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29 August 2014

John McLaren
Manager (Part 4)
Regulation Branch
Commerce Commission
Wellington

Sent by email to: regulation.branch@comcom.govt.nz

Dear John,

Proposed Quality Targets and Incentives for Default Price-Quality Paths from 1 April 2015

Introduction

1. Vector welcomes the opportunity to provide a submission on the Commerce Commission's (Commission) consultation paper *Proposed Quality Targets and Incentives for Default Price-Quality Path from 1 April 2015*, dated 18 July 2014 (Quality Paper).

2. Vector has already outlined many of its concerns on the Commission's proposed changes to the quality standard in its submission on the DPP main policy paper submission ("DPP submission"). In this submission, we wish to highlight key concerns and raise further issues. For convenience, we also attach comments raised in the DPP submission (see Appendix A).

Vector is concerned the Commission's proposal imposes unconscionable and unjustified requirements

3. In principle, Vector supports a quality incentive scheme where EDBs are rewarded or penalised for their network performance. However in our view, the current proposal imposes unconscionable requirements that are unjustified and significantly depart from the Commission's current policy position and the spirit of the IEEE Standard (which the underlying quality parameters are based on).

4. A major concern is that the Commission's proposal significantly increases the likelihood of a compliance breach and Commission enforcement action, as well as increasing regulatory uncertainty. We covered this in our previous submission, but consider it useful to clarify our view here.

5. At present, EDBs only breach the quality standard if:

   - their SAIDI or SAIFI exceeds their historical average *plus* one standard deviation in an assessment year; and
   - their SAIDI or SAIFI has also exceeded that standard in one of the two preceding years (the "two out of three rule").

6. In contrast, under the new proposal EDBs will breach if their SAIDI or SAIFI exceeds their historical average in a single year.

7. This is clearly a toughening of the compliance requirements because:

   - EDBs will likely breach (i.e. not meet their historical average) 50% of the time, or every second year; and
   - where a breach falls between the average and one standard deviation EDBs will incur a penalty payment, *and* are also at risk of further enforcement action in "exceptional circumstances" (not defined); and
   - where SAIDI or SAIFI performance is above one standard deviation in any one year, the EDB is subject to enforcement action and financial penalties, because no "two out of three rule" is being applied.

8. The Commission's proposal significantly departs from its previous policy position, where in combining a quality standard above the average with a multi-year assessment period, it recognised:

   - "*inadequate performance in a single year may not indicate an underlying trend of deteriorating performance*";[1] and
   - "*Accounting for [sampling variability] impact on reliability data is likely to provide a better reflection of underlying performance.*"[2]

9. In our view the new compliance requirements are unacceptable. They will require EDBs to increase expenditure in order to meet the new (harder) standards without any evidence consumers are willing to pay for those improvements and without any adjustment having been made to capex and opex forecasts for each non-exempt EDB to reflect the increased costs that will be incurred.

[1] *Decisions Paper: Initial Reset of the DPP,* dated 30 November 2009, paragraph 6.42.

[2] *Decisions Paper: Initial Reset of the DPP,* dated 30 November 2009, paragraph 6.35.

10. Vector **recommends** the Commission considers a quality-incentive regime with the existing quality standard parameters. That is, we recommend the quality target (i.e. the trigger for compliance) remain at one standard deviation above the historical average and the "two out of three" rule is retained.

11. We understand the Commission is concerned that setting the quality standard at the one standard deviation cap alongside an s-factor scheme would be inconsistent with the Act. We are not convinced by this (as discussed below). In any case, if the tougher quality standard is the price to pay for an incentive scheme then Vector, for one, does not want to pay that price. We value a reasonable and balanced compliance regime far higher than an incentive regime in which the payments are, in any case, too low to act as meaningful incentives. For example, Vector's incentive payment would be less than $40,000 per SAIDI minute while it would cost Vector around 50 times this amount to improve SAIDI by one minute (on average).

12. If the Commission is unwilling or unable to change its compliance requirements and normalisation approach as recommended in this submission, Vector **recommends** the Commission does not proceed with the incentive regime and instead retains the status quo. We would be happy to work with the Commission to develop a more suitable incentive regime for operation from 2020.

