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Specification and Amendment of Input Methodologies as Applicable to Default Price-Quality Paths

Reasons Paper

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Contents

Chapter One: Introduction	4
Purpose of this paper.....	4
Input methodologies that apply to default price-quality paths.....	4
Amendment to the cost of capital input methodology for default price-quality paths	7
Chapter Two: Overview of input methodologies that apply to default price-quality paths	8
Purpose of this chapter.....	8
Input methodologies for cost allocation, asset valuation and the treatment of taxation.....	8
The allocation of costs	9
The valuation of assets	9
The treatment of taxation	10
Periods other than 12 months.....	11
Chapter Three: Responses to particular topics raised in submissions	12
Purpose of this chapter.....	12
Definition of forecast inflation that is applied when asset revaluations are calculated.....	12
CPI used for asset revaluations excludes the impact of changes in Goods and Services Tax	15
Issues related to asset revaluations if default price-quality paths are reset under s 54K(3).....	16
Average asset life used to calculate depreciation	17
Valuation of commissioned assets.....	20
Attachment A: Summary of submissions and changes to the draft input methodologies	22
Purpose of this attachment	22
Summary of key submissions.....	22
Other changes to the draft input methodologies.....	27
Attachment B: Amendment to the cost of capital for a term credit spread differential allowance	28
Purpose of this attachment	28
Amendment for estimating term credit spread differential allowance.....	28
Response to submissions	28

Chapter One: Introduction

Purpose of this paper

1. This paper provides an overview of, and reasons for, the following input methodologies that apply to default price-quality paths:¹
 - 1.1 cost allocation;
 - 1.2 asset valuation (including depreciation and treatment of revaluations); and
 - 1.3 the treatment of taxation.
2. This paper also explains an amendment to the input methodology for the cost of capital that applies to default price-quality paths. The amendment sets out how a term credit spread differential allowance is estimated.²

Input methodologies that apply to default price-quality paths

3. In December 2010, we determined the key rules, requirements and processes of regulation, which are collectively known as ‘input methodologies’. These input methodologies apply to the regulation of electricity distribution, gas distribution and gas transmission services.³
4. However, we did not specify input methodologies for cost allocation, asset valuation and the treatment of taxation as applicable to default price-quality paths. Input methodologies for these matters were only specified as applicable to customised price-quality path proposals, and to information disclosure regulation.⁴

¹ These input methodologies are set out in additional chapters of determinations 710, 711 and 712 that have been issued alongside this paper. A consolidated version of the re-determined input methodologies will be published in accordance with s 52W of the Commerce Act 1986. Note, all statutory references from this point on refer to the Commerce Act 1986 unless otherwise stated.

² A Notice of Intention to start work on this amendment was issued on 7 June 2012. See Commerce Commission, *Notice of Intention: Proposed Amendment to Cost of Capital Input Methodology for Electricity Lines Services and Gas Pipeline Services*, 7 June 2012.

³ Prior to input methodologies being introduced, many of the matters covered by input methodologies were contentious aspects of regulatory decision making. For example, in the gas sector, the approaches used in our *2004 Gas Control Inquiry* for asset valuation, cost allocation and the treatment of taxation were all subject to judicial review. In addition, we consulted for a number of years on the appropriate asset valuation methodology to be applied to our decision-making for the *2008 Gas Authorisation*. We consulted for a further two years on the same topic before input methodologies for asset valuation were determined in December 2010.

⁴ Commerce Commission, *Input Methodologies (Electricity Distribution and Gas Pipeline Services), Reasons Paper*, 22 December 2010.

Directions from the High Court

5. In September 2011, the High Court held that input methodologies for cost allocation, asset valuation and the treatment of taxation must also be specified as applicable to default price-quality paths.⁵ The High Court also directed us to determine a stand-alone input methodology for starting price adjustments, but the Court of Appeal has since concluded that this input methodology is not required.⁶
6. We are therefore required to re-determine Decisions 710, 711, and 712 to specify input methodologies for cost allocation, asset valuation and the treatment of taxation as applicable to default price-quality paths.⁷ These decisions apply to the regulation of electricity distribution, gas distribution, and gas transmission services respectively.
7. The input methodologies for cost allocation, asset valuation and the treatment of taxation will affect our assessment of the main 'building block' cost components⁸ when we set starting prices based on the current and projected profitability of each supplier.⁹

We must specify how input methodologies apply to each type of service

8. As far as reasonably practicable, we are required to set out how we intend to apply the input methodologies to each type of regulated service.¹⁰ Notably, the way that each input methodology is applied varies depending on the type of regulation in question.¹¹ We have therefore determined input methodologies that are specifically tailored to default price-quality paths.

