Submission to the Commerce Commission on Revised Draft Reset of the 2010-15 Default Price-Quality Paths for Electricity Distribution Businesses

1 October 2012

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EXECUTIVE SUMMARY

1. Vector's submission on the Revised Draft Reset for Electricity Distribution Businesses' (EDBs) Default Price-Quality Path (DPP) 2010-15 (Revised Draft Reset) is made without prejudice to the merit-based appeals and judicial review Vector is taking in relation to Part 4 of the Commerce Act (the Act).

Timing of reset

2. The Commerce Commission (the Commission) has stated that "We expect to reach a final decision on these matters by 30 November 2012; price changes may therefore take effect from 1 April 2013" (emphasis added).[1] The Commission's statements allow for the possibility that it may fail to meet its intended 1 April 2013 mid-period reset.

3. While Vector is cognisant of the amount of work required to ensure a robust Starting Price Adjustment (SPA) Methodology is applied to the mid-period reset and future resets, it would be highly undesirable for the Commission to fail to meet these deadlines, if it is going to undertake a mid-period reset.

Assessment of current and projected profitability

4. Vector considers that there is a substantial likelihood the Revised Draft Reset over-estimates current and projected profitability. This means that the P_0 adjustments will either too high (if the regulated supplier is forecast to earn more than the Commission's estimated industry-wide WACC) or too low (if the regulated supplier is forecast to earn less than the WACC). Vector considers that there is a multitude of issues that count against regulated suppliers expecting to earn a normal return, including but not limited to, flaws in the Commission's cost and revenue forecasts, such as exclusion of customer density from forecasts of operating expenditure (opex) growth.

5. The primary focus of Vector's submission is consequently on how the Commission could improve its forecasting and modelling of current and projected profitability. Specific changes to the way the Commission calculates current and projected profitability Vector recommends include, but are not limited to:

   a. ***Capex forecasts:*** Adopt 2012 (or at least 2011) AMP capital expenditure (capex) forecasts rather than 2010 AMP forecasts. More up-to-date forecasts will be more accurate because forecasting is more reliable the closer it is completed to starting any capital works project.

   b. Adopt 2009/10 commissioned asset data from the s 53ZD notices, rather than using Information Disclosure.

   c. Add 2011 non-network capex for forecasting of non-network capex.

   d. ***Opex forecasts:*** Use density as an explanatory variable for network opex as well as ICPs, and remove the distinction between network and non-network opex for forecasting opex growth. This should result in more reliable econometric forecasts, as: (i) network density is a driver of opex for urban networks; (ii) the data set used to determine the relationships between variables will be larger; (iii) inconsistent allocations between network and non-network opex would not matter; and (iv) it will address the anomaly whereby the Commission adopts different growth rates for network and non-network opex, but assumes the ratio between network and non-network opex is fixed.

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[1] Paragraph X.2, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

e. Remove the opex partial productivity component from the opex cost calculation, in order to avoid duplication with the role of the X factor.

f. ***Base Year:*** Use 2010 as the Base Year, but for future resets consider adopting a broader (two or more) Base Year, that is determined up front (in advance of the Base Year).

g. ***TCSD Allowance:*** Apply a Term Credit Spread Differential Allowance (TSCDA) for Vector of $706,000 rather than $480,000. Vector's own analysis of the TCSDA has determined that the value should be approximately $706,000.

h. ***Consequential IM Amendments:*** Amend the asset valuation Input Methodology (IM) to ensure depreciation is treated consistently with the mid-year timing assumptions in the SPA Model. This is the approach of overseas regulators.

i. ***Tax depreciation rate:*** Apply a tax depreciation rate to new assets in the years 2011-15 that is the rate derived by dividing 2010 tax depreciation by 2010 opening regulatory tax asset value, reduced by 20%.

j. ***Tax calculation:*** Include permanent and temporary differences in the SPA Model, with disclosed 2010 numbers applied to all years within the model.

k. ***CPI:*** Adjust the value of depreciation to reflect the effect of inflation as, in the presence of inflation, the Commission's SPA Model fails to depreciate assets over their useful life.

l. Use 2009 CPI forecasts for all items within the SPA model, rather than the current mix of 2009 and 2012 forecasts.

6. Addressing each of these points will result in a more accurate and reliable assessment of current and projected profitability.

Claw-back

7. Vector supports the Commission's decision not to apply claw-back at the mid-period reset from 2010 to 2012. In Vector's view, the principles underpinning that decision remain entirely sound. Vector acknowledges the Commission's current intention is to offset the effect of further delay in the mid-period reset, by applying claw-back for 1 April 2012-13, and that claw-back is less problematic where the decision to adopt it has been signalled in advance of the relevant period.

8. If the Commission adopts claw-back for 2012-13 it will need to give further consideration to the following matters to ensure regulated suppliers are not worse off than they would have been had the DPP been reset in November 2011 and applied from April 2012:

a. The Revised Draft Reset does not fully recognise that EDBs (including Vector) have not necessarily set their prices at the maximum allowed under the current DPP.

b. The Commission will need to determine a discount rate that is consistent with neutralising the impact of the delay to the reset process and allows a normal return from 1 April 2012.[2]

c. The Commission needs to determine the timeframe over which claw-back of over or under-recovery should be applied. Section 52D(2)

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[2] Paragraph 18, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

requires that "If the Commission requires a supplier to lower its prices, it must also require that the lowering of prices must be spread over time" (emphasis added). The Commission has given no indication that it would apply claw-back over more than a single regulatory year, except where price increases would be above 15%.

Regulatory error and asymmetric risk

9. In considering the robustness of the Commission's determination of starting prices, based on current and projected profitability, it should be recognised that:

    a. The results are highly sensitive to the approach and assumptions the Commission adopts;

    b. There is material risk of regulatory error (the Commission setting prices too high or too low); and

    c. CPP applications are not costless for regulated suppliers to undertake. There is considerable risk, for example, that the Commission could determine a CPP that would deliver a worse outcome for the regulated supplier than the DPP.

10. The Commission should consequently "have a preference against options which perhaps lead to short-term gains but which, by for example inhibiting investment in networks or services, ultimately reducing the wellbeing of end users".[3] The adverse consequences of prices that are too low can be expected to be worse for consumers if they have a detrimental impact on investment and maintenance, resulting in poorer service quality and reliability.

11. Vector believes that in order to meet the Part 4 purpose the Commission should add an allowance for asymmetric risk and regulatory error – that reflects the costs to consumers of potential under-investment which has a detrimental impact on service – in its calculation of current and projected profitability. As Vector has explained in previous submissions, the Commission's reasons for not including an error correction mechanism are without sound basis.

Incentives to improve efficiency

12. Vector has provided the Commission with numerous submissions and expert reports on the importance of including incentives to improve efficiency in a SPA Methodology. The Commission itself has previously acknowledged the importance of including incentives to improve efficiency in that methodology, as has its experts. Accordingly, Vector is disappointed that the Revised Draft Reset only briefly discusses these matters.

13. If the Commission is to successfully provide adequate incentives to innovate and improve efficiency between now and the end of the regulatory period the Commission needs to be clear about what sharing arrangements will be adopted across the start of the next regulatory period. The Commission has acknowledged this with its comment that to be effective incentive arrangements need to be known up front.

14. If the Commission does not directly provide incentives as part of this mid-period reset it remains imperative that these issues are addressed as a matter of urgency.

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[3] Page 61, Ministry of Business, Innovation and Employment and the Australian Department of Broadband, Communications and the Digital Economy, Trans-Tasman Roaming, Draft Report, August 2012.

INTRODUCTION

15. Vector is responding to the Commerce Commission's (the Commission) Revised Draft Reset of the 2010-15 Default Price-Quality Paths (the Revised Draft Reset), dated 21 August 2012. Vector's submission and the accompanying consultancy reports are public, with the exception of Vector's spreadsheet calculation of Term Credit Spread Difference Allowance which should be treated as confidential.

16. If the Commission has any queries regarding Vector's submission, or would like further information, please contact:

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Consultancy Reports

17. Please find attached the following consultancy reports prepared for the Revised Draft Reset:

Consultant	Report
Castalia	*Review of Revised Draft Reset of the 2010-15 Default Price-quality Paths*, September 2012
	Evidence on the Impacts of Regulatory Incentives to Improve Efficiency, Report to Vector, April 2012.*
Competition Economists Group (CEG)	*Default price quality path reset*, October 2012.
	Empirical studies on the impacts of economic regulation, Report to Vector, July 2012*
	Application of claw-back, Report to Vector, June 2012*

* Submitted to the Commerce Commission on 5 July 2012.[4]

Submission made without prejudice to current litigation

18. This submission is made without prejudice to the merit review and question of law appeals currently being heard in the High Court and the judicial review appeal set down to be heard in the Supreme Court on 9 and 10 October 2012.

Commission discretion to determine an SPA IM

19. This submission is also made without prejudice to Vector's position that the Commission can, and should, determine its SPA Methodology as an Input Methodology (IM), notwithstanding the recent Court of Appeal decision.[5] Vector also refers to the Electricity Network Association's (ENA) letter to the Commission dated 21 September 2012.[6]. As set out in Vector's submission on the additional DPP IMs dated 6 July 2012, the implications of not including this IM are significant in terms of undermining the objectives of

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[4] Letter from Allan Carvel to John Hamill, Re: Starting price adjustments for electricity distribution and gas pipeline services, 5 July 2012, available at: http://www.comcom.govt.nz/2010-2015-default-price-quality-path/

[5] *Commerce Commission v Vector* [2012] NZCA 220, [2012] 2 NZLR 525.

[6] Letter from Alan Jenkins (Chief Executive, ENA) to Mark Berry (Chair, Commerce Commission), Clarification of SPA Method, 21 September 2012.

the Part 4 reforms, including improved transparency, confidence and predictability.

OPENING COMMENTS

20. Vector has previously provided detailed submissions setting out why, in its view, the effective operation of the DPP/CPP regime requires that the Commission's SPA Methodology include mechanisms to address regulatory error and asymmetric risk, and provide for incentives to improve efficiency. For the purposes of this submission, Vector does not intend to repeat in full all submissions previously made on these issues. Rather, in this submission Vector:

    a. focuses on how the Commission could improve the robustness and accuracy of its forecasts and modelling of current and projected profitability (this is also the focus of the Castalia and CEG consultancy reports);

    b. addresses key issues relevant to the proposed application of claw-back;

    c. reiterates the importance of including an error correction mechanism and why the Commission's reasons for not including such a mechanism are not sound; and

    d. emphasises the importance of fully addressing incentives to improve efficiency before the 2015 reset.

Ongoing engagement on SPA Modelling and forecasting

21. The Commission’s focus since the previous Draft Decision (released in July 2011) has been on determination of current and projected profitability, including how to forecast costs and revenues.

22. Reflecting the Commission’s apparent priorities and time constraints, the primary focus of Vector’s submission, and the Castalia and CEG September reports, is on how the Commission could reduce the risk of errors in forecasting and modelling current and projected profitability.

23. Vector would also welcome the opportunity to work with the Commission to establish better forecasting in the future.

Addressing efficiency incentives

24. Vector has previously provided numerous submissions and expert reports on the importance of including incentives to improve efficiency in a starting price methodology and is disappointed that these issues have been addressed with relative brevity by the Commission.

25. These issues remain critical for the purposes of future resets. If the Commission is to successfully provide adequate incentives to innovate and improve efficiency between now and the end of the regulatory period the Commission needs to be clear about what sharing arrangements will be across the start of the next regulatory period.

26. The urgency with which this issue needs to be addressed is part of the reason Vector provided the Commission with its consultants’ reports on efficiency prior to this consultation.

27. The Commission has acknowledged the importance of decisions on efficiency incentives with its comment that “incentive mechanisms only provide benefits to consumers when they have been signalled to suppliers up

front".[7] As a first step, Vector considers that the Commission should urgently amend its DPP processes and rules IM to include an Incremental Rolling Incentive Scheme (IRIS). The Commission and its expert agree that an IRIS is desirable. Further, it should be possible to propose and consult on such an amendment within relatively short timeframes (as the Commission has already done in relation to specific amendments to the IMs).