13. We also note that the Commission's reward/penalty regime is predicated on the assumption of a normal return. If SAIDI and SAIFI are not normally distributed (which seems likely) then the use of 1 standard deviation bands is unlikely to reward performance improvements at the same rate as it penalises performance drops.

Setting the target at 1 standard deviation plus an incentive scheme would not be inconsistent with the Act

14. As noted above, we understand the Commission is concerned that setting the quality standard at the one standard deviation cap alongside an s-factor scheme would be inconsistent with the Act. In particular:
    a. the quality standard is the point at which the business can expect to earn a normal return under the DPP;
    b. if the quality standard is the 1 standard deviation cap, then the effect of the s-factor scheme (where the mid-point is the historical average) would be that suppliers would earn less than a normal return before the quality standard had been breached. This is because, under the s-factor scheme they would pay financial penalties for performance above the historical average but below the quality standard.

15. In our view, this is not a sound basis for concluding that setting the quality standard at the one standard deviation cap alongside an s-factor scheme is inconsistent with the Act. In our view, it is necessary to look at the quality incentives model as a whole and consider which approach best meet the objectives set out in the Part 4 purpose for the long term benefit of consumers. A view that the quality standard represents the point where a supplier earns a normal return under the DPP is not based on any precise analysis but rather provides a conceptual basis for the model. This concept does not mean that suppliers would expect to earn less than normal returns such that incentives to invest and innovate would be lessened (compared to the proposed approach of setting the historical average at the mid-point).

Other issues with setting the quality standard at the historical average

16. As discussed above, the Commission proposed that the quality standard, and trigger for compliance, be set at the historical average. Overall, this means that EDBs will likely breach every second year where it will not only face a penalty but the possibility of further enforcement or pecuniary penalties. For Vector, its standard will be harder to meet by 21 SAIDI minutes (a shift from 127 to 106 minutes). While it seems the Commission is unlikely to take any action for at least most breaches that are below the one standard deviation cap, in our view this still creates an unreasonable compliance burden.

17. The Quality Paper's position also implies there will be investigations for performance between the target and the cap to determine whether or not a breach is "unintentional", which would create costs for all parties.

18. In addition, in clauses 11.5 (a) and (b) of the draft determination[3] the Commission proposes that the Compliance Statement set out reasons for achieving the target and any mitigating actions to prevent future non-compliance - irrespective of whether performance was between the target and cap, or over the cap. Statistically speaking EDBs' performance will be above the target once every two years. Therefore, we fail to see any value in requiring EDBs to explain their failure for meeting the target, or their mitigating actions - as such performance should be expected and is unexceptional (at least as long as it is still below the one standard deviation cap). Nor would it necessarily be expected that EDBs would take significant mitigating action as performance within the one standard deviation band around the historical average should be part of expected normal performance of the EDB.

[3] See clause 11.5 of the *Electricity Distribution Services Default Price-Quality Path Draft Determination 2015*, dated 18 July 2014.

19. Vector **recommends** the Commission recognises the points raised above and reconsider its Compliance Statement requirements.

Comments on other quality parameters

SAIDI and SAIFI should be normalised independently

20. The Commission also proposes a material shift in the way major event days (MEDs) are identified. As explained in detail in our previous submission (see Appendix A), the proposed approach is not a representative measure and will result in significant discrepancies in the way MEDs are represented and severely curtail the number of MEDs in a year. The overall effect will be less normalisation and thus non-representative reliability performance data. For example using Vector performance data and the Commission's beta method, we calculate that using SAIFI as a trigger (rather than SAIDI) would bring the number of MEDs down from 8 to 2 over the last 10 years. This would severely distort Vector's reliability data.

21. In addition to the recommendations on this issue that we made in our previous submission (see Appendix A), Vector considers a more appropriate approach to identifying MEDs is to normalise SAIDI and SAIFI MEDs independently. That is, a SAIDI MED is triggered when the SAIDI boundary value is reached, and a SAIFI MED is triggered when the SAIFI boundary value is reached. This approach better reflects the actual impact of major events on the underlying network performance by ensuring consistent normalisation when a MED is triggered. This is appropriate as EDBs have little to no control over the duration or number of unplanned major events. Thus, Vector **recommends** the Commission treat SAIDI and SAIFI MEDs independently.

