Submission on the Default Price-Quality Paths from 1 April 2015: Main Policy Paper

15 August 2014

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1. The core of a DPP will always be the price and quality components. In these areas, unfortunately, Vector considers key aspects of the Commission's draft decision to be deficient. The Commission's forecasts of capex and opex deliver insufficient revenues to maintain necessary investment levels on our network. The forecasts have the effect of cutting the capex and opex Vector can spend below the level we believe is prudent and necessary to meet Auckland's growth demands; this will affect the quality of service that is provided to consumers. The Commission should acknowledge the potential impacts and incentives that result when they arbitrarily reassess judgements made by regulated suppliers in this way.

2. Also, the Commission's approach to forecasting revenue growth has maintained an approach involving flawed assumptions, even where available evidence and the experience in the current regulatory period demonstrates this is invalid and suppresses the ex ante expectation of and actual level of returns. The expectation of not earning a commercially appropriate rate of return that results from these incorrect assumptions is chilling on investment incentives, in the same way that setting the cost of capital too low is. This is also contrary to the Commission's core principle of NPV=0.

3. Meanwhile, on the quality side, the Commission's proposal increases the likelihood (and costs) of non-compliance. This creates perverse incentives for Vector to push field crews harder and increases health and safety risks, which is at odds with recent legislative reform in the area of health and safety.

4. These price and quality proposals for the next regulatory period follow a regulatory period in which Vector (and most other EDBs) have failed to earn their regulatory WACC. Faced with the prospect of continuing to earn less than WACC in the 2015-2020 period investment incentives and business confidence in the regime will unfortunately be undermined.

5. Overall, Vector sees an approach that pushes prices lower through incorrect growth assumptions, while toughening the quality requirements. In the short term, this represents implied efficiency requirements above and beyond those accommodated within an appropriately set rate of change factor and in the longer term, this approach will not be sustainable.

6. We also strongly disagree with the Commission's view that the revenue shortfall suffered by all EDBs, including Vector, in the current regulatory period due to errors in the Commission's forecast CPI will not be compensated for. In our view, facing this risk was never a feature of the regulatory debate in the input methodology process where it was posited that all businesses should have a reasonable ex ante expectation of earning an appropriate rate of return on capital, such that the NPV=0 principle would apply.

7. However, Vector does welcome many of the refinements the Commission is proposing to make to the DPP, for example the improved incentives regarding energy efficiency, the extended suite of recoverable costs and the new approach to managing transmission charges.

Consumers must benefit from price reductions

8. We are concerned that nothing is being done to ensure any price reductions required by the Commission are passed on to consumers by retailers.

9. In our view, a mechanism needs to be put in place urgently to ensure that any price reductions required by the Commission flow through in full to consumers. The aim of Part 4 regulation is to deliver long-term benefits to consumers and significant resources are expended for this purpose. It is unacceptable that consumers have not seen their prices reduced such that they fully benefit from the lower lines charges resulting from efficiency gains and Commission price reset decisions. Vector believes the Commission should work with the Ministry of Business, Innovation and Employment and the Electricity Authority to give effect to the Part 4 Purpose and ensure price reductions are being passed through by retailers in all network areas.

Incentives for Service Quality

10. In this submission we comment on some key aspects of the Commission's quality standards proposal.

11. 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. 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.

12. By tightening the effective network reliability performance criteria, the Commission is implicitly incentivising additional expenditure on the network. While there is no specific allowance for this in the operating and capital expenditure assumptions the Commission relies on,[1] the Commission provides no evidence that consumers want a higher level of network reliability and/or are prepared to pay for it.

13. 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.

14. The Commission proposes that the legally-binding quality target will be set at the historical average. The effect of this is that Vector will expect to break the law every second year. Even with a Commission commitment to only take action in exceptional circumstances (which is by no means clear, as the consultation papers produced are somewhat contradictory on this point), this is unreasonable. 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.

15. 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 EDB 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.

16. Vector also does not agree with the proposed changes to the treatment of major event days. Our analysis of the data shows that using the 2.5β method in conjunction with using SAIFI rather than SAIDI as the trigger results in significantly less MEDs, and is therefore counter to the original intent of the 2.3 days a year being classified as MEDs. In short, it is not a representative measure. The Commission's view that using SAIDI creates a meaningful incentive for EDBs to allow durations of interruptions to continue

[1] 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.

in order to meet the SAIDI boundary and thus be normalised is, 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.