28. Vector also urges the Commission to also include further consideration of mechanisms such as the Staggered Sharing Mechanism. Specifically, Vector **recommends** that the Commission ensure it gives full and proper consideration of options to enhance incentives to improve efficiency and maximise the efficiency gains available to be shared (ss 52A(1)(b) and (c)), including but not limited to:

    a. a Staggered Sharing Mechanism;

    b. an IRIS;

    c. an s-factor to link revenue to service quality; and

    d. specific s 54Q mechanisms.

Mid-period reset timing

29. The Commission has stated that "We expect to reach a final decision on these matters by 30 November 2012; price changes may therefore take effect from 1 April 2013" (emphasis added).[8] The Commission's statements allows for the possibility that it may fail to meet its intended 1 April 2013 mid-period reset.

30. It is important that, if the Commission is to impose a price reset for the 2013/14 regulatory year, it makes a final decision by 30 November. This is needed to ensure Vector and other EDBs can meet their contractual obligations with retailers and adopt the P_0 adjustment at 1 April 2013.

31. If the Commission is unable to meet 30 November for its final decision, it will need to determine how it should best manage the delay without creating future contractual problems for Vector and other EDBs.[9]

32. If the Commission undertakes a price reset but is unable to meet 30 November for final decisions, then Vector **recommends** that it consider delaying the reset to 1 April 2014 and applying claw-back between 1 April 2013 and 2014. However, whether this option would be acceptable to Vector would depend on the discount rate the Commission adopted (as discussed later).

[7] Paragraph 156, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[8] Paragraph X.2, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[9] The Auckland Network use-of-system agreement (UOSA) states that (clause 12.2) "the Lines Company will not change the rate applicable to a pricing option more than once in any one year period". Hence, a delay in price setting for 2013 may have a domino effect for subsequent price changes.

MODELLING ISSUES

33. Vector has considered the Commission's SPA Methodology and supporting Models in some detail.

34. It is not possible to fully confirm whether the Model does what is intended as substantial aspects of the SPA Methodology would have to be inferred from the Model. In addition, the Model and underlying SPA Methodology are unduly complex and the presentation is opaque.[10] The Commission itself, when asked to explain the differences between this model and the previous model, declined on the basis that it was too difficult.

35. Vector **recommends** the Commission consider how to simplify the SPA Model and improve its transparency.

36. Vector also notes that the Commission's proposed SPA Model is a substantial change from the previous model. It is unclear why such a wholesale revision was required. However, for clarity, Vector **recommends** all changes made to convert the previous SPA Model to the new Model are documented clearly (this would be consistent with good standard modelling practice) with reconciliation provided between the two models. As the Commission developed both models we do not accept the Commission's argument that it is too hard to reconcile them.

37. Failing to reconcile changes in modelling approach increases the risks that the Model contains unintended impacts on P_0 adjustments simply due to changes that no one is actually aware of.

38. Further, Vector notes that the Commission states that it "reviewed and cleaned the data" relating to operational expenditure "to the best of our ability".[11] The Commission has not explained what the review consisted of or what it means by "cleaned" the data. Vector **recommends** that the Commission issue a note specifying the steps it took to review and clean the data used in the SPA Model.

Ensuring accurate understanding of the size of P_0 adjustments

39. As the Commission will be aware, the percentage P_0 stated in the Revised Draft Reset will be indicative only and may differ from the actual price change depending on the modelling assumptions that are made by the Commission. While some of the differences may not alter the 2014 maximum allowable revenue, it is the P_0 that receives the most attention within the decision and tends to drive the market reaction.

40. At the customer level, the P_0 adjustment will not necessarily be the same as the adjustment to customers' prices, as this depends on matters such as EDB tariff rebalancing and the extent to which retailers actually pass through price reductions. (Mercury Energy, for example, has approximately 80,000 residential customers on three-year fixed price contracts, who would not receive any price decreases until after contract expiry.)

41. Vector **recommends** the Commission is clear in its final decision and in any media statements or briefing to market analysts that its proposed P_0s are indicative only and the actual percentage price adjustment may be different.

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[10] For example, in order to understand the formula within row 193 of the Vct tab of the Price Reset Model we have had to obtain advice from a university finance professor. To assess the econometric modelling we have had to obtain advice and analysis from statistical and economic experts. We do not believe that the costs to suppliers in understanding these SPA Models is consistent with the purpose of default/customised price-quality regulation.

[11] Paragraph D9, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

Treatment of "other regulated income"

42. Vector notes that the other regulated income reported in Chart A.3 for Vector is considerably higher than for other regulated suppliers. Notwithstanding Vector's size, relative to a number of the other regulated suppliers, this disparity indicates a difference in interpretation of the definition of other regulated income. Other regulated income is not defined for Part 2 (information disclosure) of the IMs and is defined as follows for Part 4 (DPP):[12]

> **other regulated income**, for the purpose of- Part 4, means forecast income associated with the supply of **electricity distribution services** other than-
>
> (i) through **prices**;
>
> (ii) investment-related income;
>
> (iii) **capital contributions**; or
>
> (iv) **vested assets**,
>
> as determined by the **Commission**

43. It is unclear how the Commission has "determined" other regulated income, in accordance with this definition, for the purposes of its s53ZD information requests and its DPP model. In the absence of a DPP determination, it is also unclear how items that are recovered transparently from retailers, such as loss rentals rebates and ancillary service charges, are to be treated.

44. Similarly, we wish to further explore with the Commission other elements of other regulated income to ensure these meet an appropriate definition.

Capex forecasts based on 2010 AMP

45. The Commission proposes to base capital expenditure forecasts on the 2010 Asset Management Plans (AMPs) on two main grounds: (a) that this forecast was developed prior to suppliers being aware the Commission would use an AMP forecast for price setting purposes; and (b) that the use of a later forecast would penalise efficiency gains by suppliers and reward inefficiencies.

46. In relation to (a) above, Vector notes that the AMPs disclosed under the Electricity Distribution (Information Disclosure) Requirements 2008 were required to be accompanied by a statement signed by two directors in the form specified in Schedule 14 of the Requirements. The wording of this schedule is very similar to the wording in the required directors' statements on the recent s 53ZD notices which have provided data the Commission has used (to an extent) in its SPA Model. In any event, the first time the Commission indicated it would use AMP forecasts was in the consultation document *2010-15 Default Price-Quality Path and Starting Price Adjustments and Other Amendments Update Paper*, dated 21 April 2011. EDBs' 2011 AMPs were published by 31 March 2011. Therefore, use of the 2011 AMP would also address the Commission's concern summarised in (a) above.

47. With regard to the Commission's point summarised in (b) above, Vector submits that more accurate forecasting in AMPs is likely to have a greater impact on capex forecasts than efficiency gains. All things being equal, a 2012 AMP is likely to be more accurate than a 2011 AMP at forecasting

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[12] Other regulated income is defined for Part 5 (CPP) in 5.3.7(2) which is similar to the definition for Part 4 above, but excludes the words "as determined by the Commission".

expenditure over the 2013-15 period and the 2011 AMP is likely to be more accurate than the 2010 AMP.

48. Consistent with this, the ENA suggest that the opposite of the concerns the Commission has is likely to be the case, with capital expenditure (capex) forecasts in the 2010 AMP likely to understate rather than overstate actual capex:[13]

> They reflect detailed forecast work plans for the first year of the planning period, with reduced planning detail in years 2-5, and even less planning detail in years 6-10. This expectation is set out in the Electricity Distribution (Information Disclosure) Requirements 2008 which specify the requirements for AMPs ... This means that future capex projects may not be fully captured in the out years, because the need for them and the costs for potential projects have not been identified.

49. This will be exacerbated by the Commission's proposed use of out-of-date (2010) AMP data.

50. Vector therefore considers that the benefits of increased accuracy outweigh the risks associated with using the 2012 AMP capex forecasts. Vector **recommends** that the Commission use the 2012 AMP forecasts to forecast commissioned asset expenditure over the regulatory period.

51. If the Commission does not accept this recommendation, Vector **recommends** that the Commission use the 2011 AMP forecasts to forecast commissioned asset expenditure over the regulatory period. This removes the concern that EDBs may have adjusted the forecasts based on expectations of the Commission using the forecasts for price setting, while still providing a better forecast than the 2010 AMPs.

2009/10 Commissioned Asset Data

52. The 2009/10 commissioned asset value in the Price Reset Model for Vector (which we understand applies for all other regulated suppliers) is a number taken from Information Disclosure rather than the s 53ZD notices. Vector understands from statements made at the workshop on the SPA Model held on 5 September 2012 that this was an error. Vector **recommends** the 2009/10 commissioned asset value number is taken from the s 53ZD notices.

Non-network capex

53. The Commission proposes to forecast non-network capex based on the historical average of non-network capex by each EDB over the 2008-10 years. For Vector, only the 2009 and 2010 years are used due to the effect of the Wellington network sale. The Commission states that the 2008-10 years are those for which consistent data is available.[14] However, the 2011 year was also disclosed under the Electricity (Information Disclosure) Requirements 2008.

54. It is striking that Vector, the largest EDB, has only the third highest non-network capex in the Commission's forecasts. Vector submits that common sense should indicate this cannot be a reliable outcome.

55. Vector **recommends** an average of the 2008-11 years is used for forecasting non-network capex. This would be likely to produce more robust outcomes in terms of forecasting non-network capex over the remaining regulatory period.

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[13] Paragraphs 55 - 56, Electricity Network Association, Submission on the Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 1 October 2012.

[14] Paragraph B18, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

Commissioned Asset Forecasts

56. The Commission's SPA Model assumes capex forecasts are equivalent to commissioned asset forecasts. While this may not be entirely accurate in all cases (as the 2010 AMPs were developed before the IMs were determined), Vector does not consider that the growth rate in capex forecasts over time is likely to be materially different from the growth rate in commissioned assets. In the context of a low-cost DPP, Vector considers this to be a reasonable assumption.

57. Linked to this point, the Commission has proposed to change its approach from the July 2011 Draft Decision, which inflated a Base-Year capex number on the basis of the growth rates implied by supplier AMPs, to an approach which directly enters the AMP forecasts (adjusted by CGPI) into the SPA Model. It is the Commission's change in approach that necessitates a reconciliation of capex and commissioned assets.

58. Vector **recommends** that the Commission adopt the approach proposed in its July 2011 Draft Decision of applying a growth rate to the Base Year number (which was disclosed under s 53ZD notices, consistent with the IMs), where the growth rate is derived from the change in the AMP capex forecasts over time.

59. If this recommendation is adopted, the Commission will not need to issue further s 53ZD notices to request information regarding the extent to which the 2010 AMP capex forecasts are consistent with the definition of commissioned asset.

Use of 2010 Base Year for opex

60. The Commission proposes to use 2010 operating expenditure (opex) as disclosed under s 53ZD notices as the Base Year opex number in the SPA Model. Vector supports this approach and agrees with the Commission that there is no reason to consider 2010 to be an unusual year in terms of opex. Further, 2010 is the only year in which the Commission has opex data for EDBs that is consistent with the IMs.

61. Vector **recommends** the Commission use 2010 as the Base Year for the mid-period reset, as proposed, but for future resets consider adopting a broader (two or more) Base Year, that is determined upfront (in advance of the Base Year)

Opex Partial Productivity Growth

62. Vector does not support the inclusion of an opex partial productivity growth factor in the opex formula as it duplicates the role of the X-factor. Expected productivity gains by EDBs will be reflected in the X-factor. To base starting prices on forecast costs that also assume productivity gains double counts those gains and removes the benefit of (and therefore the incentive for) those gains.

63. The Commission's decision appears to be based on decisions of the Victorian Essential Services Commission ("ESC") on Gas Access Arrangements 2008-2012 and Electricity Distribution Price Review 2006-2010. However, the Commission has overlooked the context of these ESC decisions.