22. Vector's second preference would be to retain the Commission's current approach to identifying MEDs, where SAIDI is used as the trigger for SAIFI.

Quality-only CPP to address significant events

23. The Commission considers that a quality-only customised price-quality path (CPP) is sufficient to address extreme events that require significant and prolonged repair work and does not consider a suspension mechanism is necessary under its proposed quality-incentive regime.

24. Vector might agree, if:
    - the proposed regime did not severely curtail the identification of SAIDI MEDs; and
    - MEDs were replaced with zero or the daily average (i.e. not the boundary value); and
    - MEDs that lasted several days could be treated as a single event.

25. In the absence of the above, we consider the proposed quality-incentive regime ought to have a suspension mechanism to help ensure data from a significant and prolonged extreme events do not unduly misrepresent distributors' underlying network performance.

26. We do not consider a quality-only CPP would be appropriate for the types of significant events envisaged to fall under a suspension mechanism. This is because a CPP provides an alternative path to cater for specific and long-term circumstances (i.e. a minimum of 3-years), can only be applied once within a regulatory period and the application and approval process is lengthy and resource intensive.

27. Thus, a CPP may be appropriate to deal with certain *long-term* significant events – i.e. where it requires several years to restore network quality to pre-event standards (e.g. earthquakes that cause widespread network damage). However, it would not be suited to address significant events that require several weeks or days to restore (e.g. storms that cause isolated damage and outages) – nor would it be feasible that an EDB working to restore the network after a severe storm and manage safety risks to also undertake a CPP application to adjust its quality-incentive. It is likely that the network effects of a storm would be resolved before a CPP application could be approved and implemented.

28. While a CPP might be appropriate for the former, we do not consider that the proposed quality-incentive regime would appropriately address the latter. If it did, data captured would not reflect normal network operations or the general deterioration of quality, but a one-off significant multi-day / -week event that would likely skew data without appropriate normalisation (as it would rely on SAIFI MEDs).

29. Vector **recommends** the Commission reconsider including a suspension mechanism to cater for shorter-term extreme events that require significant and prolonged restoration work. We encourage the Commission to consider implementing this mechanism along with guidance on what could constitute "significant and prolonged", and what it would require to gain the confidence and assurance it would need to approve its application, such as an audit and / or director.

Yours sincerely,

Bruce Girdwood
Group Manager Regulatory Affairs

Appendix A: Vector's comments on the quality standard proposals as set out in Vector's submission on the Main Policy Paper, 15 August 2014

Quality targets

30. In the absence of any adjustment in prices that reflects payment for a different level of quality, Vector **recommends** the quality standard for the 2015-2020 regulatory period should retain the same reference dataset used for calculating the quality standard for the 2010-2015 regulatory period (i.e. 2004-2009 performance data). We do not believe it is justified to change the quality target without changing price levels to pay for it (this is at the core of the price-quality trade-off). The Commission's consultation paper does not, in our view, acknowledge or respond to the principle underpinning the position Vector is putting forward. The Commission provides no analysis or argumentation other than to assert that because Vector's reliability data since 2009 reports better network performance, this "should be reflected in the current quality regime".[4]

31. There are two clear issues with this. To the extent that the performance improvement reflects investment and/or improved practices there has been and is no reward for that (price-quality trade-off at its simplest). To the extent the observed outcomes result from external events, such as spells of particularly benign weather, that may be no more than serendipity – as the Commission is aware a series of high wind events have caused Vector's network reliability to exceed the regulatory reliability limit in the regulatory year 2014 and in the first 4 months of the regulatory year 2015 Vector has experienced three major storm events that were well in excess of the design limits of our network assets. Vector's is not the only network to have suffered in this way.

32. By tightening the effective network reliability performance criteria, the Commission is implicitly incentivising additional expenditure on the network, even though there is no specific allowance for this in the operating and capital expenditure assumptions the Commission relies on.[5] The Commission provides no evidence that consumers want a higher level of network reliability and/or are prepared to pay for it.