17. We are concerned that with some of these proposed quality reforms, the Commission is unintentionally creating perverse incentives for EDBs to push their restoration teams harder to the extent that health and safety risks are exacerbated.

18. We also wish to reiterate our concerns about replacing actual reliability performance with the boundary value for MEDs. 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. By restoring the boundary values for MEDs, significant distortion of the underlying reliability trends are re-introduced, for little discernable benefit.

Pass-through and recoverable costs

19. Vector welcomes the Commission's agreement to implement a form of revenue cap for transmission charges, which will mean these recoverable costs are not subject to forecast risk or volume risk. However, Vector's preference remains for the revenue cap approach to be applied to all pass-through and recoverable costs. Vector also disagrees with the Commission's proposal not to allow any negative balance of unrecovered costs to be carried over into the next regulatory period. This proposal is:

a) Unexplained and unsupported by any analysis; and
b) Will result in Vector (and other EDBs) always under-recovering transmission charges in the final year of the regulatory period, contrary to the Commission's own principle that "distributors should be able to recover pass-through and recoverable costs in full".

Productivity estimates

20. Vector considers that the Commission should apply a principled approach to setting the X and opex partial productivity factors. We do not agree with Economic Insights' view that X should be zero if a partial building blocks approach is used to set starting prices but should be -1% if the Commission chooses to roll-over prices from the current regulatory period. Vector

supports the ENA recommendation of setting the X-factor at -1 and the opex partial productivity factor at -2.

Catastrophic events and change events

21. Vector mostly agrees with the position the Commission has reached on reopening the DPP following a catastrophic event. However, Vector believes the reopener mechanism should also apply to change events. We see no principled reason why costs between the date of the event and the date the DPP is re-determined should be treated differently depending on the nature of the event. Also, a change event is more likely than a catastrophic event to affect all EDBs at once – so providing for cost recovery from the date of a change event would reduce the risk that many or all EDBs will feel the need to apply for a CPP.

Introduction

22. This submission responds to the Commerce Commission's (Commission) consultation on its draft decision on default price-quality paths from 1 April 2015, dated 4 July 2014. In particular, it responds to the following consultation material included in the draft decision: the Commission's paper *Proposed Default Price-Quality Paths for Electricity Distributors From 1 April 2015* (Main Policy Paper), Economic Insights' paper *Electricity Distribution Industry Productivity Analysis: 1996-2013* (Productivity paper) and the supporting models. This submission also sets out Vector's high-level view of the package of DPP proposals, across all consultation papers released by the Commission.

General comments on package of DPP proposals

23. The core of a DPP will always be the price and quality components; specifically how the MAR and the quality standards are set. In these areas, unfortunately, Vector considers key components of the Commission's draft decision to be deficient. The Commission's forecasts of capex and opex deliver insufficient revenues to maintain necessary investment levels on our network (assuming the WACC was sufficient to incentivise these investments).

24. The forecasts have the effect of cutting the capex and opex Vector can spend below the level we believe is prudent and necessary to meet Auckland's growth demands; this will affect the quality of service that is provided to consumers. The Commission should acknowledge the potential impacts and incentives that result when they arbitrarily reassess judgements made by regulated suppliers in this way.

25. We have previously submitted on the mechanics of the Commission's model for determining the appropriate starting price for each non-exempt EDB. However, the outputs of a model are only ever as good as the quality of the inputs, in this case critical assumptions for determining current and projected profitability. Assumptions and forecasts on factors that Vector has little or no control over can lead the Commission to assume faster rates of revenue growth (for example) than Vector considers realistic. This gives rise to two negative impacts on Vector: the Commission sets the starting price at a level lower than it would if its assumptions were more in line with Vector's own assumptions; and Vector's revenues will track a lower growth path over the regulatory period if the Commission's assumptions prove to have been

optimistic (and Vector's more realistic). This is precisely what transpired over the 2010-2015 period and key assumptions of the Commission's draft DPP decision suggest this will happen again. Vector will have only limited ability to respond (by adjusting operating and capital expenditures) to ensure a commercially appropriate rate of return is earned. The expectation of not earning a commercially appropriate rate of return for these reasons is chilling on investment incentives, in the same way that setting the cost of capital too low is.

26. The Commission's approach to forecasting revenue growth has maintained a series of incorrect assumptions such as a flat trend of energy usage per customer, even where available evidence demonstrates this is invalid. This is contrary to the Commission's core principle of NPV=0.