64. Both ESC decisions included an X-factor. However, the X-factor in these decisions was not based on any productivity analysis. Instead it was used in the same way as a P_0 adjustment- as a mechanism for providing regulated

suppliers with permitted revenues over time. This was pointed outin Vector's previous submission.[15]

65. Vector **recommends** that the opex partial productivity component is removed from the opex cost calculation. Vector made a similar series of points in its previous submission and notes they have not been addressed by the Commission.[16]

Term Credit Spread Differential Allowance

66. The Term Credit Spread Differential Allowance (TCSDA) for Vector is approximately $480,000. The way this figure is derived is unclear. This is another example of overly complicated process that is not transparent and requires effort that is disproportionate to value.

67. Vector's own analysis of the TCSDA has determined that the value should be approximately $706,000. Vector attaches its calculations to this submission and is happy to discuss any queries the Commission may have on how this amount is derived.

68. Vector **recommends** the TCSDA for Vector is set to $706,000 as described in the attached spreadsheet.

Cash flow timing assumptions

69. As discussed in Vector's recent submission on cash flow timing for CPPs,[17] Vector's preference is for all items to be determined at year-end and an explicit allowance be provided for working capital.

70. Our second best preference is for all cash-flows to be treated as occurring at mid-year (with allowance for working capital to be provided). However, we note that the Commission's approach, which roughly approximates a mid-year approach, introduces a significant degree of complexity into the modelling but has a minimal impact (compared with a year-end timing assumption), reducing overall regulated supplier revenues by less than 0.5% per year

71. The Revised Draft Reset is, nonetheless, a significant improvement on the mixed-period discounting proposal in the July 2011 draft decision. As discussed in Vector's submission on cash-flow timing for CPPs, the 3 November revenue assumption provides an appropriate implicit allowance for working capital.[18]

72. However, the Commission's approach does not currently align fully with other aspects of the regulatory settings. In particular, both return on and return of capital are treated as year-end costs within the IMs and the DPP SPA Model.

73. At present, even though capex will occur throughout the year (with mid-year being a reasonable assumption for average timing), for the purposes of determining the depreciation of this investment, it is assumed that asset commissioning will occur at the end of the year. This will result in an understatement of regulated suppliers' costs. Depreciation on commissioned assets is clearly a legitimate and efficient cost incurred within a period, and should be able to be recovered within that period.

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[15] Vector Limited, Submission to Commerce Commission on Draft Decision on Starting Price Adjustments for Electricity Distribution Businesses, 24 August 2011, paragraphs 113-121.

[16] Ibid.

[17] Paragraph 7, Vector Limited, CPP cash-flow timings, 21 September 2012.

[18] Ibid.

74. It is insufficient to justify this anomaly by saying "that's what the IMs say", as Commission staff did at the briefing on the model on 5 September 2012. The Commission drafted the IMs at a time when it intended to apply those IMs to year-end revenues. It has now changed that approach, but has chosen not to change the IMs accordingly, even though it has the power to do so.

75. As Castalia note in their report, regulators overseas have recognised this issue. The Independent Pricing and Regulatory Tribunal of New South Wales (IPART) has depreciated commissioned assets at half the normal rate in the year of commissioning where they used a mid-year assumption for capital expenditure.

76. Vector **recommends** that, if cash flow timing for all items is not year-end, then:

    a. the Commission explicitly recognise that the 3 November revenue timing assumption is an allowance for working capital; and

    b. the Commission amend the asset valuation IM to ensure depreciation is treated consistently with the mid-year timing assumptions in the SPA model.

Non-indexed Historical Cost RAB

77. Vector **notes** the Commission has adopted an approach to intra-year cash flow timing assumptions that, together with the interaction of WACC and RAB IMs, negatively impact on the profile of cash businesses can expect to receive during the regulatory period and over the life of the asset. Any diminution of cash flow for a business has an effect on investment, simply from an availability of funds perspective, but also in terms of incentives to invest, etcetera.

78. In light of the negative outcomes in terms of cash flow resulting from the overall regulatory package for DPP, Vector would prefer to have options available to it that enable it to better manage its cash flow under the regulatory construct (be it DPP or CPP). A key example is the option of a non-indexed historical cost RAB approach. As was discussed with the Commission in workshops and conferences early in the process for developing this regime, cash flow is of paramount importance to businesses and options to weight cash flows to the near term as opposed to the long term may be of significant value to a business, without resulting on excessive returns over time.

Tax depreciation changes in 2010

79. In the May 2010 Budget the New Zealand Government removed the rule that permitted 20% depreciation loading on the depreciation rate applied to new assets acquired after 20 May 2010.[19] The Budget also set the tax depreciation rate on buildings to 0% from the start of the 2012 income year. The March 2010 tax depreciation number provided by EDBs related to a period before this change was made. However, the Commission's model applies the March 2010 tax depreciation number for each EDB to the years 2011–2015, without removing the 20% depreciation loading and the building depreciation effect. This will have the effect of over-stating tax depreciation in those years.

80. Vector **recommends** the tax depreciation rate applied to new assets in the years 2011–15 is the rate derived by dividing 2010 tax depreciation by

[19] http://www.beehive.govt.nz/release/fact-sheet-depreciation-loading

2010 opening regulatory tax asset value (both numbers provided by EDBs in their statutory notices), reduced by 20%.

Tax calculation: Permanent and temporary differences

81. The July 2011 DPP SPA Model did not include estimates for any permanent differences or temporary differences in respect of 2011 and subsequent years (rows 77, 86 and 87 of the EDB specific sheets in that model). In its previous submission Vector recommended that the 2010 numbers for permanent differences and temporary differences be applied to all subsequent years in the SPA Model.[20]

82. However, in the current model the Commission appears to have excluded permanent and temporary differences even in the base year. Vector can see no justification for excluding these items that are building blocks calculated in accordance with the IMs, particularly as the Commission included them in the previous model.

83. Vector **recommends** that permanent differences and temporary differences for tax calculation be included in the SPA Model, with the disclosed 2010 numbers being applied to all years within the model.

Calculation of depreciation

84. As discussed in previous submissions,[21] Vector submits that the Commission's SPA Model incorrectly provides for depreciation of assets as it fails to depreciate assets over their useful life.

85. In the presence of inflation the Commission's current model fails to depreciate assets over their useful life. The effect of the model is that the real value of initial investment to the EDB is never fully returned to the EDB. While the Commission's approach does increase the RAB by the full amount of inflation on the initial investment, this is only passed on in higher depreciation in subsequent years and only with a lag. Therefore the Commission's model artificially back-loads EDBs' return of capital. There does not seem to be any justification for this approach.

86. The Commission's model also departs from the IMs by setting nominal compensation for depreciation at less than the asset value divided by the asset's remaining life.

87. The Commission's argument that the result is NPV neutral over time is insufficient justification for its approach. It would equally be NPV neutral for the Commission to allow EDBs no revenue over a regulatory period by capitalising the foregone revenue into the closing RAB, but such an approach would not provide sufficient cash to operate the regulated businesses.

88. In order to correct this, Vector **recommends** the value of depreciation returned to the business is increased to reflect the effect of inflation.

Use of 2009 and 2012 CPI forecasts

89. Unlike the July 2011 Draft Decision, the Revised Draft Reset incorporates both 2009 and 2012 CPI forecasts. Vector agrees that the 2012 CPI forecast could be used to assess the potential impact of not making an SPA. However, the 2012 CPI series is also used in other areas of the model (such as to escalate other regulated income).

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[20] Vector Limited, Submission to Commerce Commission on Draft Decision on Starting Price Adjustments for Electricity Distribution Businesses, 24 August 2011, paragraphs 85-86.

[21] Ibid, paragraphs 77-81. CEG, Review of Draft Decisions Paper on Starting Price on 2010-15 Default Price-Quality Path for Electricity Distribution: A report for Vector, August 2011, section 2.

90. Vector **recommends** the Commission uses the 2009 CPI forecast for all items within the SPA Model. This would ensure greater consistency in the modelling approach that is in line with the Commission's intention to ensure "that the implied real return during the regulatory period is consistent with the inflation expectations that are embedded in our estimate of the cost of capital".[22]

Use of a wash-up mechanism

91. As discussed in its previous submission,[23] Vector considers that the allowable notional revenue formula introduces a risk that the revenue the Commission estimates an EDB requires will not be achieved. This is because the maximum allowable revenue deemed to be necessary will only be achieved if the Commission's forecasts of demand growth used to convert allowable revenue to allowable notional revenue are accurate.

92. If the Commission's forecasts are inaccurate then EDBs will in fact earn more or less than the Commission considers they need to earn in the 2013 regulatory year.

93. Vector **notes** it continues to support the introduction of a "wash-up" mechanism into the DPP to adjust EDB revenues in the 2015 regulatory year to compensate for under-recovery or correct any over-recovery in 2014. As it previously described, the wash-up mechanism could be introduced with minimal additional cost through the following two-step process:

    a. Update the inputs into the allowable notional revenue formula in equation 2 of Schedule 1C of the Draft DPP Determination with actual or revised forecast information (noting that one year of actual real revenue growth with be available) for growth and pass through costs at the fifth assessment date.

    b. Add the updated allowable notional revenue into the existing formula in Equation 3 of Schedule 1D of the Draft DPP Determination as part of the 'head-room' adjustment.

[22] Paragraph 83, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[23] Vector Limited, Submission to Commerce Commission on Draft Decision on Starting Price Adjustments for Electricity Distribution Businesses, 24 August 2011, paragraphs 134-139.

ECONOMETRIC APPROACH TO FORECASTING

94. For the Revised Draft Reset the Commission has chosen to forecast opex and constant price revenue growth by econometric techniques. This is a significant change from the previous approaches where opex was forecast based on real revenue growth and revenue growth forecasts were based on throughput forecasts developed by other regulators and the System Operator.

95. The reports prepared by Castalia[24] and CEG[25] both reviewed the econometric approaches the Commission has adopted.

96. Regression analysis is a powerful tool that can be used to empirically test proposed relationships in the data.

97. The accepted method for approaching regression analysis is to first define the form of relationships that would be expected in theory. This choice might be consistent with accepted economic theory or simply through *a priori* reasoning about what one might reasonably expect. Discovering the most relevant variables or functional forms through exhaustive empirical testing is a form of data mining and is likely to lead to spurious being estimated or non-causative relationships that are created by interactions with a third variable. .

98. Vector is concerned that the Commission's approach to econometric analysis has been to take the available data and look for statistically significant relationships that could explain opex and constant price revenue growth. Then once the data identifies a relationship with desirable statistical properties, the Commission appears to accept it without a detailed consideration of whether the relationship makes sense from a real-world perspective.

99. The Commission has stated that "modelling of operating expenditure and revenue relies on independent forecasts that are free of systematic bias, in either direction".[26] This statement appears to be an assertion. Vector **recommends** that the Commission provide evidence to substantiate its claim that "modelling of operating expenditure and revenue relies on independent forecasts that are free of systematic bias, in either direction" before making the final DPP decision. It is not clear from Table J.1 that the Commission's forecasts have a different degree of bias than the supplier specific forecasts.

100. Vector shares CEG's concerns about the potential wedge between cost and revenue forecasts (low forecast cost growth, but high forecast revenue growth) that the Commission's econometric forecasts creates. This could have an accumulative impact (overstatement) on the calculation of current and projected profitability. CEG notes that "... companies like Vector and Electricity Invercargill with low assumed line length growth (which does not feed into assumed revenue growth) relative to ICP and energy supplied growth (which do feed into assumed revenue growth) tend to get one side of the coin but not the other. That is, they are assumed to have high revenue growth (due to high forecast sales growth) but not the cost growth to go with this (due to costs only being forecast based on line length and these firms' low estimates of historical line length). This will result in

[24] Castalia, Review of Revised Draft Reset of the 2010-15 Default Price-quality Paths, September 2012.

[25] CEG, Default price quality path reset, October 2012.

[26] Paragraph 110.2, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

overstatement of current and projected profitability and inappropriately high (downward) P0 adjustments."[27]

Operating expenditure (customer density)

101. Vector **recommends** that the Commission adopt customer density as an additional explanatory variable for network opex.