33. The Commission's proposed approach provides a strong signal for increased expenditure as it effectively moves the reliability standard (the point of non-compliance) from a reliability limit of 127 minutes for Vector down to 106 minutes. Again, without the necessary additional expenditure to manage to this level being

[4] Commerce Commission, *Proposed Quality Targets and Incentives for Default Price-Quality Paths From 1 April 2015*, 18 July 2014, paragraph 4.12.1.

[5] To the extent that the Commission relies on AMP data, for example, Vector's AMP does not reflect an improvement in average SAIDI from 114 minutes (or the current effective target of 127 minutes) to 106 minutes.

reflected in the expenditure assumptions and without any price adjustment (or consumer support for the changed price-quality trade-off).

34. The net effect of this is that the Commission is invoking efficiency improvements that are above and beyond those accommodated within an appropriately set rate of change factor.

35. However, we do acknowledge the draft decision to set reliability targets based on an average of performance over the past 10 years is better than using an average of performance over the most recent 5 years, given the high variability of unplanned outages.

The Commission's compliance approach fails to provide certainty

36. In our view the Commission's consultation papers provide conflicting messages on the compliance approach it will take to quality breaches. In the Proposed Compliance Requirements paper, paragraphs 4.5 and 4.6 say:

> *Failure to meet the SAIDI target or SAIFI target would constitute non-compliance with the quality standards. We do not propose to take enforcement action for performance worse than the quality targets but still the below the SAIDI or SAIFI cap (the limit for poor performance beyond which the automatic penalty no longer increases) except in exceptional circumstances. The revenue-linked quality scheme will therefore provide distributors with greater certainty on when the Commission is likely to take enforcement action for non-compliance with the quality standards.*
>
> *In exceptional circumstances where quality standards are not met, we may still seek pecuniary penalties under s 87 or criminal sanctions under s 87B of the Commerce Act for that underperformance. Such enforcement action would be in addition to the penalty under the revenue-linked quality incentive scheme.*

37. However, paragraphs 2.19 and 2.20 of the Proposed Quality Targets and Incentives paper say:

> *Failure to meet the SAIDI target or SAIFI target would constitute non-compliance with the quality standards. The Commission may take enforcement action and seek pecuniary penalties under section 87 of the Commerce Act, or criminal sanctions under section 87B of the Commerce Act, for failure to meet the quality standards.*
>
> *In the case of unintentional breaches, we do not propose to take enforcement action for performance worse than the quality targets but still the below the cap except in exceptional circumstances. The revenue-linked quality scheme will therefore provide distributors with greater*

certainty on when the Commission is likely to take enforcement action for breaches of the quality standards.

38. We thank the Commission for providing clarification of its intentions regarding quality standard compliance. We understand that the Commission's actual enforcement position is as follows:

    a) No enforcement action taken for quality performance above the targets but below the caps, except in exceptional circumstances (not defined).

    b) Enforcement action will be considered for performance above the caps based on the Commission's standard enforcement criteria, including criminal and pecuniary sanctions under the Commerce Act (and no "2 out of 3" rule will apply).

39. This clarification differs from how Vector interpreted either of the consultation papers set out above. It is, in our view, safe to say that the revenue-linked scheme is not yet "providing distributors with greater certainty on when the Commission is likely to take enforcement action."[6]

The two-out-of-three rule should be retained

40. The Commission's draft determination no longer contains the "two out of three year" assessment rule, on the grounds that this may provide an incentive for distributors to exceed the reliability limit once every three years. Although we recognise that it is theoretically possible to deliberately breach the SAIDI reliability limit in any particular year, it is completely implausible that any distribution company would deliberately do this and still be comfortable with the premise that they could 'manage' SAIDI and SAIFI to ensure they remain under the limit in any two future years after a 'deliberate' breach. Deliberately managing a SAIDI or SAIFI outcome to below that of the 'natural' historical network performance, is an extremely costly exercise (orders of magnitude higher than the currently proposed incentive) and it is not realistic for any EDB to consider this scenario.