27. Meanwhile, on the quality side, the Commission's proposal increases the likelihood (and costs) of non-compliance. We are concerned that with some of the proposed quality reforms, the Commission is unintentionally creating perverse incentives for Vector to push field crews harder and increases health and safety risks, which is at odds with recent legislative reform in the area of health and safety. The proposed quality incentive regime does not look likely to achieve its objectives of strengthening incentives to deliver quality improvements and providing more certainty over the enforcement approach (for clarity, in principle an incentive-based scheme may well be appropriate - our concern is with the proposed implementation).

28. These price and quality proposals for the next regulatory period follow a regulatory period in which Vector (and most other EDBs) have failed to earn their regulatory WACC. Our reported WACCs for 2013 and 2014 were 8.27% and 7.52% respectively;[2] far less than the 8.77% needed to deliver a normal return. Faced with the prospect of that continuing, irrespective of changes to the WACC percentile, investment incentives and business confidence will unfortunately be undermined.

29. Overall, Vector sees an approach that pushes prices lower through incorrect growth assumptions, while toughening the quality requirements. In the short term, this represents implied efficiency requirements above and beyond those accommodated within an appropriately set rate of change factor; in the longer term this approach will not be sustainable.

[2] Note that these values were calculated using actual CPI and the 2015 DPP model IRR calculation. Using the ID IRR calculation, the reported values are 7.93% and 7.19%, which are further below the regulated WACC.

30. We also strongly disagree with the Commission's view that the revenue shortfall suffered by all EDBs in the current regulatory period due to errors in the Commission's forecast CPI will not be compensated for. In our view, facing this risk was never a feature of the regulatory debate in the input methodology process where it was posited that all businesses should have a reasonable ex ante expectation of earning an appropriate rate of return on capital, such that the NPV=0 principle would apply.[3]

31. However, Vector does welcome many of the refinements the Commission is proposing to make to the DPP, for example the improved incentives regarding energy efficiency, the extended suite of recoverable costs and the new approach to managing transmission charges.

32. Vector will address these issues in detail in the package of submissions we put forward on the DPP consultations and make recommendations to improve the proposals such that they are workable and deliver good outcomes. This submission on the "Main Policy Paper" addresses quality standard information, productivity analysis, energy efficiency and some other high-level points. The companion submission on "Forecasting Approaches" will address the forecasts of revenue, opex and capex as well as the forecast of CPI for revaluation purposes.

Consumers must benefit from price reductions

33. Including the gas pipeline decision of 2013, the decision regarding electricity prices from 1 April 2015 will be the third starting price adjustment decision made by the Commission under Part 4 in which significant price reductions will be required for regulated energy network businesses.

34. Vector notes the Commission's point that: "because distribution is only one part of the electricity supply chain, changes in the price limits do not translate into corresponding changes in average electricity bills".[4] However, we are concerned that nothing is being done to ensure any price reductions required by the Commission are passed on to consumers by retailers. Such a pass through would be expected to occur in workably competitive markets.

35. The aim of Part 4 regulation is to deliver long-term benefits to consumers and significant resources are expended for this purpose. It is unacceptable that

[3] Issues regarding forecasts of CPI for revaluation purposes are discussed in our submission on DPP Forecasting Approaches, issued on the same date as this submission.
[4] Main Policy Paper, paragraph 3.10.

consumers have not seen their prices reduced such that they fully benefit from the lower lines charges resulting from efficiency gains and Commission price reset decision. Vector **recommends** the Commission work with the Ministry of Business, Innovation and Employment and the Electricity Authority to give effect to the Part 4 Purpose and ensure price reductions are being passed through by retailers in all network areas. One potential mechanism is for MBIE or the Authority to require retailers to disclose the components of their prices and how these values have been passed through. The Commission should do everything it can to promote the implementation of these arrangements to ensure they are applicable for the 1 April 2015 electricity price changes.

Incentives for Service Quality

36. Vector will comment further on the proposed quality incentives regime in our submission on the Quality Targets and Incentives consultation, due 29 August. In this submission we discuss key issues that we believe are sufficiently important that they should be raised as soon as possible.

Quality targets

37. As discussed in our previous submission, 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".[5]

38. 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

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

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.

39. 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.[6] The Commission provides no evidence that consumers want a higher level of network reliability and/or are prepared to pay for it.

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

41. 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.

42. 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.

Need for clarification on the Commission's compliance approach

43. 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:

[6] 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.

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.