102. This recommendation is supported by the analysis of Castalia and CEG.

103. Vector does not believe the Commission has made a persuasive case in favour of its preference to rely only upon line length as a driver of network opex.

104. Adopting line length as the sole driver of network opex may be appropriate for EDBs with rural networks, as growth in those networks tends to result in more electricity lines. However, this is not the case for urban areas, where the key driver of opex is network density i.e. number of ICPs/network length. In urban areas, in particular:

    a. Customer growth tends to occur within the same footprint by a process of subdividing properties and a trend towards higher density housing;

    b. The increase in the number of consumers' premises within an area will increase the number of assets (transformers, switchgear, etc) per km of line; and

    c. All assets require maintenance. More equipment per km of line means more equipment to maintain, and higher network opex.

105. As the ENA notes, "network growth in urban areas includes infill growth, not replicated in rural areas".[28]

106. Castalia has found "that the Commission's approach [of excluding network density] systematically under-forecasts opex for higher density urban networks" and "Networks experiencing increasing customer density in coming years due to continued urbanisation (Auckland and Wellington) will have higher opex growth than projected in the Commission's decision. In contrast, areas where customer density is expected to fall (like South Canterbury) will have lower opex growth."[29]

107. Castalia has also found that the introduction of a density variable increases the coefficient on the network length variable to 0.988 "making the coefficient more consistent with the Commission's expectation of constant returns to scale. The explanatory power of the model increases when density is included in the model, with the R^2 increasing from 0.81 to 0.88."[30]

108. These findings indicate that by including a density variable in its econometric model of network opex, the Commission would better reflect the actual cost drivers for urban networks, and improve the statistical properties of its model.

109. Vector's concerns about the opex forecasts are exacerbated by the fact that it has the highest assumed growth in electricity supplied and ICPs, by a substantial margin, but one of the lowest forecasts for growth in line

[27] Paragraph 74, CEG, Default price quality path reset, October 2012.

[28] Paragraph 52, Electricity Network Association, Submission on the Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 1 October 2012.

[29] Page i, Castalia, Review of Revised Draft Reset of the 2010-15 Default Price-quality Paths, September 2012.

[30] Page i, Castalia, Review of Revised Draft Reset of the 2010-15 Default Price-quality Paths, September 2012.

length.[31] This suggests a substantial risk Vector's opex will be understated (in both absolute and relative terms).

Operating expenditure (total versus unbundled opex)

110. Vector **recommends** that the Commission undertake econometric forecasts of total opex, rather than separate forecasts for network and non-network opex.

111. This recommendation is again supported by the analysis of Castalia and CEG.

112. The reasons for adopting forecasts of total opex, rather than separate network and non-network opex, include the following:

    a. The Commission's model is internally inconsistent as it applies the results of its models to estimate the growth of total opex whilst holding constant the split of network and non-network opex at 41%/59%. The results of the Commission's model indicate that network and non-network opex are growing at different rates and this split will not remain constant

    b. Castalia's assessment indicates "that both components of opex are driven by circuit length and customer density. Removing the distinction between network and non-network opex would allow the Commission to expand the dataset used to derive econometric relationships."[32]

    c. In order to separately analyse network and non-network opex, the Commission restricts its dataset to the last two years (2009/10 and 2010/11). In Vector's view, the value of modelling separate cost drivers for network and non-network opex is far outweighed by the cost of sacrificing available data on total controllable opex (particularly given Vector believes the same cost drivers should be used anyway).

    d. Forecasting total opex rather than network and non-network opex will eliminate the risks of errors due to EDBs interpreting what counts as network and non-network opex differently.

Constant price revenue growth

113. The Commission now proposes to forecast constant price revenue growth using econometrics. This departs from industry norms (as did the July 2011 approach) which are based on historical growth trends.

114. The Commission has not provided evidence that the new forecasts would produce better forecasts. For example, the Commission could use historic data to test how well its econometric method forecasts future (now known) constant price revenue growth.

115. The econometrics used by the Commission to forecast constant price revenue growth is not intuitive. The Commission is using revenue to proxy for demand, and should explicitly relate the econometric approach used to forecast industrial and commercial revenue to other demand forecasts to test for appropriateness.

116. The Commission's analysis assumes the relationship between GDP and industrial and commercial revenue is steady over time. However, a recent report by the Ministry of Business, Innovation and Employment (MBIE)

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[31] Paragraph 70, CEG, Default price quality path reset, October 2012.

[32] Page ii, Castalia, Review of Revised Draft Reset of the 2010-15 Default Price-quality Paths, September 2012.

suggests demand per dollar of GDP has fallen by around 1 percent per annum from 2000-2011.[33] This report also suggests the overall link between energy use (not just electricity) and GDP is more like 1:3 rather than 1:2.

117. Castalia's analysis identifies substantive issues with the Commission's econometric forecasts, including:

    a. They bear little relationship with historical growth. For example, "Electricity Ashburton is forecast to grow constant price revenue by more than 3.5% over the next three years, primarily due to high forecasts of regional GDB growth."[34]

    b. Real regional GDP numbers have unexplained volatility. "For example, the Otago region is reported to have experienced an 18.1 percent decline in real GDP in 2012" while "the Canterbury region is reported to have experienced a 7.6 percent increase in real GDP".[35] These results would seem implausible.

    c. The regional GDP results are non-transparent because they are derived from NZIER proprietary information.

    d. The Commission has excluded "outliers" "because influential data points do not fit with the Commission's predicted views on relationships between GDP and demand. This does not make an observation an outlier. Econometric theory is clear that outliers should only be excluded if a plausible explanation of hypothesis is provided on why the data points identified are different ..."[36]

118. Vector also agrees with the ENA that "it would be good practice to test whether or not the model generates forecasts which have reasonably predicated reality. If they have not ... alternative models should be considered".[37]

119. Vector **recommends** the Commission:

    a. Undertake an analysis of why the regional GDP growth data appears to produce a number of anomalous results; and

    b. Consider whether forecasts based on national (historic) GDP growth would be more reliable.

[33] http://www.med.govt.nz/sectors-industries/energy/pdf-docs-library/energy-data-and-modelling/publications/changes-in-energy-use/changes-in-energy-use.pdf

[34] Page 10, Castalia, Review of Revised Draft Reset of the 2010-15 Default Price-quality Paths, September 2012.

[35] Page 11, Castalia, Review of Revised Draft Reset of the 2010-15 Default Price-quality Paths, September 2012.

[36] Page 12-13, Castalia, Review of Revised Draft Reset of the 2010-15 Default Price-quality Paths, September 2012.

[37] Paragraph 15, Electricity Networks Association, Submission on the Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 1 October 2012.

PRICE RESET UNDER S 53P(3)(B) AND CLAWBACK

120. For the avoidance of doubt, Vector **agrees** with the Commission that it should not apply claw-back for any alleged over-recovery for the period 1 April 2010–12.[38]

121. Vector believes the reasons the Commission has provided for why it should not adopt claw-back for 1 April 2010–12 remain valid; including but not limited to:

   a. The Commission should be "mindful of the need for certainty when considering investments …";[39]

   b. EDBs would "... not be forecast to earn a normal return over the final years of the period ...";[40]

   c. Claw-back can "detrimentally affect [investment] incentives going forward" "unless clear regulatory rules are specified upfront as to how any *future* over-recovery or shortfall might be dealt with" and would be "unlikely to be consistent with long-term benefits to consumers";[41] and

   d. "Recovering past shortfalls from consumers … will likely have some influence on future decision-making, particularly if the amounts involved are a significant proportion of existing revenue". [42]

122. Vector's views on claw-back have been documented in previous submissions. Vector would emphasise its concern that "Claw-back, in the case of perceived over-recovery of revenues is likely to lead to under-investment for the remaining years of the regulatory period as that supplier will now be making a sub-WACC return over those years ..."[43]

123. Adopting claw-back of alleged "excessive profits" is particularly unsafe where the Commission has not:

   a. distinguished between excessive and supranormal profits. The position implicit in the Commission's current approach is that any returns above its estimate of industry-WACC should be clawed-back – which appears to equate excessive profits and supernormal profits;

   b. introduced allowances for regulatory error, given there are questions about the robustness of the Commission's IMs;

   c. introduced efficiency mechanisms such as an IRIS and/or a Staggered Sharing Mechanism, as claw-back could undermine already weak incentives; and

   d. determined that claw-back would be adopted in advance of the period it would apply to.

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[38] Paragraph 141, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[39] Footnote 115, Commerce Commission, Initial Reset of the Default Price-Quality Path for Electricity Distribution Businesses: Decision Paper, 30 November 2009.

[40] Paragraph 4.11, Commerce Commission, Update Paper: Starting Price Adjustments & Other Amendments, April 2011.

[41] Paragraph 7.10, Commerce Commission, Update Paper: Starting Price Adjustments & Other Amendments, April 2011.

[42] Paragraph 7.10, Commerce Commission, Update Paper: Starting Price Adjustments & Other Amendments, April 2011.

[43] Paragraph 9a, Cross-submission on Additional Input Methodologies Process and Issues Paper, 10 February 2012.

124. Only one EDB objected to the Commission's position that claw-back should not apply for 2010-12. Notably, no other EDB objected despite the fact the majority of EDBs would benefit financially from claw-back; some substantially with up to a 50% uplift in allowable revenues.[44]

125. Nothing the Commission has stated about claw-back since, including its rationale for claw-back in 2012-13, provides any grounds for revisiting its decision not to apply claw-back for 2010-12.

Application of claw-back for 2012/13

126. Vector **notes** its previous recommendation that the Commission consider the impact of claw-back and mid-period price resets would have on incentives to improve efficiency in the context of decisions on whether to adopt a Staggered Sharing Mechanism and IRIS.

127. Vector acknowledges that claw-back is less problematic where the decision to adopt it has been signalled in advance of the applicable period. Vector assumes the Commission considers that the delay qualifies as "exceptional circumstances".

128. The fact that the Commission signalled it would consider applying claw-back for 2012-13 in advance of 1 April means EDBs have been aware that they should not assume the prices that apply during that period would stand, and they have been able to adjust budgets, capex etc accordingly.

129. However, Vector reiterates that the Commission should consider whether to introduce claw-back in the context of the already small incentives it is creating to improve efficiency. Claw-back will only serve to lessen these incentives.[45] This is of particular concern where the Commission has not included any mechanism for addressing regulatory error.

130. Vector also cautions that application of claw-back (to remove alleged returns in excess of the Commission's determined WACC) would heighten the risk that the prices set by the Commission are inadequate for regulated suppliers to earn normal returns.

131. Claw-back for 2012-13 would mean EDBs that have allegedly over-recovered revenue would expect to earn below normal returns after the mid-period reset (2013-15).

Form of claw-back to be adopted

132. If claw-back is adopted for 2012-13 the Commission will need to make decisions on a number of matters, including:

    a. Treatment of actual versus allowed revenue for 2012-13;

    b. The discount rate to be used;

    c. Timing of the claw-back/whether to use actual or forecast electricity volumes; and

    d. The period of time (number of regulatory years) over which the claw-back occurs.

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[44] The July 2011 Draft Decision included the following upward adjustments: Alpine Energy (12%), Aurora Energy (5%), Centralines (50%), Eastland (2%), Electricity Ashburton (44%), Electricity Invercargill (1%), Network Tasman (46%), The Lines Company (16%), Top Energy (33%), Unison (9%).

[45] Paragraph 92, Vector, Submission to the Commerce Commission on Initial DPP for GPBs Draft Reasons Paper, 19 December 2011.

133. In particular, the Commission should seek to ensure suppliers are not worse off than they would have been had the price reset been effective from April 2012.

Treatment of actual versus allowed revenue

134. Vector has serious concerns with the Commission's proposed claw-back formula as it penalises EDBs that have not priced up to the level of the cap, regardless of the reasons for not pricing up to the cap.

135. The claw-back formula defines the revenue for 2012-13, *ω,* as:[46]

> ... the maximum of:
>
> (a) Line charge revenue as disclosed under information disclosure fro 2012/13 *less* actual pass-through costs and actual recoverable costs for 2012/13; or
>
> (b) Permitted revenue for 2012/13 *less* actual pass-through costs and actual recoverable costs for 2012/13.

