

05 March 2014



Vector Limited
101 Carlton Gore Road
PO Box 99882, Newmarket
Auckland 1149,
New Zealand
www.vector.co.nz
Corporate Telephone
+64-9-978 7788
Corporate Facsimile
+64-9-978 7799

Electricity Authority
PO Box 10041
Wellington

Sent by email to: submissions@ea.govt.nz

Efficient procurement of extended reserves – second consultation

Introduction

1. Vector welcomes the opportunity to respond to the Electricity Authority's (Authority) consultation paper, *Efficient procurement of extended reserves – second consultation* (paper), dated 20 December 2013. No part of this submission is confidential and we are happy for it to be publicly released.
2. Vector's contact person for this submission is:
Sally Ma
Regulatory Analyst
09 978 8284
Sally.Ma@vector.co.nz
3. The Authority proposes to improve the way AUFLS is procured by introducing a "varying AUFLS provision" approach whereby all direct-connects and distributors (i.e. all types of load) are required to provide the System Operator with information. The information is fed into an 'optimised' selection process where only the most suitable load is selected for Automatic Under-Frequency Load Shedding (AUFLS).
4. Those parties that benefit from not providing AUFLS will be required to compensate those that do; the aim being to create an incentive for direct-connects and distributors to better position themselves to be selected and receive payments for providing AUFLS.
5. Vector agrees that some types of load are more suitable (lower value) than others for AUFLS. We also agree that it is not efficient to offer dispensations and exemptions for less (higher value) suitable load.
6. Therefore, Vector in principle supports the Authority's objective and we agree that the Authority's proposal has a valid conceptual basis. However, we are yet to be convinced that the proposal will work in practice. In particular, if the AUFLS compensation payments are to be calculated by taking the value of the

improved AUFLS efficiency and multiplying that by the (very low) probability of an AUFLS event in any year, the resulting payment amounts may be quite low. It has not been demonstrated that the sums involved would in reality provide sufficient incentives for participants to invest in new technologies and engage with the new regime. Therefore, it is not clear that the Authority's proposal will deliver the benefits the Authority expects, or that it will be more effective than an administrative scheme without the compensation payment incentives.

7. At the same time, the Authority's proposal will create real costs for distributors and direct connects in providing information to the System Operator, and for the System Operator in selecting load to provide AUFLS. It also risks creating presentational risks for the industry if certain participants are required to provide what is perceived to be an "unfair" proportion of the AUFLS response (discussed further below).
8. Overall, this appears to be a proposal that, although it has a sound conceptual basis, risks creating notable costs for low or uncertain benefits. Vector **recommends** the Authority conduct further analysis to assess the likely level of the compensation payments and to identify whether those payments will provide sufficient incentives to drive the outcomes the Authority seeks. If this analysis shows the incentives created by the payments are weak, alternative options should be reconsidered, including the status quo.
9. Vector's specific comments on areas of the proposal are discussed below.

Information requested

10. The Authority's proposal requires direct-connects and distributors to submit technical load information to the System Operator, which will be used to find the optimal selection of AUFLS load. Vector agrees that, under the Authority's preferred approach, it is necessary to provide the System Operator with particulars about load and load shedding capabilities. However, given that there are different types of load across and within the direct connects and distributors there will likely be a diverse range of technical characteristics and configurations from which the System Operator needs to draw relevant information. Thus, certain types of information may be relevant and easily obtainable for one type of load, while not relevant or overly onerous for other types. However, the Authority's cost-benefit analysis assumes that direct-connects and distributors will need to spend 400 hours to consult, setup systems and provide compliance data (paragraph B.9(e)). This is a significant amount of time and resources and assumes that all parties are able to dedicate (approximately) 0.2FTE to the implementation of the regime.
14. Vector **recommends** that any requests for information must be properly targeted and the System Operator ought to be able to demonstrate that the

information sought is fit for purpose and not excessively costly to provide. For instance, the System Operator could seek different profiles of information by tailoring information requests to different types of load.

15. This acknowledges that some information requirements will not be universally applicable or relevant across all direct-connects and distributors and help ensure the extraction of relevant load and load capability information only.
16. Information disclosure regimes can be very time consuming and costly (particularly for smaller entities). Recently, we have noticed an increasing trend in the Authority's requirement for information from industry participants. For example, the Authority's Wholesale Information Disclosure is another example that came into force in 2013 and the retail data project consultation.
17. Additionally, all distributors are subject to onerous information disclosure requirements under the Information Disclosure Determinations, under Part 4 of the Commerce Act.
18. While individual requests for information may seem reasonable on their own, taken together there is a risk that they will create substantial burdens on industry participants. Vector **recommends** that the Authority and the System Operator bear in mind resourcing and timing constraints direct-connects and distributors face under *existing* information disclosure regimes and assess whether further disclosure requirements are justified under cost-benefit analysis, and in the long term interests of consumers before imposing any new information disclosure regimes.