44. 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.

45. 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 (and no “2 out of 3” rule will apply).

46. 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."[7]

47. Below we provide a response based on what we think the Commission is proposing (i.e. paragraph 45 above).

Target based on historical average should not be the trigger for a compliance breach

48. The Commission proposes that the quality target will be set at the historical average. While it seems the Commission is unlikely to take any action for at least most breaches that are below the 1 standard deviation cap, in our view this still creates an unreasonable compliance burden. The Quality Targets paper position also implies there will be Commission 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.

49. The effect of the Commission's proposal is that Vector will expect to break the law every second year. Even with a Commission commitment to only take action in exceptional circumstances (and it is not clear what this means), this is unreasonable and therefore unacceptable. It will trigger internal processes to manage and review compliance risk and is likely to distract attention from sensibly managing the business to respond to the incentives embedded in the price-quality path. We do not see any circumstances in which it would be appropriate for the quality standard target (i.e. the point of non-compliance) to equal the mid-point of the historical performance.

50. It is clear that quality performance will vary each year based on weather and other factors. Thus the regulator may expect performance within a reasonable statistical range for the relevant group of assets. In our view, it is performance outside of that range which should be targeted for review by a sensible regulator seeking to protect consumers' interests. Assessing performance based on a target that is the historical average, which should be the middle of the range (assuming a normal distribution) is not sensible.

Two-out-of-three rule should be retained

51. Also, 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.

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

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.

52. It should also be recognised that on a purely statistical basis[8], 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 more often).

53. 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.

54. Vector **recommends** the trigger for a compliance breach is set at 1 standard deviation of the historical average, plus the "two out of three" rule. The introduction of the revenue-linked incentive scheme is not a 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

55. 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.

56. 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

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

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.

57. In addition, the Commission raises concerns that:[9]

a) 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
b) 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.

58. 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.

59. The only constraints on speedy restoration are the number of crews available and able to be deployed safely (i.e. responsibly managing fatigue), Council-

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

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.

60. 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.

61. 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.[10]

62. 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.

Adjustment to targets to remove effect of breaches

63. 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,

[10] 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 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.

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).

64. 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.

65. 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.

66. 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 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

67. 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.

68. Vector notes that the Commission's view seems to be at odds with its previous position, as set out in 2007.[11] 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.

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

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.

69. 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.

Weighting of planned interruptions

70. 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.

Other comments on the quality standards

71. We will address the proposed changes further in our submission on the Quality Targets and Incentives consultation paper.

Pass-through and recoverable costs

72. Vector will comment in more detail on the proposed approach to pass-through and recoverable costs in our submissions on the DPP companion papers, due 29 August. We comment below on two items that do not need to wait until the later submission date.

Revenue cap approach

73. Vector agrees with the Commission's draft decision to implement a form of revenue cap for transmission charges, which will mean these recoverable costs are not subject to forecast risk or volume risk. We were pleased to have been able to assist the Commission with drafting of this proposal.

74. However, Vector's preference remains for the revenue cap approach to be applied to all pass-through and recoverable costs. While we understand that separating out the smaller pass-through and recoverable costs from other charges may be an additional task for some EDBs, that task should only be challenging the first time it is applied, if it is challenging at all, while the

benefits of reduced volume and forecasting risk will apply to all EDBs each year thereafter. Net benefits are therefore likely to be maximised by applying the revenue cap approach more widely. Based on the draft IMs already prepared, we do not believe it would be a difficult task to re-draft the IM amendments to capture all pass-through and recoverable costs.

75. Vector strongly disagrees with the Commission's proposal not to allow any negative balance of unrecovered costs to be carried over into the next regulatory period[12] (rather than leave this topic to the submission on compliance requirements that is due at the end of August). The Commission's proposal is:

a) Unexplained and unsupported by any analysis; and
b) Contrary to the Commission's own principle that "distributors should be able to recover pass-through and recoverable costs in full".[13]

76. Vector proposed a requirement to have a zero or negative balance at the end of each regulatory period as a means to remove the risk that EDBs would continually over-recover and never pass the over-recovery back to consumers. A requirement to have a zero or negative balance on a regular basis seemed a pragmatic way to achieve this outcome.