136. Sub-bullet (b) of *ω* means that claw-back could be of amounts in excess of any over-recovery (or of amounts less than any under-recovery).

137. The Commission's proposed approach needs to be considered against s 52(D)(1) of the Act:

> A reference to the Commission applying claw-back is a reference to the Commission doing either of the following:
>
> (a) requiring a supplier to lower its prices on a temporary basis in order to compensate consumers for some or all of any over-recovery that occurred under the prices previously charged by the supplier:
>
> (b) allowing a supplier to recover some or all of any shortfall in its revenues that occurred under the prices previously charged by the supplier. [emphasis added]

138. The approach to under-recovery is permissible because the Commission has discretion whether to apply claw-back "some or all of any shortfall". This is reflected in the Commission's explanation that "We use the maximum of these two revenue values because we do not consider it appropriate for the claw-back amount to include any under-recovery of revenue that a supplier was permitted to earn in 2012/13" (emphasis added).[47]

139. The Commission makes no comment in relation to over-recovery.

140. The Commission's proposed approach to claw-back for over-recovery would return revenue to consumers that was not taken from them in the first place. Such an approach makes no sense as it penalises EDBs that priced under the price path.

141. Vector believes that this approach would violate s 52(D)(1) of the Act. It is also inconsistent with the Commission's rationale for applying claw-back i.e. to neutralise the impact of delay in the reset.[48]

142. The words "some or all" clearly indicate that the Commission is entitled to claw-back up to 100% of the over- or under-recovered amount but is not permitted to claw-back more than 100% of the amount. Vector considers that the drafting intent is clear and the Commission's proposals are inconsistent with the Act.

143. Vector **recommends** that claw-back of over-recovery be based on actual 2012-13 net revenue rather than permissible net revenue, i.e. sub-bullet

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[46] Box L.4, Appendix L, page 140, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[47] L33, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[48] Commerce Commission letter to EDBs dated 15 December 2011.

(b) of the definition of ω should be removed. This will ensure the amount of revenue to which claw-back is applied is equal to the amount of over- or under-recovery.

Appropriate discount rate to apply to claw-back

144. The Commission has invited submissions on the appropriate way to calculate the present value of the claw-back amount.

145. Vector refers the Commission to the reports of CEG on this matter.[49]

146. Vector agrees with the Commission that the appropriate discount rate to apply is not the 75th quartile estimate of WACC "because the claw-back amount is a fixed payment, which has nothing to do with systematic risk of the industry that the supplier is in".

147. Vector also agrees with the Commission that "Claw-back is ... more akin to a loan between suppliers and consumers". The discount rate should be determined based on "opportunity cost".

148. In determining the appropriate discount rate the Commission should also have regard to the following matters:

    a. CEG has made the point that "It can be argued that shortfalls or over-recoveries that have been made in the past are known quantities with no uncertainty associated with them. If accepted, these should be expressed in present value terms today using the risk-free rate as the appropriate discount rate."[50]

    b. The discount rate the Commission uses effectively amounts to a tax free return to consumers. A discount rate lower than the deposit rate consumers could receive from, say, a one year fixed term deposit could, consequently, exceed consumers' "opportunity cost" from the "loan".

    c. Given that the Commission intends to remove profits above the Commission's WACC, if the discount rate exceeds the benefit to EDBs from the year-long "loan" they may not expect to earn a normal return.

    d. The discount rate should accordingly be set within the bounds of consumers and EDBs' opportunity cost.

149. Vector **recommends** the Commission set the discount rate for claw-back at the risk free rate or, failing that, no more than the cost of debt, calculated as at 1 April 2012.

Timing of the claw-back/whether to use actual or forecast electricity volumes

150. Vector considers that it is desirable to base claw-back on actual rather than forecast electricity volumes as this removes the forecast error risks.

151. Vector **agrees** that if claw-back is applied it should take affect from 2014/15 (subject to adoption of a discount rate that would not make regulated suppliers (or consumers) worse off where claw-back is for over-recovery (under-recovery).[51]

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[49] CEG, Application of claw-back: A report for Vector, (June 2012) and Default price quality path reset (October 2012).

[50] Paragraph 18, CEG, Application of claw-back, Report to Vector, June 2012.

[51] Paragraph 144, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

The period of time (number of regulatory years) over which the claw-back occurs

152. Vector **notes** that if claw-back is adopted, to any alleged over-recovery, s 52D(2) of the Act requires that any lowering of prices must be spread over time to minimise undue financial hardship to the supplier and that this is regardless of the actual level of the price reduction.

153. The Commission takes the view that claw-back should occur over time only where it would otherwise result in more than a CPI+15% increase in a single year. The Commission is silent in the case of a price reduction.

154. Vector believes claw-back is required to be spread over more than one year. The size of the claw-back would determine whether it should be applied over two regulatory years (the minimum) or longer. Section 52D(2) of the Act states that "If the Commission requires a supplier to lower its prices, it must also require that the lowering of prices must be spread over time in order to minimise undue financial hardship to the supplier" (emphasis added). Section 52D(3) has similar requirements for recovery of any shortfall, the Commission "must require that any recovery must be spread over time in order to minimise price shocks to consumers" (emphasis added). The wording in ss 52D(2) and (3) does not provide the Commission with discretion to apply claw-back in a single regulatory year.

155. The wording in ss 52(D)(2) and (3) requires that the Commission treat regulated suppliers as if they will be under "undue hardship", regardless of whether they are or whether the Commission considers they are.

156. Notably, this is in contrast to s 53P(8), for setting of alternative rates of change for a particular supplier, under which the Commission has discretion to determine whether it considers there would be undue financial hardship to the supplier or there would be a price shock to consumers:

> The Commission may set alternative rates of change for a particular supplier—
>
> a. as an alternative, in whole or in part, to the starting prices set under subsection (3)(b) if, in the Commission's opinion, this is necessary or desirable to minimise any undue financial hardship to the supplier or to minimise price shock to consumers; *[emphasis added]*

157. Vector supports CEG's suggestion that claw-back should be set such that the annual effect of the claw-back is less than 2% of revenue.[52]

[52] Paragraph 32, CEG, Application of claw-back: A report for Vector, June 2012.

REGULATORY ERROR AND ASYMMETRIC RISK

158. Determining prices based on current and projected profitability is inevitably subject to error, irrespective of the time and effort the Commission invests in improving the robustness of its calculation of current and projected profitability.

159. The risk of regulatory error can be that it results in prices that are too low (resulting in below normal returns) or too high (resulting in above normal profits).

160. In the previous DPP reset/SPA Methodology consultation, the Commission's position was that no account needed to be taken of the asymmetric risk of regulatory error when resetting the DPP. This was because the Commission considered that regulated suppliers would use CPPs as an error correction mechanism. The Commission's view that suppliers would use the CPP as an error correction mechanism was not supported by evidence, ignored material provided by suppliers explaining why they would not use the CPP in this way, and was contrary to accepted regulatory principles.

161. In its Draft Reset Decision, the Commission continued primarily to rely on the availability of a CPP as a reason not to include an error correction mechanism in its SPA methodology. Vector refers to and relies on the extensive submissions it has previously made on this issue in addition to the points made below.[53]

162. It is well accepted that the long-term cost to consumers of underestimating prices outweighs the short-term costs of over-estimation i.e. the risks of regulatory error are asymmetric, as reflected by the following statements from the Commission itself and the MBIE:

> The Commission recognises that the consequences of underinvestment in infrastructure by regulated businesses can have a more significant impact on the interests of acquirers in the long term than the consequences of excessive prices to acquirers in the short term.[54]
>
> The costs of regulatory error tend to be asymmetric (i.e. the cost of errors leading to too-tough control terms and under-investment are likely to outweigh the costs of errors allowing higher than normal rates of return).[55]
>
> We are concerned with the 'long-term' interests of end users. This means that we have a preference against options which perhaps lead to short-term gains but which, by for example inhibiting investment in networks or services, ultimately reduce the wellbeing of end users.[56]

163. Consistent with these statements, the Commission has acknowledged that "where a tension exists between short-term allocative efficiency and long-term dynamic efficiency, the Commission will give greater weight to the promotion of the latter".[57] The risk of setting the DPP too low or too high should be seen precisely as a tension between dynamic (incentives to invest) and static/allocative efficiency.

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[53] For example, see Vector, *Submission to Commerce Commission on 2010-2015 DPP Starting Price* Adjustment *and Other Amendments Update Paper*, 16 May 2011; Vector, *Submission to Commerce Commission on Draft* Decision *on Starting Price Adjustments for Electricity Distribution Businesses*, 24 August 2011; Vector, *Submission to the Commerce Commission on the Setting of Starting Pricings for Gas Pipeline Businesses under the Initial Default Price-Quality Path*, 28 September 2011.

[54] Paragraph 759 of the Commerce Commission "Authorisation for the Control of Supply of Natural Gas Distribution Services by Powerco Ltd and Vector Ltd Decisions Paper", 30 October 2008.

[55] Paragraph 75, Ministry of Economic Development, Review of Regulatory Control Provisions under the Commerce Act 1986: Discussion Document, April 2007.

[56] Page 61, Trans-Tasman Roaming, Draft Report, August 2012.

[57] Paragraph 135, Commerce Commission, A Guide to Regulatory Decision Making by the Commerce Commission for the Telecommunications Sector – Discussion Paper, 31 July 2009.

Risk of over-estimating current and projected profitability

164. The Commission has asserted that it is "... confident that the [sic] almost all suppliers will expect to earn a normal return if the default price-quality path is reset" on the grounds that its "modelling relies on the supplier's own forecast of capital expenditure" and its "modelling of operating expenditure and revenue relies on independent forecasts that are free of systematic bias, in either direction".[58]

165. Vector considers these claims to be unsound and that the Commission should not assume its Revised Draft Reset will mean most regulated suppliers will expect to earn a normal return. This is, of course, something the Commission can seek confirmation of from regulated suppliers. As already discussed in this submission,[59] Vector considers that there are a confluence of issues that count against regulated suppliers expecting to earn a normal return, including but not limited to:

    a. Adoption of out-of-date capex forecasts that will inherently under-estimate actual capex.

    b. Opex forecasts that do not account for customer density and are biased against urban EDBs.

    c. The Commission's modelling of depreciation results in the amount of real depreciation being less than the real depreciation implied by the remaining life of the asset, where there is positive depreciation.[60]

    d. Exclusion of depreciation/return on investment in the year of commissioning because the IMs assume capex occurs at the end of the regulatory year.

    e. The Commission's econometric forecasting creates a potential wedge between cost and revenue forecasts (low forecast cost growth, but high forecast revenue growth). CEG notes that "This will result in overstatement of current and projected profitability and inappropriately high (downward) P_0 adjustments."[61]

166. In addition, under the Commission's current approach, as explained above, claw-back is based on permissible revenue, where it is greater than actual revenue. This will result in excessive claw-back of over-recovery, and insufficient claw-back of under-recovery.

167. Vector agrees with Castalia that "The inherent margin of error in the DPP methodology is compounded by the various inconsistencies in the methodologies identified ... such as the approach to econometric modelling and forecasting, the use of less reliable data, and inconsistencies in timing assumptions. Failing to address these modelling issues will lead to the Commission overstating the current and projected profitability of suppliers."[62]

168. Vector **notes** we do not believe the Commission should have confidence that, based on the Revised Draft Reset, most regulated suppliers will expect to earn a normal return if the DPP is reset.

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[58] Paragraph 110, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[59] Refer to the section "Modelling Issues".

[60] Section 2.2, CEG, Default price quality path reset, October 2012.

[61] Paragraph 74, CEG, Default price quality path reset, October 2012.

[62] Page 26, Castalia, Review of Revised Draft Reset of the 2010-15 Default Price-quality Paths, September 2012.