41. It should also be recognised that on a purely statistical basis,[7] even if the reliability limit is one standard deviation from the mean average, it is probable a distributor will breach the reliability limit once in every six years even when underlying performance of the network has not changed. We do not believe it is reasonable to penalise a distributor for an outcome that will statistically occur once every six years (assuming the Commission does not take enforcement action for performance between the target and the cap, which will occur once every two years).

[6] For example, Compliance Requirements Paper, paragraph 4.5.

[7] This assumes SAIDI and SAIFI are normally distributed, which may not be the case.

42. Moving away from the one standard deviation reliability limit and the "two out of three year" assessment rule constitutes a significant and draconian change in compliance obligations. Vector considers these changes to be harsh and unconscionable and would not support a quality incentive scheme based on these parameters.

43. Vector **recommends** the quality standard and trigger for a compliance breach is set at one standard deviation above the historical average, and the "two out of three rule" be retained. The introduction of the revenue-linked incentive scheme is not a justified reason to move away from this approach. Vector further **recommends** that where it is clear the reason for a breach is extreme weather events, the Commission should then not take further enforcement action.

Major event days

44. Vector notes the Commission's proposal that SAIFI rather than SAIDI should be used as the trigger for identifying major event days. Although the Commission's theory behind why SAIFI may be a more appropriate trigger is interesting, in our opinion there are several reasons why it is not appropriate in the manner suggested.

45. The 2.5β method that the Commission has chosen to adopt (in line with IEEE Standard 1366), is predicated on the fact that 2.3 days per year is the appropriate number of major event days that an EDB should experience. Using Vector's own performance data over the last 10 years, we calculate that using SAIDI as the trigger with the current 2.5 β method (albeit with modified k-values), we would have experienced 8 MEDs over the last 10 years (0.8 days per year) using the current 2.5 β method (albeit with modified k-values). However, using the SAIFI boundary value would only have resulted in 2 MEDs over the same time period (or 3 MEDs if the boundary value is rounded as per the Commission's analysis). This is clearly a significant discrepancy that goes to demonstrate that certainly in Vector's case (and, we understand, for other EDBs), the use of SAIFI as a trigger is counter to the original intent of the 2.3 days a year being classified as MEDs and is therefore not a representative measure. If SAIFI is to be used, more analysis will be needed to determine what the appropriate multiplier should be in the beta method equation and / or whether the beta method in its entirety is still appropriate for use as a methodology. The Commission should not implement SAIFI as the trigger for MEDs without completing and consulting on this comprehensive analysis.

46. In addition, the Commission raises concerns that:[8]

[8] Main Policy Paper, paragraphs 6.27 and 6.32.

c) using SAIDI creates a meaningful incentive for EDBs to allow durations of interruptions to continue in order to meet the SAIDI boundary and thus be normalised; and

d) after the boundary value is reached, EDBs have no incentives to reduce the duration of an interruption, thus in principle some incentives should be in place to ensure EDBs continue to aim to restore supply as quickly as possible even after the boundary value is reached.

47. These views are, with respect, divorced from reality. In a real major event situation, all efforts are focussed on addressing unsafe situations and restoring power to affected customers. It is not realistic (or even practically possible) to start calculating SAIDI or SAIFI during the middle of an event to determine whether boundary values are about to be exceeded. Vector has very strong incentives, including financial and reputational, to restore power as quickly as possible following an outage (as do other EDBs). As an example, Vector has experienced significant outages on our network due to recent storm events and we have placed substantial focus and effort on restoring power as quickly as possible to all consumers.

48. The only constraints on speedy restoration are the number of crews available and able to be deployed safely (i.e. responsibly managing fatigue), Council-imposed traffic management requirements and the general weather conditions which may make restoration work unsafe. Purposely delaying restoration would not only have a significant negative reputational impact but, through the extended mobilisation of response crews, would have a material detrimental impact on expenditure, which is its own financial incentive.

49. The Commission must not create perverse incentives for EDBs to push their restoration teams harder to the extent that health and safety risks are exacerbated.

