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Submissions
Extended Reserve Manager
NZX
Wellington

By email: ermanager@nzx.com

Dear Tania

Extended reserves selection methodology

We welcome the opportunity to submit to the Extended Reserve Manager's consultation *Extended Reserves selection methodology*, published 11 October 2016.

At this important phase for the extended reserves policy our focus remains for timely delivery of the technical solution for automatic under frequency load shedding (AUFLS). Our submission makes three points about methodology and process issues that have implications for the technical solution. We think the aim for timely delivery is at risk given the concerns we outline below.

We also comment on the procurement policy in light of the information on cost distributions arising from the methodology. At Appendix A we respond to the questions.

Ensuring technical delivery from the selection methodology

Relying on estimated historic data

We have concerns with reliance on estimated historic data with its implicit inaccuracy as the basis for performance for a future five years. To manage the inaccuracy, we suggest NZX should weight the methodology away from selecting demand units with significant amounts of estimated data and consider the use of a safety margin. We also query whether a methodology that is overly reliant on historic data could reduce incentives to develop dynamic data provision that better supports the technical solution.

Delivering reliability outcomes

As NZX has stated the selection methodology is unlikely to meet the technical reserve schedule (TRS) requirement at all times. To manage the risk to our principal performance obligations, we may be required (by our principal performance obligations) to procure additional reserve to ensure the TRS is met.

A trial process for the periodic performance report.

We suggest the periodic performance reporting (PPR) process (including the flexible solves) is trialled before the selection methodology is finalised, to assess its effectiveness. The data provided into the PPR process must provide a reliable view of performance. NZX should consider how to drive improvements in data quality over time. We acknowledge this is likely to delay the technical implementation but consider the risk of getting it wrong after the methodology is finalised necessitates extra care through the development stage.

Cost distributions from methodology may not be 'durable'

We consider the Authority is the appropriate party to assess the costs and benefits of a payment policy. More broadly we consider it may be time to pause and think again about the costs and benefits of the whole procurement process too. From the information presented on the distribution of costs there appears to be perverse outcomes on parties whose customers will provide the majority of the load that end up paying the most cost. This does not seem to be a durable outcome.

If you have any questions about this submission please contact me

Yours sincerely

A handwritten signature in black ink, appearing to read 'Micky Cave'.

Micky Cave
Senior Regulatory Analyst

Appendix A – response to questions

Question	Comment
Q1: Do you support the adoption of standard values for AUFLS provision costs in the selection process?	No comment.
Q2: Do you support the proposed set of cost categories? Please comment if you consider any cost categories that are not included should be included and why, and vice-versa. Specific comments on any cost categories are welcome.	No comment.
Q3: Do you support the proposed cost values? Specific comments on any particular values are welcome.	No comment.
Q4: Do you support the extended reserve manager's proposed method for calculating the interruption cost?	No comment.
Q5: Do you support the extended reserve manager's proposal to adopt a generic value of \$100,000 for the public health and safety customer class and to tighten the definition of public health and safety as set out in the data specification?	We assume this very high VOLL has some basis. We agree with tighter specification for non-submitted load.
Q6: Do you support the proposal that demand units with 100% public health and safety customers on them are not eligible for submission?	Yes.
Q7: Do you accept the provision of 4 years of data as the minimum quantity requirement for load profile information where it is available?	We don't understand why the minimum quantity asked for is greater than the tool requirement that uses only 2 years. To improve the robustness of selection we suggest NZX considers weighted inclusion of more years of data.
Q7a: Do you support the proposed method for estimating missing years of data and its inclusion in the extended reserve manager functional specification?	<p>Unsure. To manage the level of inaccuracy we suggest NZX should consider</p> <ul style="list-style-type: none"> weighting the selection methodology away from selecting demand units with large proportions of estimated data. use a safety margin to manage the inaccuracy of estimated data.