Relying on WACC to address regulatory error

169. In previous DPP reset/SPA Methodology consultation the Commission's position was that that "it would be inappropriate to include an additional margin when resetting the DPP" because:[63]

    a. The use of the 75th quartile WACC estimate would mean SPAs are "biased in favour of suppliers" and it "does not need to provide further bias in favour of suppliers, by providing for uncertainty in profitability forecasts".[64] The point here is that there is a high probability the mid-point is too low and is therefore not a good estimate. The 75th percentile is then adopted as the best estimate to balance the asymmetric risk of error in the WACC.

    b. The fall in the risk-free rate and debt premium since the DPP WACC was set means "that the real rate of return that we have allowed each EDB is already significantly above the rate of return currently required to incentivise investment" and "The risk of setting the DPP too low for any individual EDB is limited at present because we have provided all EDBs with a rate of return for the next three years that is significantly higher than investors currently require for that period".[65]

170. The Commission continues to adopt this reasoning in support of its view that most suppliers will earn a normal return and a margin for error is not required.[66] This is despite the submissions made by Vector and others that:

    a. The 75th percentile WACC point estimate is used to address volatility in estimates of the WACC parameters by adjusting for potential errors in the selection and estimate of WACC input parameters (it does not account for forecasting and modelling error in the assessment of current and projected profitability).[67]

    b. The DPP WACC has been set in accordance with the prescribed process in the IMs and is, therefore, a legitimate basis for EDB returns over the course of the regulatory period. A change in the risk free rate during the regulatory period is an irrelevant consideration and taking account of these matters is contrary to regulatory good practice and temporal certainty.[68]

171. Vector also notes that:

    a. The Commission's position is at odds with the statements the Commission made at the time it set the WACC IM. The Commission made it clear "... the social costs associated with underestimation of the cost of capital in a regulatory setting involving constraining prices to end users ... are likely to outweigh the short-term costs of overestimation (i.e. if the cost of capital is set too low, the incentives

[63] See for example, paragraph 2.47, Commerce Commission, Draft Decisions Paper, 2010-15 Default Price Quality Path for Electricity Distribution, July 2011.

[64] Paragraph 2.27, Commerce Commission, 2010-2015 Default Price-Quality Path Starting Price Adjustments Update Paper, 11 April 2011.

[65] Paragraph 2.43, Commerce Commission, Draft Decisions Paper, 2010-15 Default Price Quality Path for Electricity Distribution, July 2011.

[66] See for example paragraph 111 Commerce Commission, *Revised Draft Reset of the 2010-15 Default Price-Quality Paths*, 21 August 2012.

[67] Paragraphs 114 and 115, Vector, Submission to Commerce Commission on 2010-15 DPP Starting Price Adjustments and Other Amendments Update Paper, 16 May 2011.

[68] Paragraphs 33 and 34 Vector, Submission to Commerce Commission on Draft Decision on Starting Price Adjustments for Electricity Distribution Businesses, 24 August 2011.

for suppliers to undertake efficient investments will be reduced, which would be inconsistent with the long-term benefit of consumers)."[69]

b. The Commission's argument also fails to recognise regulated suppliers do not refinance annually. Just because interest rates may have declined since the beginning of the regulatory period does not mean a regulated supplier's WACC has gone down or they have benefited from the lower interest rates. The situation is akin to home ownership. Home owners typically have a mix of fixed and floating rate loans. To the extent they have fixed rate loans they will not benefit from interest rate reductions until the expiry of the fixed rate loan term(s).

172. Vector **notes** that:

a. The Commission adopted a 75th percentile WACC to address WACC estimation error only, and no errors in calculation of other components of current and projected profitability; and

b. Changes in interest rates cannot be relied on to compensate for regulatory error.

Use of CPP applications to address asymmetric risk

173. It should be self-evident that if it is assumed: (i) CPPs will correct for regulatory error (DPP set too low); and (ii) the only cost of a CPP is the application itself (which can be passed on to consumers) then asymmetric risk will not be a problem and there is little or no need to adjust for asymmetric risk. The calculations the Commission undertakes in Appendix J are not needed to inform this conclusion. What this basically shows is that if it is assumed CPP applications eliminate asymmetric risk, then there is no need to make any allowances for asymmetric risk.

174. The Commission's view that CPPs negate asymmetric risk, and its quantitative assessment of whether an additional allowance should be made for regulatory error, is only as robust as the (implicit or explicit) assumptions that this view hinges on:

a. CPPs will fully correct for regulatory error/inadequate returns under DPPs.

b. CPP applications are costless (and risk-free) to regulated suppliers; and

c. Regulated suppliers will, consequently, apply for CPPs where the DPP they are on is not adequate for the supplier to expect to earn a normal return.

175. Regulated suppliers disagreed with the Commission on these points and on whether the option of applying for a CPP negates the risks associated with setting regulated prices too low for a number of reasons:

a. if the regulatory error that resulted in the DPP being too low would also apply to the CPP (e.g. it is a consequence of shortcomings on an IM) then applying for a CPP will not resolve the problem;

b. the Commission could set a CPP that is worse for the regulated supplier than the DPP (s 53V(2)(a));[70]

[69] Paragraph H1.32, Commerce Commission, Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper, December 2010.

[70] For example, the approach the Commission takes to calculating WACC for CPPs means if interest rates have declined since the DPP WACC was set the CPP will be based on a lower WACC (even if the regulated supplier hasn't been able to refinance at the lower interest rates).

c. there are substantial resource and time costs associated with a CPP process (which will only be partially recovered through pass-through); and

d. deferring capex and/or opex may be a lower risk option for regulated suppliers to mitigate a DPP that results in expected returns below WACC.[71]

176. In response to the concerns about the risk of CPP applications the Commission has simply asserted that "Having considered these submissions ... we have not been convinced that an additional allowance for this mid-period reset would better promote the Part 4 Purpose".[72] The Commission has not directly responded to submitters' arguments to explain why it has not been convinced, which limits the extent to which suppliers are able to respond to the Commission's statement.

177. Vector refers to the statements made in the judgment in *Vector v Commission*.[73] Clifford J rejected the Commission's argument that a DPP SPA IM was not necessary because a regulated supplier could always apply for a CPP. Clifford J rejected this argument on the basis that there were uncertainties in the CPP process itself (for example, a proposal cannot be withdrawn and the Commission can propose an alternative CPP). This aspect of the judgment was not disturbed by the subsequent Court of Appeal decision.

178. It is not clear why the Commission does not consider that regulated suppliers face risk from making CPP applications; in particular that "Applicants can end up worse off under the customised proposal path if there is a finding that the default price-quality is too high, for whatever reason, as the Commission can order claw-back in relation to some or all of the over-recovery."[74]

179. The Commission asserts "regulated suppliers have over-stated the risks associated with a customised price path proposal"[75] and that "All the rules, requirements and processes for a proposal have been determined up-front."[76]

180. Vector does not see how any of this negates the risk the Commission could determine a CPP that is worse for a regulated supplier than the DPP or make errors in its determination of the CPP.

181. Even if regulated suppliers are incorrect about the level of risk in applying for CPPs, unless they are persuaded by the Commission's view, they will base their decisions on whether to apply for a CPP on their own assessment

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[71] For CPP applications to be risk-free would require that: (i) regulated suppliers could withdrawal their application at anytime (precluded by s 53R); and (ii) the Commerce Commission would not impose CPPs that are worse for the regulated supplier than the DPP they would otherwise be on (s 53C(a) expressly allows the Commission to set CPPs that are less favourable to the regulated supplier than the DPP).

[72] Paragraph 116, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[73] *Vector v Commerce Commission HC Wellington,* 26 September 2011, Clifford J, CIV-2011-485-536. at [130]. Clifford J also noted that the low cost nature of the DPP was intended to benefit suppliers in addition to the Commission.

[74] Page 7, Mark Berry and Lewis Evans, The New Regulatory Regime for Electricity Lines Businesses: Great Expectations Unfulfilled, 26 September 2008, available at http://www.iscr.org.nz/f466,13532/13532_New_Regulatory_Regime_Electricity_Lines.pdf.

[75] Paragraph 117, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[76] Paragraph 117, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

of the risk, not the Commission's assessment. So long as regulated suppliers perceive CPP applications to be risky, correct or not, they will not necessarily apply for a CPP even where the DPP is inadequate to enable them to earn normal returns. The CPP mechanism will, accordingly, not be able to fully address asymmetric risk.

182. Further, Vector does not believe it is the purpose of CPPs to act as an error correction mechanism. The specific purpose of DPPs/CPPs is to enable operation of "a relatively low cost-way of setting price-quality paths for suppliers of regulated goods or services, while allowing the opportunity for individual regulated suppliers to have alternative price-quality paths that better meet their particular circumstances" (s 53K). Applying for a CPP to correct for regulatory error would not reflect the "particular circumstances" of an individual regulated supplier.

183. Vector, accordingly, does not believe the Commission has provided a sound basis for rejecting the need for some form of allowance for regulatory error and asymmetric risk.

184. Vector **notes** that the Commission should not assume that CPPs are cost or risk-free for regulated suppliers or that regulated suppliers would necessarily apply for a CPP if the DPP is inadequate to enable a normal return.

185. Vector **recommends** that the Commission:

    a. make allowances for regulatory error and asymmetric risk in DPPs; and

    b. not rely on the right of regulated suppliers to apply for a CPP to address the risk of regulatory error.

INCENTIVES TO IMPROVE EFFICIENCY

186. Vector believes that the Commission's implementation of the new Part 4 of the Act has been very poor in terms of incentivising regulated suppliers to innovate and improve efficiency.

187. The Revised Draft Reset makes brief reference to IRIS, the staggered sharing mechanism proposed by Vector and s 54 Q mechanisms. These are considered further below.

188. Vector **notes** that if EDBs are going to have incentives to innovate and improve efficiency between now and the end of the regulatory period they need to know how those gains will be shared before the next reset.

Adoption of IRIS

189. We support the Commission's intention to further consider the adoption of an IRIS as part of the DPP after receiving submissions on the proposed reset.

190. The Commission has previously indicated it would take account of the sharing of efficiency gains in its DPP SPA methodology (when addressing concerns that an IRIS would not be included for DPPs).[77] The Commission's experts have also concluded that an IRIS is desirable.[78]

191. Vector agrees with the Commission that its present proposals result in diminishing incentives to achieve efficiency gains towards the end of the regulatory period,[79] and adoption of IRIS would help overcome this by enabling regulated suppliers to hold on to "the benefits of efficiency gains for a fixed number of years, irrespective of when they occurred during the regulatory period."[80]

192. Operation of Part 4, absent an IRIS, could result in substantial variation in incentives to improve efficiency over the regulatory period. Vector believes this is inconsistent with (i) the long-term interests of end-users (s 52A(1)); and (ii) with ensuring regulated suppliers have incentives to innovate and to invest (a) or have incentives to improve efficiency (b).

193. In summary, it is not controversial that an IRIS is required in order to best meet the Part 4 purpose.

194. The Commission, however, states that an IRIS can only be put in place by way of amendment to the DPP rules and processes IMs for the DPP. The Commission then says that this IM is not the subject of this consultation and it will consider it after receiving submissions on the proposed reset.[81]

195. Vector submits that it is critical that the Commission amend the IMs to include an IRIS as a matter of urgency. In Vector's view, the fact that

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[77] See Commission, Input Methodologies (Electricity Distribution) - Emerging Views Paper, 23 December 2009, p. 134. At the time the Commission considered it was unable to include an IRIS in the input methodologies because of its proposed band approach. It reassured suppliers this would be addressed at the DPP reset. Subsequently the Commission has moved away from the band approach. Yet it has not sought to amend the input methodologies to include an IRIS, nor has it addressing these issues in the DPP reset.

[78] See for example, pages 3 and 8, Dr Michael Pollitt, Input Methodologies: Expert Review of the New Zealand Commerce Commission's Draft Decisions and Reasons for Electricity Distribution Services and Gas Pipeline Services, July 2010.

[79] Paragraph 152, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[80] Paragraph 153, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[81] Paragraph 154, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

amendment of the processes and rules IM is not a subject of this consultation is an artificial distinction. The issues are clearly interrelated. Further, the Commission has already initiated and consulted on discrete amendments to other IMs in relatively short timeframes. There should be no impediment to doing the same for the IRIS.