Shift of load control from distributors to the System Operator

19. As mentioned above, Vector supports the principle that the System Operator selects the optimal load for AUFLS.
20. However, the Authority's proposal would transfer decision rights regarding allocation of load for AUFLS (and consequently other purposes) from direct-connects and distributors to the System Operator. The System Operator will have the decision making powers to determine *who* must provide AUFLS, the *amount* of load that must be armed and provided during AUFLS, and the *length* of time the load must be armed.
21. Vector is concerned that in practice this could lead to certain direct-connects and / or distributors (i.e. those with suitable load) being placed under a regulatory obligation to provide a disproportionate amount of AUFLS. For instance, the current regime requires *all participants* to provide 32% of AUFLS. Although we acknowledge the issues with the current approach, it is at least equitable (putting exemptions aside), as participants are "all in this together" and provide the same proportion of their load as AUFLS to help ensure system security.

22. Vector understands the reasons for wanting to move away from the current allocation of AUFLS. However the responsibility for system security ought to remain at least somewhat consistent across *all* direct-connects and distributors. A regime where certain direct-connects and / or distributors were asked to provide a significantly greater amount of AUFLS than others would create presentational difficulties for the industry, as consumers in one area may not be willing to accept an increased probability of outages than consumers in another area. In theory the compensation payments would help to address this issue but, as discussed above, it is not clear they will be significant (especially at an individual consumer level).
23. Therefore, we are concerned that an allocation of responsibilities to provide AUFLS that is not at least somewhat consistent across distributors could create reputational risks for distributors, the System Operator and the Authority. The System Operator has far less connection with and accountability to the consumers who will lose power during an outage event than the local distributors, but it is the System Operator who will be making the decisions.
24. Furthermore, any proportion of AUFLS a single stakeholder is required to provide will impact on its ability to respond to other network emergencies, such as unplanned outages or a grid emergency.
25. Accordingly, Vector considers that the System Operator must have due regard to the implications associated with requiring a distributor to provide a significant portion of load.
26. Vector **recommends** that the proposal include a cap on the proportion that any single stakeholder could be asked to provide.
27. Vector also **recommends** the System Operator be required to consult with individual direct-connects and distributors before finalising decisions on how to allocate AUFLS. Additionally, there should be scope for direct-connects and distributors to challenge or appeal the System Operator's decisions.

Length of time between selection processes

28. If the System Operator employs a "selection process" for the procurement of AUFLS, the industry needs certainty about what the length of time the procurement load will be valid for, and similarly when the next selection process will be run. This is currently unclear under the current proposal.
29. Paragraph 3.9.1 states that the process will be repeated at intervals the System Operator's deems appropriate, "but no less than once every five years". Vector considers this statement too vague and unpredictable, which is undesirable for any AUFLS regime.
30. This is because any amount of AUFLS required will have implications for wider network planning and the ability to respond to unplanned maintenance or

outages. Consequently, the length of time load must be designated for AUFLS following each selection process is useful information for direct-connects and distributors to have in advance.

31. The timeframe is also likely to impact direct-connects and distributors that are not selected to provide AUFLS but may be looking to make future investments in order to better place themselves for the selection. Such parties will need to make investment decisions that are likely to be informed by the length of time a decision on AUFLS allocation will apply.
32. Vector **recommends** that the final proposal provide clearer information and greater certainty around the length of time an AFULS selection will apply.

Co-ordination with other load uses

33. The paper suggests that the proposed regime will coordinate with Participant Rolling Outage Plans (PROP), and take into account competing uses for demand, such as Interruptible Load (IL) and Demand Response (DR) (see paragraphs 3.14.1, 4.1.6, B.26, B.33 and F.17-F.29).
34. Vector supports the proposal to coordinate and account for competing load uses and considers this an important aspect of the regime that needs to be worked out in advance and through consultation with direct-connects and distributors, before implementation.
35. Vector is a large provider of IL. It is not clear to Vector how the proposal will ensure minimal impact on direct-connects and distributors' ability to offer load into the IL market. In particular, we do not clearly understand how paragraphs B.26 and B.33, and F.23-29 will work in practice. Furthermore, the IL sections of the paper do not seem to address the impacts on demand response by third parties.
36. Vector considers that the Authority's proposal ought to ensure that it does not affect parties to the extent that they are effectively forced to exit the IL market, or modify the amount of load they themselves would typically offer, or offer on behalf of a third party. Additionally, the proposal needs to ensure that it does not prevent any parties from entering the IL market.
37. Vector **recommends** that the Authority and the System Operator undertake further consultation with the industry on how the proposed regime will coordinate with other load uses – that is, PROP, IL, DR (including DR by third parties) and grid emergencies, before implementation.