⁵ *Vector Limited v Commerce Commission* HC Wellington, 26 September 2011, Clifford J, CIV-2011-485-536, paragraph 153.

⁶ *Commerce Commission v Vector Limited* [2012] NZCA 220, paragraph 59. Vector has since appealed this decision. The appeal is due to be heard in the Supreme Court in October 2012.

⁷ None of the existing input methodologies in Decisions 710, 711, or 712 were rendered invalid by the High Court's decision. High Court, *supra* n 5, paragraph 154.

⁸ A general overview of the building blocks approach can be found in the *Input Methodologies Reasons Paper*. See Commerce Commission, *supra* n 4, paragraphs 2.8.5 to 2.8.20. The input methodologies for the cost of capital will also affect our assessment of the building block costs facing suppliers. Input methodologies for the cost of capital were specified as applicable to default price-quality paths in December 2010.

⁹ That is, if starting prices are set under s 53P(3)(b). In combination with the allowable rate of change in price, the supplier's starting price constrains the prices that are allowed until the price path is reset.

¹⁰ Refer: s 52T(2)(b) of the Commerce Act 1986.

¹¹ This approach was confirmed by the Court of Appeal. At paragraph 56 of the Court's judgment (see *supra* n 6), Justice Arnold clarified that if the valuation of assets is relevant to two or more forms of

9. The overall approach to cost allocation, asset valuation, and the treatment of taxation is set out in Chapters 3 to 5 of the *Input Methodologies Reasons Paper*.¹² In Appendices B, E, and G of that paper, we set out how the overall approach is applied in the context of customised price-quality path proposals, and information disclosure regulation.¹³

How will the input methodologies apply to default price-quality paths?

10. This paper describes the input methodologies that will apply in the context of default price-quality paths. These input methodologies must be consistent with the other input methodologies that relate to the same type of regulated service.¹⁴
11. The input methodologies have been specified in a way that recognises the low cost intent of default price-quality paths. The purpose of default/customised price-quality regulation is to provide a relatively low cost way of setting price-quality paths for suppliers, while allowing the opportunity for individual suppliers to have alternative price-quality paths that better meet their particular circumstances.¹⁵

regulation, there should be an input methodology for each. The Court confirmed that an input methodology must be tailored to the particular type of regulation to which it applies.

¹² Commerce Commission, *supra* n 4. The *Input Methodologies Reasons Paper* also provides a general overview of the regulatory framework.

¹³ A summary table of the similarities and differences in the way that the input methodologies for asset valuation may be specified as applicable to customised price-quality path proposals relative to default price-quality paths can be found in Electricity Networks Association, *Submission on Additional Input Methodologies for Default Price-Quality Paths*, 27 January 2012, p. 16. This table illustrates that, while the overall approach is consistent in each instance, the specific way in which the input methodology is applied may differ. For example, a straight-line depreciation approach may be applied in one of two ways: first, to individual assets using individual asset lifetimes (as specified for customised price-quality paths); secondly, by applying straight-line depreciation to the aggregate asset base using an average asset lifetime assumption (as we have now specified for default price-quality paths).

¹⁴ Refer: s 52T(2)(c).

¹⁵ Refer: s 53K.

12. Consistent with the relatively low cost intent of default price-quality paths, and with views of submitters, we have:¹⁶
 - 12.1 taken the existing input methodologies for cost allocation, asset valuation, and the treatment of taxation as a starting point; and
 - 12.2 simplified the components where necessary.
13. The input methodologies that apply to default price-quality paths will utilise information that has already been disclosed by each supplier, either in response to an information disclosure determination, or an information gathering request. In either case, reference would be had to the input methodologies for information disclosure regulation. This will ensure that the input methodologies for determining price-quality paths will use information that is consistent with the input methodologies that apply to information disclosure regulation.
14. We provide an overview of how each of the input methodologies apply to default price-quality paths in Chapter Two. Chapter Three sets out our responses to submissions on particular topics that were raised during consultation. Responses to submissions on other topics are set out in Attachment A.