196. Vector believes it would be relatively straightforward to adopt an IRIS as part of the DPP given that:

    a. It would have no ramifications for the mid-period regulatory reset in April 2013.

    b. The information required to apply an IRIS for a DPP is information that will be available regardless of whether an IRIS is introduced, so there should not be any issues of additional cost; and

    c. The IRIS that is already included in the 2010 IMs could be adopted with trivial consequential changes, i.e. amending the reference to "CPP regulatory period" to "CPP or DPP regulatory period" or the like.

197. Vector **recommends** the Commission amend the IRIS IM such that it applies to both CPPs and DPPs and do this as a matter of urgency (or, failing that, consider extending the duration of the Base Year to flatten out incentives). Vector **recommends** that this be done as a matter of urgency so that the incentives provided by the IRIS are operative for the 2015 - 2020 period.

Staggered Sharing Mechanism proposed by Vector

198. Vector does not believe the Commission has undertaken a sound assessment of the Staggered Sharing Mechanism.

199. Vector understands the Commission's reasoning against introducing a Staggered Sharing Mechanism at the mid-period reset "because incentive mechanisms only provide benefits to consumers when they have been signalled to suppliers up front".[82] For this reason, as with the IRIS (as discussed above), the introduction of a stagger at the earliest opportunity provides the best opportunity to enhance efficiency.

200. The Commission's statement highlights the importance of providing regulated suppliers with certainty about how it will operate Part 4 of the Act. At present, there is a considerable degree of uncertainty about the extent to which regulated suppliers will actually be rewarded for efficiency gains they make. The Commission, for example, has not yet prescribed when the Base Year will be for future regulatory resets, making it difficult for regulated suppliers to know what share of their efficiency gains they will actually retain at any point in time. This further highlights why it would be desirable for the Commission to incorporate its SPA Methodology into an IM or IMs.

201. The Commission's assessment of whether it should introduce a Staggered Sharing Mechanism in the future is seriously flawed, as the Commission appears to:

    a. misunderstand the incentives it would create; and

    b. mischaracterise the impact of the Revised SPA Methodology the Commission intends to adopt for the mid-period regulatory reset.

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[82] Paragraph 156, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

202. Vector does not consider that the Commission is correct that a Staggered Sharing Mechanism would cause "adverse incentives" including incentives "to artificially inflate their returns in the year prior to the adjustment".[83]

203. Any such incentives would not be caused by a stagger. They are a consequence of the volatility in rewards for efficiency improvements over the course of the regulatory period that the Revised Draft SPA Methodology creates, because it does not include an IRIS or other incentive smoothing mechanism (such as a longer Base Year).

204. The Commission goes on to argue that "a staggered sharing mechanism may also serve to 'lock in' any excessive profits that would be earned in future if prices from before the introduction of Part 4 are continued".[84]

205. This claim is factually incorrect.

206. Once a stagger is adopted any excess profits would be removed over future resets. "Locked in" implies the alleged "excessive profits" would become permanent.

207. The Commission is proposing to adopt a SPA Methodology under which all supranormal and excessive profits[85] are removed at the mid-period reset, except for supranormal profits arising from efficiency gains made after the start of the regulatory period. This means there would be no "excessive profits ... from before the introduction of Part 4" to "lock in" under a Staggered Sharing Mechanism.

208. The Commission then expresses concern that a stagger could create "the potential for windfall gains and losses ... because above normal returns are not necessarily attributable to efficiency gains".[86] This statement would be true for any form of economic regulation that is incentive-based, including the DPP's CPI-X, rather than pure rate of return regulation.

209. The Commission goes on to state that "We also considered whether it would be possible to implement a low cost approach to assess whether above normal profits were attributable to efficiency gains."[87]

210. The Commission is not proposing to make assessments about whether above normal profits are attributable to efficiency gains or not under the Commission's CPI-X DPPs (and CPPs). There is no reason why the Commission should take a different approach if it adopts a stagger.

211. Vector has dedicated considerable resources to carefully analyse the impacts of different incentive schemes under the DPP. This reflects the importance that s 52A(1) places on ensuring efficient operating and investment decisions, and the reality that suppliers can be encouraged (or discouraged) by regulation to improve efficiency. Vector considers that the long-term success of the DPP relies on providing suppliers with the ability to increase their returns if they can successfully innovate, improve efficiency, and deliver high quality of service.

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[83] Paragraph 158, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[84] Paragraph 159, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[85] As noted above, the Commission makes no distinction between supranormal and excessive profits.

[86] Paragraph 159, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[87] Footnote 92, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

212. Vector **recommends** the Commission introduce a Staggered Sharing Mechanism (if not at the mid-period reset, then for the next regulatory period reset).

S 54Q and energy efficiency incentives

213. Vector welcomes the Commission's statement that it "will give further consideration to any proposals" under 54Q of the Act, "as part of work leading up to the reset in 2015",[88] with regard to promoting incentives and avoiding disincentives for EDBs to invest in energy efficiency (EE), demand-side management (DSM) and reducing energy losses (REL).

214. The Commission states that it would be inappropriate to include a s 54Q mechanism in the price-quality path for the remaining years of this regulatory period because "the re-determined input methodologies do not give rise to revisiting the determination to enhance the existing structure of incentives."[89] This is presumably a reference to s 53ZB(1), which prohibits the reopening of DPPs except on the grounds of a change in an IM. However, the Commission would have had the option to include such mechanisms in an IM had it chosen to do so. Vector therefore does not find this argument persuasive. It is essentially a statement that the Commission cannot do something because it has chosen not to do it.

215. The Commission has stated that "we do not consider that our proposed decision imposes any disincentive for suppliers to invest in energy efficiency, demand side management, or the reduction in losses". Vector's previous submissions[90] demonstrate that the Commission is incorrect. For example, the fact that the revenue/profit EDBs are able to earn depends on demand volume (including relative to the Commission's projected volume growth), and demand growth is impacted by EE and DSM means that the price cap regime will (and does) disincentivise EDBs from investing in EE and DSM.[91]

216. Vector's trialling of a solar photovoltaic and battery storage system provides a useful illustration. The package includes a solar PV/battery storage and grid integrated solution and has potential benefits for both its network and customers. For example, the system enables Vector to reduce a customer's energy consumption during peak network demand times by discharging the battery power that has been created during the day from their solar panels. This means Vector can reduce peak demand and stress on its network during programmable peak usage hours. The system also benefits consumers by offering them opportunities to substantially reduce the amount of electricity they take from the grid. One of the barriers Vector faces to making this initiative commercial is the effective "tax" from lower allowed revenue as a consequence of reduced energy growth.

217. The Commission has also asserted that "Suppliers will retain pricing flexibility to set time-of-use tariffs" and "This pricing flexibility allows suppliers to manage peak demand on their networks ... while still

[88] Paragraph 165, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[89] Paragraph 161, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[90] For example: Vector Limited, Submission to Commerce Commission on Electricity Default Price Quality Path Discussion Paper, 17 July 2009, pages 12-16; Electricity Networks Association, Energy Efficiency Incentive Issues, 18 May 2009.

[91] This disincentive does not apply to RELs as energy losses do not directly affect EDBs' line charge revenue.

generating the same level of revenue" (emphasis added).[92] This claim is flawed. If EDBs invest in EE or DSM the investments will affect the usage profile of the relevant consumers. If these investments reduce demand or demand growth, the EDBs' allowed revenues under a price cap will be reduced at least in the short-term.

218. If the investments shift peak demand to off-peak periods, it will not always be possible to accurately predict the new patterns of consumption. EDBs may under- or over-predict the likely changes in usage and will therefore be cautious in changing their prices for customer groups based on such investments. In other words, maintaining revenue based on shifts to time-of-use tariffs is far from certain.

219. Further, the IMs provide no clear guidance on the treatment of investment in EE, DSM and REL by EDBs. Thus there is some uncertainty as to the appropriate regulatory treatment of such investments. In and of itself, this creates a disincentive as it is unclear whether the costs of such investments can be recovered through regulatory mechanisms.

220. For example, EDBs may consider it efficient to roll out a large scale deployment of energy efficient light bulbs in order to reduce system peaks, rather than invest in new network technologies (such deployments have been made internationally by utility firms). Vector is trialling a retrofit of LED light bulbs to replace incandescent and halogen bulbs. This achieves the same objective as the solar PV/battery trial, in reducing peak demand, but also suffers from the commercial perspective relating to lower energy growth. However, such investments would also be hindered by uncertainty about whether such a rollout can be treated as a regulatory investment.

221. Where an EE investment would have the same effect on network supply security as a traditional investment but would have additional benefits such as reduced growth in demand for upstream transmission and/or generation investment, those benefits should be recognised by the party making the investment or a sub-optimal level of investment will occur. Lack of specific s 54Q mechanisms means these benefits may not be considered in EDB decision making.

222. For example, any EDB decision to roll out energy efficient light bulbs will be based on the peak reduction benefits to the EDB but will not take account of the benefits to Transpower or generators. Further, energy efficient light bulbs would reduce energy consumption by approximately 80% compared to traditional incandescent bulbs but EDBs will lose revenue as a result. Thus deployment of such technologies is therefore likely to be less than socially optimal under current regulatory settings

223. The Commission argues the proposed Information Disclosure Requirements relating to investment in EE, DSM and REL go some way to meeting the Commission's obligations under s 54Q.[93] However, the disclosure requirements, while welcome, are simply mechanisms for recording actual and forecast expenditure on EE, DSM and REL. The disclosure requirements will help determine how well s 54Q is being met but do not provide any incentives, or remove any disincentives, to invest in EE, DSM and REL and therefore do not meet the Commission's obligations under s 54Q. The Commission has provided no explanation how the proposed information disclosure requirements would affect incentives to invest.

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[92] Paragraph 163, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[93] Paragraph 164, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

224. For the avoidance of doubt, the weak incentives Vector believes the Commission is creating for regulated suppliers to invest, innovate and improve efficiency (as per ss 52(A)(1)(a) and (b)) exacerbates concerns about whether s 54Q is being satisfied and heightens the need to adopt specific s 54Q mechanisms.

225. Vector **recommends** the Commission:

    a. consider interested parties' proposals for specific s 54Q mechanisms; and

    b. work with the industry, as necessary, to ensure it implements specific s 54Q mechanisms that will ensure the Commission satisfies the obligation that it "must promote incentives, and must avoid imposing disincentives ..."

ISSUES WITH THE WACC ADOPTED IN CPPs

226. Vector supports consideration of how to address distortions to incentives to apply for CPPs created by the Commission's CPP WACC IM.

227. The Commission has correctly observed that "... the probability of a customised price-quality path proposal will be determined in part by movements in the WACC".[94]

228. The Commission's current approach creates an artificial bias for/against CPP applications. When interest rates decline (increase) regulated suppliers will be less (more) likely to apply for a CPP, as they will be penalised (rewarded) by a reduction (increase) in the WACC used to set their prices. This could exacerbate problems with regulated suppliers not making CPP applications when the DPP is inadequate for their particular circumstances (when interest rates decline) and could result in CPP applications when they are not needed (purely because interest rates have risen and the Commission will allow a higher WACC).

229. The issue primarily arises due to the volatility of interest rates. It is particularly apparent in the current circumstances where interest rates are at historical lows. With interest rates structures already in place it is highly likely that the Commission's DPP WACC will be below the funding cost faced by regulated suppliers over the coming (and possibly subsequent) regulatory periods.

230. Utility businesses generally borrow for longer terms and adopt conservative interest rate management policies to mitigate interest rate volatility (with objectives such as achieving the lowest interest cost in the long term).

231. Vector has consistently promoted the use of the ten-year risk-free rate, rather than the five-year risk-free rate, in setting the regulatory WACC. It is generally accepted that the ten year rate is less volatile than the five year rate.

232. The volatility in the risk-free rate could be further reduced if the rate was based on a rolling ten-year average (as used by Ofgem) rather than an average over a single month.