77. However, as the Commission should be aware, in practice the requirement to have a zero or negative balance in the final year of a regulatory period will mean that EDBs will almost always under-recover transmission charges in that year. This is because the need to forecast both quantities demanded in the year and the level of the transmission charges themselves will create a high risk of forecasting error. Our expectation would be that Vector will under-forecast and, hence, under-recover in that year in order to avoid the risk of a price path breach (in the context of the Commission reacting strongly to some recent price path breaches of relatively small dollar values resulting from forecast errors).[14]

78. This under-recovery is only acceptable if the negative balance can be carried forward into the following year. If that is prevented, Vector will always expect to under-recover their transmission charges, thus defeating the Commission's own principle as quoted above and affecting their ability to fund other expenditure. It is unacceptable for Vector to bear the recovery risk of

[12] Commerce Commission, *Proposed Compliance Requirements for the 2015-2020 Default Price-Quality Paths for Electricity Distributors*, 18 July 2014, paragraph 3.50.
[13] Main Policy Paper, paragraph 5.2.
[14] Vector has also had its own experience of regulatory intervention following a de minimis error in forecasting transmission costs.

another regulated entity (Transpower) who in turn bears no recovery risk. We recognise the Commission's proposal goes some way to rectifying this but does not fully resolve the problem. Vector **recommends** the Commission provides for a negative balance to be carried over to the following regulatory period. We would be happy to provide suggested drafting to achieve this if that would assist.

Impact of full pass-through on incentives to manage costs

79. Vector notes the view of Genesis Energy that full pass-through of costs removes any incentive for distributors to ensure increases in pass-through and recoverable costs are reasonable.[15] Vector disagrees. As the Commission recognises, pass-through and recoverable cost amounts are outside the control of distributors so any regulatory incentives for distributors to control these costs would have limited effect. Furthermore, in the case of transmission investment, both the Electricity Authority and the Commission make decisions regarding the investment proposals and the allocation of costs/revenue recovery. Genesis and other parties have the ability to make representations to the regulators in these processes.

80. Further, EDBs already review and seek to influence these costs where they can. For example, as the Commission will be aware, regulated firms scrutinise and submit on regulator appropriations and work programme proposals, including recommending reductions in appropriations or changes in work priorities.

Productivity Estimates

Appropriate level of X-factor and opex partial productivity factor

81. Vector supports the submission of the Electricity Networks Association and the reports by Pacific Economics Group (PEG) on the electricity distribution industry productivity analysis and the X-factor.

82. Vector considers that the Commission should apply a principled approach to setting the X and opex partial productivity factors. We do not agree with Economic Insights' view that X should be zero if a partial building blocks approach is used to set starting prices but should be -1% if the Commission chooses to roll-over prices from the current regulatory period. Section 53P(6) of the Act requires the rate of change to be based on the long-run average

[15] Main Policy Paper, footnote 40.

productivity improvement rate achieved by New Zealand and/or comparable international suppliers of the regulated services. The legislation does not tie the rate of change to the form of price setting (per section 53P(3)) and it defies logic to argue that this long-run average productivity improvement rate varies depending on the method the Commission uses to set prices at the next reset.

83. Vector **supports** the recommendation of ENA that the Commission should adopt a -2% per annum opex partial productivity factor and -1% X-factor, consistent with the evidence in the PEG report. The analysis of PEG should be preferred because it is consistent with the Commission's broader forecasting approach (e.g., use of all-industries LCI, and opex forecast drivers) whereas the EI analysis is not

84. At the last reset, the Commission's decision to set an X-factor of zero was supported by the reports of both PEG and Economic Insights. For this reset, the recommendations of the two expert reports have diverged. If the Commission does not accept the recommendation of ENA on the values for the X-factor and opex partial productivity factor, Vector **recommends** setting the X-factor and the opex partial productivity factor around the middle of the ranges identified by the two experts. By our calculations this means setting these factors in the range of -1% to -1.5%.

Relevance of Economic Insights' expectations of future demand growth

85. Economic Insights identifies a significant change in market conditions since at least 2007 in which electricity throughput has grown far less rapidly than in previous years. This is an internationally observed phenomenon. However, Economic Insights offsets this by "anticipating a return to more positive output growth".[16] This anticipation seems to be based on a view that electricity demand will return to positive growth. With respect, this "anticipation" is not well founded and should not be relied on by the Commission. The only source quoted by Economic Insights in support of this anticipation is the Australian Energy Regulator, which sources its information from the Australian Energy Market Operator's (AEMO) National Electricity Forecasting Report 2013.[17] AEMO forecasts annual growth in the Australian National Electricity Market to grow at 1.3% per year over 2014-2023. However, it is not at all clear that the drivers of this growth are relevant in the New Zealand context. The drivers identified by AEMO are:

[16] Economic Insights report, page 40.
[17] Australian Energy Regulator, *State of the Energy Market 2013*, footnote 6, page 21. Also see the link at footnote 18 of this submission.

a) Three large LNG projects in Queensland that "are the main drivers of the forecast increase in large industrial annual energy consumption".

b) "Continued increases in rooftop PV systems and energy efficiency savings from new building regulations offset NEM residential, commercial and light industrial annual energy growth".

c) Population growth in the NEM.

d) "Lower-than-expected growth in most industrial sectors", reflecting the closure, deferral and reduced operations of some major users.

86. Items (a) and (d) are Australia-specific and it seems likely that these major customers would be supplied directly from the transmission network. Items (b) and (c) have parallels for New Zealand EDBs but the rates and impacts will be quite different. We also note that AEMO's forecasts have already turned out to be too high – AEMO provided an update which reported that in the first quarter of the 2013-14 year, actual consumption was 3.5% lower than it had forecast and reduced its forecasts for the remainder of 2014 accordingly.[18]

87. In conclusion, Vector does not believe that the AER view of future demand trends in Australia (informed by Australia-specific forecasts that already look too high and incorporate transmission customers) is a relevant input into setting the X-factor or the opex partial productivity factor for New Zealand EDBs.[19]

Energy efficiency incentives

General comments

88. Vector broadly supports the Commission's proposal and principles for improving the regulatory incentives for EDBs to invest in energy efficiency and demand side management (DSM), which give effect to many of the findings of the Electricity Networks Association's Electricity Efficiency Incentives Working Group (ENA EEI Working Group).

89. Vector welcomes the Commission's proposal to introduce a capex incentive to overcome the inherent disincentives contained in the default 45-year life

[18] http://www.aemo.com.au/Electricity/Planning/Forecasting/National-Electricity-Forecasting-Report-2013

[19] This is not to say that overseas data is necessarily irrelevant, but in our view the forecasts relied on by Economic Insights is not comparable in this context for reasons set out above.

profile for new assets commissioned within the regulatory period. This standard investment profile currently makes it challenging for Vector to justify investment in assets that have a much shorter life-time, as many energy efficiency investment are likely to have, than the default setting in the DPP IMs.

D-factor

90. The introduction of a D-factor should also encourage EDBs to seek out opportunities for energy efficiency and DSM. Under a weighted-average price cap and in the absence of a D-factor, where there is growing demand EDBs are more likely to meet network growth by expanding network capacity than undertake initiatives to reduce demand growth.

91. Vector supports the Commission adopting a principles-based approach to establishing a link between energy efficiency and foregone revenue. The Commission noted that such an approach does provide a level of discretion and flexibility on the information for discharging the burden on whether or not an initiative has satisfied the Commission's principles. The Commission needs to ensure it applies the principles in a manner that is seen to be reasonable and cost-effective or this discretion will in itself become a dis-incentive for investment in energy efficiency and DSM.

Ex-ante view on D-factor proposals should be available

92. Vector **recommends** EDBs are able to obtain an *ex-ante* view from the Commission on the suitability of the *methodology* for determining foregone revenue associated with a proposed D-factor initiative.

93. While such a view would be "in principle", it would provide EDB management with improved information about the expected value of an energy efficiency or DSM business proposal before they commit to the investment decision. In the absence of such a view Vector would have less confidence that foregone revenue would be able to be recovered (as noted above, Commission discretion is itself a disincentive if not managed carefully) and this will unnecessarily stifle innovative investments.

94. Vector believes that determining the foregone revenue *methodology* up front to ex-post assessments of the D-factor will remove much of the uncertainty with the financial compensation process.

D-factor should also apply to tariff changes

95. Vector supports inclusion of tariff measures in the D-factor. This should unlock further opportunities for innovation that are currently inhibited by fears of revenue erosion – i.e. because EDBs will be uncertain as to the uptake of and behavioural changes resulting from time-of-use tariffs, they will most likely be reluctant to introduce strong pricing signals.

EDBs should also be able to capture a portion of wider benefits of the investments

96. While the D-factor for foregone distribution revenues does neutralise the bias of EDB's to undertake network augmentation investment, it does not necessarily capture the wider net benefits that energy efficiency and DSM have on the energy supply chain. Other benefits of energy efficiency investments by EDBs can include: avoiding transmission network augmentation costs and avoiding generation operational and capital expenditure. If EDBs are unable to capture these wider benefits, it is likely that a sub-optimal level of investment in energy efficiency and DSM will be undertaken.