Incentives under the proposal

38. The proposal aims to create incentives for all direct-connects and distributors to participate in the AUFLS regime by requiring compensation be paid to those selected to provide AUFLS, by those who benefit from not providing AUFLS.

Another way of looking at it is that the proposal aims to create an environment where direct-connects and distributors will want to upgrade or invest in assets to better their chances to be selected for AUFLS and receive compensation payments.

39. Vector supports the introduction of such a payment system and considers it an appropriate alternative to granting AUFLS exemptions.
40. Vector is also concerned that the current proposal does not adequately provide the right incentives for *all distributors*. For example, the Authority proposes to treat any payments made by distributors as a *pass-through cost*, under Part 4 of the Commerce Act (subject to Commerce Commission approval).
41. This means that compensation charges incurred by those distributors not selected to provide AUFLS will be paid by their customers, and not the distributors themselves. Similarly, compensation received by distributors that provide AUFLS will be treated as regulated revenue and passed through to its customers (i.e. through lower lines charges).
42. Vector considers that these implications do not create the right kind of incentives for distributors to actively participate in the AUFLS regime, and invest in / upgrade assets. This is because distributors themselves (or at least those distributors subject to a default price-quality path (DPP) regulation) will not bear the costs of the payments, and will not be able to keep any compensation received.
43. A better alternative would be to create a regime where distributors incur part of the costs and in turn get to keep part of the compensation. This could be achieved by allowing the payment to be treated as *part-* regulated and *part-* unregulated. The balance between regulated and unregulated compensation payments should be based on an assessment of the cost and the value to consumers of distributor investment in new relay technologies. This will ensure that customers receive compensation payments, which is appropriate as they will experience the outages, while providing distributors with incentives to activity participate in the regime.
44. However, this proposal will require the Commerce Commission's endorsement and approval, and potentially the amendment of the Commerce Act (Electricity Distribution Services Input Methodologies) Determination 2012.
45. Therefore, Vector **recommends** that the Authority works with the Commerce Commission to ensure that the treatment of distributors' AUFLS payments carry the right incentives for distributors to participate.
46. A related matter is Part 4 compliance requirements. Under the DPP distributors must not breach their price-path, which include pass-through costs. Thus, volatility or unforeseeable payments / pass-through costs can increase the risk

that distributors will breach their price paths, without the ability to manage this risk when setting their annual prices.

47. To ensure this risk of breaching price paths does not arise, Vector **recommends** the Authority work with the Commerce Commission to ensure that AUFLS payments do not pose price-path compliance risks for non-exempt distributors. A number of methods are possible for this outcome to be achieved, for example:
- a) providing that compensation payments are passed through on a lagged basis only (i.e. compensation payments incurred in a year are passed through in a future year where they are known amounts, removing the risk of forecasting error; this can be accompanied by a use of money adjustment).
 - b) Providing a “wash-up” mechanism where any variance between the forecast of the compensation payments and actual compensation payments within a year is recovered in a subsequent year.

Value of Lost Load (VoLL)

48. Under the proposed “optimisation selection process” direct connects will be required to submit their own estimates of VoLL, while distributors’ VoLL will be determined by a central mechanism.
49. VoLL estimates will have a strong influence around the likelihood and frequency that a particular customer will experience (or not experience) an outage.
50. Therefore, Vector **recommends** that the System Operator be required to consult on its distributor VoLL estimates to allow direct-connects and distributors and load owners an opportunity to have their say, before finalising the AUFLS allocation.

Timeframe for implementation

51. Vector considers that these proposals will bring about significant changes to the way direct-connects and distributors provide (or do not provide) AUFLS and also potentially how load is used for other purposes. These significant changes include drafting Code amendments, development of the optimisation tool, coordination with other load uses, and information gathering and implementation by the System Operator and direct-connects and distributors. Given the importance of ensuring a *workable* AFULS regime, these changes should not be rushed.
52. Vector **recommends** that the Authority give the industry sufficient time to prepare themselves for the implementation of any newly proposed regime, and give itself the time to properly consider submission feedback before embarking

on significant changes such as Code amendments. Particularly as the current consultation could significantly influence such amendments.

Yours sincerely,

A handwritten signature in blue ink that reads "R. B. Girdwood". The signature is written in a cursive style with a small flourish at the end.

Bruce Girdwood
Group Manager Regulatory Affairs