233. The Commission has also indicated that the recent fall in the risk-free rate and debt premium could create windfall for regulated suppliers that remain on the DPP e.g.:

> ... as a result of the recent fall in the risk-free rate and debt premium, we consider that the real rate of return that we have allowed each EDB is already significantly above the rate of return currently required to incentivise investment[95]
>
> ... the 2010-15 DPP will reflect the return that investors required at the outset of the 2010-15 period, whereas a CPP would provide EDBs with the (lower) return that investors require now.[96]

234. These statements are incorrect. Vector considers that these statements misapprehend the opportunity cost principle of setting the cost of funding at the commencement of the regulatory period and the funding and interest rate management approaches adopted by utilities (as discussed above). The Commission must accept that the swapping of interest rates on long term debt, to "match" the current market rate, is not a costless exercise, i.e. as

[94] Footnote 76, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

[95] Paragraph X.16, Commerce Commission, 2010-15 Default Price-Quality Path for Electricity Distribution, Draft Decisions Paper, July 2011.

[96] Paragraph 2.45, Commerce Commission, 2010-15 Default Price-Quality Path for Electricity Distribution, Draft Decisions Paper, July 2011.

noted in the current merits review hearing – there is no free lunch in a swap.

235. The Commission suggests that "One way to prevent movements in the WACC from affecting the probability of a customised price-quality path proposal would be to apply the WACC from the current regulatory period for the opening years of the term of the customised price-quality path, before using a forward starting rate to estimate the WACC applying during the next regulatory period."[97] Requiring that the CPP WACC be equal to the DPP WACC for the duration of the DPP regulatory period may help address the artificial barrier concern but would preclude CPP applications where the DPP WACC would be inadequate e.g. where a regulated supplier was seeking a uplift in its price path because of substantial new capex which would have to be funded at interest rates that are higher than at the time the Commission set the DPP WACC.

236. Vector instead **recommends** that the Commission: (i) ensures changes in interest rates do not create an artificial barrier to CPP applications, but (ii) enables regulated suppliers to seek revision of the WACC through CPP applications where the DPP WACC is inadequate to enable them to earn a normal return.

[97] Footnote 76, Commerce Commission, Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 21 August 2012.

CONCLUDING REMARKS AND RECOMMENDATIONS

237. Vector does not share the Commission's confidence that its Revised Draft Reset will result in EDBs expecting to earn normal returns for 2012-15. Other EDBs share the same concerns, as reflected in the Electricity Network Association submission which raises a number of concerns about the Commission's forecasting, calculation of current and projected profitability and absence of an error correction mechanism.[98]

238. Vector's concerns are summed up well by Castalia's statement that "The inherent margin of error in the DPP methodology is compounded by the various inconsistencies in the methodologies ... such as the approach to econometric modelling and forecasting, the use of less reliable data, and inconsistencies in timing assumptions. Failing to address these modelling issues will lead to the Commission overstating the current and projected profitability of suppliers."[99]

239. As a first point, Vector reiterates its position set out in previous submissions: that the Commission should include allowances for regulatory error and asymmetric risk in DPPs.

240. Without prejudice to this position, the focus of this submission has been on developing recommendations that help address Vector's concern that the Commission's Revised Draft Reset SPA Methodology (and Models) will over-state the current and projected profitability of EDBs, resulting in excessive (inadequate) P_0 adjustments where the Commission estimates there has been over-recovery (under-recovery).

Vector's recommendations in full

241. For the convenience of the reader, Vector's recommendations are recapped below:

Mid-period reset timing

242. If the Commission undertakes a price reset but is unable meet 30 November for final decisions, then Vector **recommends** that it consider delaying the reset to 1 April 2014 and applying claw-back between 1 April 2013 and 2014.

Modelling issues

243. Vector **recommends** the Commission consider how to simplify the SPA Model and improve its transparency.

244. Vector **recommends** all changes made to convert the previous SPA Model to the new Model are documented clearly (this would be consistent with standard modelling good practice), with reconciliation between the two models.

245. Vector **recommends** that the Commission issue a note specifying the steps it took to review and clean the data used in the SPA Model.

246. ***Difference between stated and actual SPA:*** Vector **recommends** the Commission is clear in its final decision and in any media statements or briefing to market analysts that its proposed P_0s are indicative only and the actual percentage price adjustment may be different.

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[98] Electricity Networks Association, Submission on the Revised Draft Reset of the 2010-15 Default Price-Quality Paths, 1 October 2012.

[99] Page 26, Castalia, Review of Revised Draft Reset of the 2010-15 Default Price-quality Paths, September 2012.

247. ***Capex forecasts based on 2010 AMP:*** Vector **recommends** the Commission use the 2012 AMP forecasts to forecast commissioned asset expenditure over the regulatory period.

248. If the Commission does not accept that recommendation, Vector **recommends** that the Commission use the 2011 AMP forecasts to forecast commissioned asset expenditure over the regulatory period.

249. ***2009/10 Commissioned Asset Data:*** Vector **recommends** the 2009/10 commissioned asset value number is taken from the s 53ZD notices.

250. ***Non-network capex:*** Vector **recommends** an average of the 2008-11 years is used for forecasting non-network capex.

251. ***Commissioned Asset Forecasts:*** Vector **recommends** that the Commission adopt the approach proposed in its July 2011 Draft Decision of applying a growth rate to the Base Year number (which was disclosed under section 53ZD notices, consistent with the IMs), where the growth rate is derived from the change in the AMP capex forecasts over time.

252. ***Base Year:*** Vector **recommends** the Commission use 2010 as the Base Year for the mid-period reset, as proposed, but for future resets consider adopting a broader (two or more) Base Year, that is determined upfront (in advance of the Base Year).

253. ***Opex Partial Productivity Growth:*** Vector **recommends** that the opex partial productivity component is removed from the opex cost calculation. Vector made a similar series of points in its previous submission and notes they have not been addressed by the Commission.[100]

254. ***TCSD Allowance:*** Vector **recommends** the TCSDA for Vector is set to $706,000 as described in the attached spreadsheet.

255. ***Cash-flow timing assumptions:*** Vector **recommends**, if cash flow timing for all items is not year-end, then:

    a. the Commission explicitly recognise that the 3 November revenue timing assumption is an allowance for working capital; and

    b. the Commission amend the asset valuation IM to ensure depreciation is treated consistently with the mid-year timing assumptions in the SPA model.

256. **Cash-flow timing:** Vector **notes** the Commission has adopted an approach to intra-year cash flow timing assumptions that, together with the interaction of WACC and RAB IMs, negatively impact on the profile of cash businesses can expect to receive during the regulatory period and over the life of the asset.

257. ***Tax depreciation changes in 2010:*** Vector **recommends** the tax depreciation rate applied to new assets in the years 2011–15 is the rate derived by dividing 2010 tax depreciation by 2010 opening regulatory tax asset value (both numbers provided by EDBs in their statutory notices), reduced by 20%.

258. ***Tax calculation:*** Vector **recommends** permanent differences and temporary differences for tax calculation are included in the SPA Model, with the disclosed 2010 numbers being applied to all years within the model.

259. ***Calculation of depreciation:*** Vector **recommends** the value of depreciation returned to the business is increased to reflect the effect of inflation.

[100] Ibid.

260. ***Use of 2009 and 2012 CPI forecasts:*** Vector **recommends** the Commission uses the 2009 CPI forecast for all items within the SPA Model.

261. ***Wash-up:*** Vector **notes** it continues to support the introduction of a "wash-up" mechanism into the DPP to adjust EDB revenues in the 2015 regulatory year to compensate for under-recovery or correct any over-recovery in 2014.

Econometric issues

262. Vector **recommends** that the Commission provide evidence to substantiate its claim that "modelling of operating expenditure and revenue relies on independent forecasts that are free of systematic bias, in either direction" before making the final DPP decision.

263. ***Opex expenditure forecasting:*** Vector **recommends** that the Commission adopt customer density as an additional explanatory variable for network opex.

264. Vector **recommends** that the Commission undertake econometric forecasts of total opex, rather than separate forecasts for network and non-network opex.

265. ***Constant price revenue growth:*** Vector **recommends** the Commission:

    a. Undertake an analysis of why the regional GDP growth data appears to produce a number of anomalous results; and

    b. Consider whether forecasts based on national (historic) GDP growth would be more reliable.

Claw-back

266. For the avoidance of doubt, Vector **agrees** with the Commission that it should not apply claw-back for any alleged over-recovery between 1 April 2010–12.

267. Vector **notes** its previous recommendation that the Commission consider the impact that claw-back and mid-period price resets would have on incentives to improve efficiency in the context of decisions on whether to adopt a Staggered Sharing Mechanism and IRIS.

268. ***Permissible versus actual revenue:*** Vector **recommends** that claw-back of over-recovery is based on actual 2012-13 net revenue rather than permissible net revenue, i.e. sub-bullet (b) of the definition of ω should be removed.

269. ***Discount rate:*** Vector **recommends** the Commission set the discount rate for claw-back at the risk free rate or, failing that, no more than the cost of debt, calculated as at 1 April 2012.

270. ***Timing:*** Vector **agrees** that if claw-back is applied it should take affect from 2014/15 (subject to adoption of a discount rate that would not make regulated suppliers (or consumers) worse off where claw-back is for over-recovery (under-recovery).

271. Vector **notes** that if claw-back is adopted, to any alleged over-recovery, s 52D(2) of the Act requires that any lowering of prices must be spread over time to minimise undue financial hardship to the supplier and that this is regardless of the actual level of the price reduction.

Regulatory error and asymmetric risk

272. Vector **notes** we do not believe the Commission should have confidence that, based on the Revised Draft Reset, most regulated suppliers will expect to earn a normal return if the DPP is reset.

273. Vector **notes** that:

   a. The Commission adopted a 75th percentile WACC to address WACC estimation error only, and no errors in calculation of other components of current and projected profitability; and

   b. Changes in interest rates cannot be relied on to compensate for regulatory error.

274. Vector **recommends** that the Commission not assume that CPPs are cost or risk-free for regulated suppliers or that regulated suppliers would necessarily apply for a CPP if the DPP is inadequate to enable a normal return.

275. Vector **recommends** that the Commission:

   a. make allowances for regulatory error and asymmetric risk in DPPs; and

   b. not rely on the right of regulated suppliers to apply for a CPP to address the risk of regulatory error.

Efficiency incentives

276. Vector **recommends** the Commission ensure it gives full and proper consideration of options to enhance incentives to improve efficiency and maximise the efficiency gains available to be shared (ss 52A(1)(b) and (c)), including but not limited to:

   a. an IRIS

   b. a Staggered Sharing Mechanism;

   c. an s-factor to link revenue to service quality; and

   d. specific s 54Q mechanisms.

277. Vector **notes** that if EDBs are going to have incentives to innovate and improve efficiency between now and the end of the regulatory period they need to know how those gains will be shared before the next reset.

278. ***Adoption of IRIS:***

279. Vector **recommends** the Commission amend the IRIS IM such that it applies to both CPPs and DPPs and do this as a matter of urgency (or, failing that, consider extending the duration of the Base Year to flatten out incentives). Vector **recommends** that this be done as a matter of urgency so that the incentives provided by the IRIS are operative for the 2015 - 2020 period.

280. ***Staggered sharing:*** Vector **recommends** the Commission introduce a Staggered Sharing Mechanism (if not at the mid-period reset, then for the next regulatory period reset).

281. ***S 54Q and energy efficiency incentives:*** Vector **recommends** the Commission:

   a. consider interested parties' proposals for specific s 54Q mechanisms; and

   b. work with the industry, as necessary, to ensure it implements specific s 54Q mechanisms that will ensure the Commission satisfies the obligation that it "must promote incentives, and must avoid imposing disincentives ..."

Issues with the WACC adopted in CPPs

282. Vector **recommends** that the Commission: (i) ensures changes in interest rates do not create an artificial barrier to CPP applications, but (ii) enables regulated suppliers to seek revision of the WACC through CPP applications where the DPP WACC is inadequate to enable them to earn a normal return.