97. The ENA EEI Working Group's net market benefit test (NMB) attempts to capture these costs when considering the merits of energy efficiency and DSM proposals. This includes scenarios where energy efficiency and DSM in themselves may not be as efficient for the EDB as continuing network augmentation but does result in a NMB when considered with the avoided costs that are achieved across all levels of the supply chain.

98. Where energy efficiency and DSM investments by EDBs deliver NMBs to transmission and/or generation, Vector believes some of these savings should be returned to the EDBs. This would be appropriate reward for delivering efficiency to the whole supply chain and could be achieved by way of a recoverable cost that captures a portion of the estimated value of the upstream (i.e. transmission and generation) benefits the investment can deliver.

99. Vector recognises that EDBs would need to be able to demonstrate to the Commission's satisfaction that such upstream cost savings exist. We do not believe it is necessary to be prescriptive at this stage as to how those benefits should be calculated or shared between consumers and EDBs. This could be determined between the Commission and the applicant EDB on a case-by-case basis.

100. However, in our view it is important for the Commission to accept and allow for the principle that such a recoverable cost is appropriate and thus provide improved incentives for investment in energy efficiency and DSM.

Energy efficient and DSM investment as part of Electricity Lines Services

101. Some parties have suggested that it can be unclear whether some energy efficiency expenditure fits within the Part 4 definition of Electricity Lines Services. Whether or not energy efficiency capital investment meets the definition determines whether it can be included in the EDB's RAB.

102. If the Commission does choose to further define energy efficiency and DSM, Vector **recommends** the Commission follows the approach taken in overseas jurisdictions where energy efficiency and demand management have been defined broadly to ensure EDBs are able to take advantage of all opportunities to reduce peak load on their networks. The Queensland Electricity Regulations use the following definition for demand management:

> *Demand management by a distribution entity means any activity in which the entity is involved in that reduces demand on the entity's network or part of the network.*[20]

103. The use of a broad definition would help further incentivise innovative alternative investment solutions and also eliminates the risk of unnecessarily confining investment opportunities given the rate of innovation in energy efficiency and DSM both locally and internationally. At the same it also ensures the breadth of activity does not incrementally extend to activities that have no connection with energy efficiency on the EDB's network.

104. The PowerCo submission identifies a number of energy efficient assets that EDBs could invest in to reduce 'peak demand'. However, Vector does not believe that the development of a defined list of investments is the best way to provide clarity on what is and is not considered to be an ELS investment. The nature of technology and investment opportunities over time will change, creating the risk that such a list would rapidly become out of date, stifling innovation.

[20] Section 127A Queensland Electricity Regulations 2006

Catastrophic events and change events

105. Vector mostly agrees with the position the Commission has reached on reopening the DPP following a catastrophic event. In particular, we agree that after a catastrophic event EDBs should:

a) be compensated for prudent additional costs incurred before the DPP is reset;
b) be compensated for prudent additional costs forecast to be incurred after the DPP is reset; and
c) be cushioned against changes in future demand by factoring in up-to-date forecasts when the DPP is reset.

106. We agree that a recoverable cost term is an appropriate way to provide for recovery of prudent additional costs incurred between the date of the catastrophic event and the date of the DPP reset.

107. However, Vector remains of the view that the claw-back should apply to revenue losses incurred between the catastrophic event and the reopener. We believe the reopener should apply to all of the risks faced by suppliers following an event, not just the expenditure risks. Our reasons for this view were set out in our submission on the Orion CPP draft decisions paper and remain unchanged.[21] Vector **recommends** the DPP re-openers allow for recovery of lost revenue between the catastrophic event and the date of the reopener.

108. Also, Vector does not believe there is a need to treat catastrophic events differently from other types of reopener event. The merits appeal judgment of the High Court found that the regulatory process and rules input methodologies would be materially better if a DPP could be reconsidered where either a catastrophic event or a change event occurred.

109. We see no principled reason why additional costs incurred between the date of the event and the date the DPP is re-determined should be treated differently depending on the nature of the event. Also, a change event is more likely than a catastrophic event to affect all EDBs at once – so providing for cost recovery from the date of a change event would reduce the risk that many or all EDBs will concurrently apply for a CPP.