Q8: Do you support the requirement for asset owners to provide at least 60% of offtake (the 60% to be net of interruptible load) in demand units?	No comment.
Q9: Does the data specification provide clear and achievable instructions that will promote a consistent and efficient response from asset owners?	No comment.
Q10: Do you have any other feedback on the data specification?	No.
Q11: Do you support the proposal to require interruptible load to be subtracted using the curtailable IL half-hourly profile on each demand unit?	Providers have expressed a degree of uncertainty around how they will provide the interruptible load (IL). We suggest NZX should consider methods for accounting for variations of the IL estimate.
Q12: Do you support the data provision timeframes proposed for asset owners during the selection process of 40 business days for data provision and 10 business days for revision?	No comment.
Q13: Do the proposed methods for estimating missing data and for customer class allocation promote a reasonable and attainable standard of accuracy?	<p>Demand units with less than one year of data will require estimation. We consider the inaccuracy could be detrimental to reliability outcomes. NZX should consider weighting the selection methodology away from selecting demand units with significant amounts of estimated data.</p> <p>In addition, we suggest that the periodic performance report (PPR) is trialled to assess the performance outcomes of the selection methodology, before the methodology is finalised.</p>
Q14: Do you support the proposal to remove the information requirement for asset owners whose offtake is less than 1 MW on average per year?	No comment.
Q15: Do you agree that the use of averaged half-hourly historical information as a proxy to meet the 'at all times' technical requirement is appropriate given currently available technology?	No, we consider current technology is capable of providing load information in a more dynamic way but its use may not yet be widespread. We consider embedding historic information in the methodology reduces the incentives for uptake of technology to support more dynamic provision of information-
Q16: Do you accept the proposal to select up to 60% of the average annual offtake	No comment.

from any asset owner is the most cost-effective selection?	
Q17: Do you support the proposal to procure an additional 10-15% of extended reserve to be standby flexible demand units and to apply the minimum load buffer, to support flexibility in management of extended reserve?	<p>We support the use of a minimum load buffer and suggest that further consideration is given to how to manage the data inaccuracy and assumptions.</p> <p>We consider the 10-15% is arbitrary and instead the objective for flexible supply should at least cover a permanent removal of the largest demand unit proportion in every trading period (N-1 coverage).</p>
Q18: Do you agree that the methodology is aligned to the Code principles?	Unsure.
Q19: Does the procurement schedule template include the information that you require?	Yes, the procurement schedule template contains the information required to create the Extended Reserve schedule. However, we suggest the template may need to also include the design where one sensing relay is used to control multiple demand units.
Q20: Do you support the extended reserve manager's proposed process for managing commercially sensitive information?	Yes, under the understanding that "all information provided to the Authority and system operator is subject to the Official Information Act 1982".
Q21: Do you consider a 2-week consultation period for the draft procurement schedule to be sufficient for you to provide feedback?	We think this may be too short. Parties may need to go through internal governance processes and undertake analysis to ensure they still comply with their rolling outage requirements. We suggest the consultation period is increased.
Q22: Do you support the proposed operational design of the extended reserve scheme?	No comment.
Q23: Do you have any comments on the flexible solve and limited selection processes described in sections 5.5 and 5.7?	Yes, we suggest the periodic flexible solves should be trialled before finalising the selection methodology.
Q24: Regarding Obligations 1 to 7: Do you have any comments or feedback, for example on the information requirements and proposed timeframes?	We suggest the periodic performance report is trialled before the selection methodology is finalised.
Q25: Regarding Obligation 8 (the proposal to require all relays to be set to and tested for as many AUFLS block settings as the relay can supply):	No comment to all parts.

Q25a: Are the capability and cost assumptions correct? Please comment on any that are not.	
Q25b: Do you support the proposal to require all relays to be set to as many AUFLS block settings as they can hold and supply?	
Q25c: Do you support the proposal to require flexible demand units to switch between AUFLS blocks during an operational period, if necessary to improve flexibility?	
Q26: Do you support the proposal to introduce a payment mechanism and why?	This is a fundamental question at the heart of the procurement policy and is solely for the Authority to (re) assess.
Q27: Can you identify incentives including perverse incentives or 'gaming' opportunities in the extended reserve selection process, whether there is a payment mechanism or not?	The cost distributions from the selection methodology appear perverse when the customers of the largest provider of load also end up paying the most. This may have impacts on durability and confidence in the scheme.
Q28: On the assumption that there is a compensation payment regime do you agree with the proposed compensation details?	Refer question 26.
Q29: Do you have any other comments to make on the proposed methodology?	<p>Yes. NZX has stated the selection methodology is unlikely to meet the TRS requirements at all times (section 6.6.1). We may be required by our principle performance obligations to be conservative in the procurement of reserve to ensure the technical reserve schedule is met.</p> <p>As previously stated, we recommend the PPR is trailed before finalising the selection methodology.</p>