operational measures will need to be applied. Further, where the GRS clearly shows that some part of the grid should be managed to a lower security level, Meridian submits that the security policy needs to be flexible to allow this to occur.

Meridian notes that the cost is focused on unserved load only. Meridian would like the SO to consider non optimal generation dispatch (i.e. having to run a peaking plant rather than cheap hydro to meet the requirements of the security policy).

Meridian notes that the outcomes of the review may also affect the basic economics of different types of generation or asset types. This will have a flow on affect to the cost of meeting demand growth in the future and we would like to understand how you are going to assess this potential cost in your review.

The value of lost load is a key assumption and you note that this is currently under review. This review will require careful consultation with the industry. The analysis may need to consider using both the updated information and a wider range of values to ensure robust results.

Specific Clauses

We now comment on specific clauses

Clause 2.2

Clause 2.2 - the current credible events could be improved by also including the management methods available to mitigate each event. As an example if we consider the loss of a generating unit. The current management methodology utilises instantaneous reserve procurement, EGR based penalty for tripping, EGR obligation on generation performance and testing of relays among others to mitigate the loss of a generating unit.

Clause 1.2 -Assumptions

The assumptions in 1.2 need to have some form of risk assessment applied to identify the relative importance of the assumption if it was in fact incorrect. Such a study identifies the importance of each assumption and will provide focus as to which assumptions need to be validated.

The assumptions in 1.2 need to have some form of risk assessment applied to identify the consequences if the assumptions prove to be incorrect. If the consequences are sufficiently large it might be wise to validate the assumption. The current document doesn't provide sufficient information for Meridian to accept the assumptions need no farther consideration.

For examples we consider the assumption of accuracy of models. Meridian has little confidence in the accuracy of the RMT model (as well as other simplified models) used for operational reasons. We would like you to review the accuracy of these models. We would be very interested to see the results of such work to help us gain confidence in these simplified models.

An additional example is the assumption that it is safe to assume that the system will remain stable if 32% of load is tripped, given that in ensuring 32% is achieved there are times when as much 50% of the load is armed to trip.

The assumptions - appendix 2

Listed below are suggestions regarding the assumptions made in Appendix 2:

- When evaluating options to manage risks you need to consider the scarcity of the mitigation option. This will help in determining the cost. We consider your assumptions for example with regard to FIR/SIR overly simplistic.
- You use restoration time for transformers tripping on overload. This kind of methodology could and should be applied to other asset types. For example if a line fails to auto re-close then some percentage of them can be returned to service within 2hrs on the basis of a line patrol. This might apply to generators or the HVDC etc.
- There will be costs in running generation back in the efficient dispatch of generation.
- Wider Voltage Agreements may not be free as it implies transformers with higher specifications.
- If AUVLS is a special protection scheme it should have \$20,000 applied as there is no evidence that load tripped is any more discriminating than AUFLS.

Please don't hesitate to contact me if you have any queries regarding the submission

Yours sincerely,



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