50. We also wish to reiterate our concerns about replacing actual reliability performance with the boundary value for MEDs. We understand that the primary purpose of employing reliability targets and limits is to ensure that the underlying integrity of a distributor's network performance is not degraded from an average historical benchmark. The concept behind MEDs is to recognise that certain events should not be designed or resourced for under normal circumstances, as this is not economic or practical. The removal of MEDs (as recommended by the IEEE) is therefore desirable, to better reveal trends in daily operation that would otherwise be hidden by the large statistical effect of major events. Activities that occur on days classified as MEDs should be separately analysed and reported. By restoring the boundary values for MEDs, significant distortion of the underlying reliability trends are re-introduced, for little discernable benefit.[9]

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[9] By way of example, Vector has already experienced three MEDs in the first quarter of RY14 – all related to extreme weather and wind-speeds. Even though these events

51. To therefore penalise a distributor by using the boundary value instead of substituting with either a daily average or removing the major event day altogether, goes against the spirit of, and certainly does not align with, the overall IEEE Reliability Indices methodology that the Commission has based the rest of their proposal on. Vector **recommends** that where a MED is identified, the actual reliability value is replaced with zero (i.e. removed), or replaced the daily average.

Adjustment to targets to remove effect of breaches

52. Vector does not agree with the proposal to adjust the quality performance data for EDBs that have breached, with the effect that EDBs will not receive a higher target as a result of the breach. As noted above, any view the Commission has that EDBs deliberately exceed the reliability limit is divorced from reality and unsupported by any evidence. As the Commission is aware, even with a target set at 1 standard deviation above the historical average and a "2 out of 3 rule" applied, statistically EDBs will still expect to breach the target from time to time due to natural variation in quality (e.g. due to weather patterns).

53. On a theoretical, statistical, basis this should balance itself out over time with a similar number of years also achieving performance results greater than 1 standard deviation below the target. However, if the Commission artificially adjusts all years on the high side of the reliability limit downwards, without artificially also adjusting all years greater than 1 standard deviation below the average, this deliberately makes the distribution asymmetrical, skewing the long term average performance of the network, deliberately (and unfairly) ratcheting down the long term average. This will then potentially result in lower long term targets being set for the EDB in question, with no associated price benefit.

54. Further, it is important to note that including MEDs into the Assessment Period data will skew the normal distribution. This is because there is no scenario that would allow an equally sized negative event to balance the overall dataset distribution. Because of this, the proposed quality incentive programme also becomes unfairly skewed, making it easier to be penalised for poor performance (through MEDs) than it is to be rewarded for good performance. We believe this goes against the overall intent.

55. We do not believe it is appropriate to set a quality standard that is lower than the historical average for those distributors that have breached – we certainly do not

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were normalised, the overall impact of reinstating the boundary value is adding over 26 SAIDI minutes to the reliability statistics – doubling the normal quarterly figure. This makes an accurate assessment of the real underlying performance of the network very difficult.

believe it is in the consumers' interests, as it will require additional expenditure to maintain this new, lower average in the long term, with no evidence that this is what consumers demand.

Multi-day storm events

56. The Commission has stated that it does not agree with submitters that maximum event days that span multiple days and cause multiple individual outages should be treated as a single event.

57. Vector notes that the Commission's view seems to be at odds with its previous position, as set out in 2007.[10] In our view, this new proposal would effectively toughen the quality standard and thus is not a step that should be undertaken lightly. Outages caused by storms can often span several days, where it can be unsafe to make repairs on the first day, for example. Although single interruptions spanning several days can clearly be rolled up into the first day under the proposed methodology, the knock-on effect of not being able to get to new interruptions because a distributor is still dealing with the first interruption must also be recognised and accommodated for.

58. There are already good safeguards in place to ensure the current multi-day storm application of MEDs is done correctly. It requires audit and director approval and the EDBs are required to demonstrate the definition of a multiple day event has been met in their compliance statements. Therefore, Vector **recommends** the Commission keep the ability to treat multi-day major events as a single event.

Weighting of planned interruptions

59. We welcome the Commission's proposed change to weight planned SAIDI at 50% of unplanned interruptions. This recognises that planned interruptions are normally more desirable than unplanned and have less of an impact on consumers.

[10] http://www.comcom.govt.nz/dmsdocument/625