110. Vector **recommends** the Commission's draft decision on reopening the DPP following a catastrophic event is extended to apply to all DPP reopeners.

[21] Vector Limited, *Submission to the Commerce Commission on Orion CPP Draft Decision*, 20 September 2013, paragraphs 55-61.

Treatment of assets purchased from Transpower

111. The Commission is proposing refinements to the way capex and opex are forecast and the way quality standards are set for EDBs that purchase assets of significant value from Transpower.

112. Vector supports supports the recoverable cost incentive for asset transfers from Transpower which allow avoided transmission charges to be recovered through prices for a period of five years. Vector is comfortable with the proposal for the avoided cost of transmission to be calculated by Transpower running a "counterfactual" scenario, provided EDBs can discover the results of this analysis before the asset purchase takes place.

113. Vector agrees that purchases prior to the next regulatory period should be fully reflected in forecast costs when setting the price path.

114. The Commission proposes that where EDBs purchase assets from Transpower, their quality standards will be adjusted for the expected impact of assets purchased from Transpower on the EDB's quality performance. In principle, we agree this is appropriate. However, it is not clear that the available data would necessarily be comparable. If it is not feasible to reliably adjust an EDB's quality standard in the way the Commission proposes, Vector agrees that a pragmatic alternative would be to exclude the performance of the purchased asset from the EDB's quality performance assessment until the next reset.

Alternative rate of change to minimise price shocks

115. The Commission proposes to apply an alternative rate of change when the increase in prices would otherwise exceed 5% in real terms. This is a change from the previous DPP decision where the threshold was 10%. In Vector's view, 5% is too low and may unduly delay recovery of the price increase. Given that distribution charges only make up approximately one third of an end-consumer's bill, we do not consider 10% to be an unreasonable threshold.

Additional allowances

116. In Attachment H of the 2012 DPP Decisions Paper, the Commission calculated a margin of error between its forecast revenue requirements and the

supplier’s forecast revenue requirements. The Commission considers that suppliers that have high margins of error would not be influenced by the introduction of forecast error allowances, and would likely apply for a CPP. Forecast error allowances would therefore only make sense for suppliers that have low margins of error to reduce the likelihood that the supplier will make a CPP application. The Commission proposes to apply the same approach in the 2015 price reset decision.

117. The main limitation of the Commission’s approach is that the calculation of the cost to the consumer is incomplete. The Commission assumes suppliers have only two choices when faced with a lower than desired DPP: stick with the DPP or apply for a CPP. Attachment H therefore assumes that the only cost to consumers of the Commission setting the DPP too low is the cost of any CPP applications.

118. In fact, suppliers have other options in response to a DPP that is too low. Suppliers could inefficiently defer opex and capex to the next regulatory period. Suppliers could also accept lower returns for the regulatory period and earn less than the true WACC. A supplier would choose this option if it perceived a risk that the CPP would provide lower returns than the DPP.

119. We see at least three valid reasons why a supplier that does not expect to earn its cost of capital under the DPP might not apply for a CPP:

a) **Uncertainty of CPP outcome.** The Commission has previously dismissed this risk as a concern because “all the rules, requirements and processes have been set out up-front; there is a form of ‘merit’ appeal against a customised price-quality path determination; and all supplier-specific information can be taken into account”. The experience with the Orion CPP process has demonstrated that outcomes can be quite different from what the supplier making the application expects.

b) **Change in WACC parameters.** Suppliers will generally know in advance of making a CPP application how the parameters have changed from the DPP that would otherwise apply. If WACC parameters decline after the DPP is set, then the likelihood of a CPP application is much lower (and vice versa).

c) **Management priorities/resourcing.** Even if the CPP outcome was known and WACC had not changed, it might still be rational for a supplier to not want to apply for a CPP. This would reflect the relative value of using its resources (management and staff time, consultant budgets) to get a CPP compared with using its resources in another way.

120. The main weakness of Attachment H in our view is that it fails to recognise that if the DPP forecasts are too low, then suppliers may choose not to apply for a CPP and instead defer efficient expenditure. Recent work by the Commission and stakeholders in relation to the WACC percentile has sought to calculate the likelihood and cost of deferred expenditure to consumers. Vector **recommends** the Commission assess that information to calculate the likely impact on consumers of inefficiently deferred expenditure and adjusts the additional allowances calculation accordingly.

Capex and opex efficiency incentives

121. Vector will comment on the efficiency incentives in our submission on the DPP companion papers due on 29 August.