Amendment to the cost of capital input methodology for default price-quality paths

15. We have also amended the term credit spread differential allowance component of the cost of capital input methodology that applies to default price-quality paths. This amendment sets out how we forecast a term credit spread differential allowance during the regulatory period. The amendment is discussed further in Attachment B.

¹⁶ For example, the Electricity Networks Association, supra n 13, argued that the input methodologies applying to default price-quality paths would be “based on estimates or a more simplified approach” than the input methodologies for customised price-quality path proposals (page 2). The Electricity Network Association also recognised that, while a “less detailed” approach may be appropriate for default price-quality paths, “retaining consistency” with the existing input methodologies was important (page 15).

Chapter Two: Overview of input methodologies that apply to default price-quality paths

Purpose of this chapter

16. This chapter provides an overview of how the input methodologies for cost allocation, asset valuation, and the treatment of taxation have been specified for default price-quality paths.

Input methodologies for cost allocation, asset valuation and the treatment of taxation

17. The input methodologies set out how we must assess aspects of the building block costs in any year necessary to assess the current and projected profitability of each supplier. Consequently, we have specified the input methodologies in a way that ensures that:
 - 17.1 the calculations can apply to any relevant disclosure year (including part years);
 - 17.2 the tax calculation is appropriate from any revenue starting point;¹⁷ and
 - 17.3 the approach is flexible enough to deal with any subsequent decision on how the timing of items affects our assessment of present values (as determined during a s 53P consultation process).
18. We have also specified a 'base year' to clarify that, in assessing the current profitability of each supplier, certain information will be sourced from the same disclosure year. In particular, the 'initial' information on cost allocation, asset valuation, and the treatment of taxation will all be sourced from the same base year.¹⁸

¹⁷ For example, building blocks allowable revenue or smoothed revenue.

¹⁸ A number of submitters supported a reliance on information from a single base year. Refer, for example: Electricity Networks Association, supra n 13, paragraph 26. However, we have not specified the exact timing of the base year relative to the reset decision. This is because the context of each reset will vary, including the information that it is practical to take into account in time to reach a decision, and the nature of the reset. For example, if the supplier is transitioning back to a default price-quality path from a customised price-quality path or the default price-quality path is being periodically reset at the end of a regulatory period. It is therefore more appropriate to consult on these matters on a case by case basis at the time of each reset.

The allocation of costs

19. The cost allocation input methodology sets out the approach for allocating forecast operating costs and forecast asset values. These costs are allocated between:
 - 19.1 different types of service that are regulated under Part 4 of the Commerce Act 1986; and
 - 19.2 services that are regulated under Part 4, and services that are not.
20. All costs associated with the supply of regulated services are allocated under the cost allocation input methodology, including costs that are common to two or more types of regulated service.

How cost allocation has been specified as applicable to default price-quality paths

21. The cost allocation approaches for forecast operating costs and forecast asset values are consistent with those for cost forecasts for customised price-quality paths. The approach is as follows:
 - 21.1 operating cost forecasts must be consistent with the allocation of operating costs calculated under the cost allocation input methodologies for information disclosure for the base year. In practice, the base year operating costs will be obtained from already disclosed information, if available, or from a s 53ZD notice otherwise.
 - 21.2 forecast value of commissioned assets can be included in the value of the Regulatory Asset Base (RAB), but only to the extent that the value would be included in the RAB consistent with the application of the cost allocation input methodologies for information disclosure.

The valuation of assets

22. The asset valuation input methodology describes the way in which assets will be valued, including depreciation and the treatment of revaluations.

How asset valuation has been specified as applicable to default price-quality paths

23. The total value of assets in the base year will be calculated by suppliers in accordance with the input methodologies for information disclosure regulation. For each subsequent disclosure year, the value of assets from the base year will be rolled forward to reflect the aggregate value of assets forecast to be commissioned, plus aggregate revaluations, but less aggregate depreciation and forecast disposals.
24. The approach to each component affecting the roll forward is summarised below.

- 24.1 Assets forecast to be commissioned and disposed will be valued using a CPI-indexed historic cost valuation approach consistent with assets already in the RAB.
 - 24.2 Revaluations will be calculated by multiplying the aggregate opening value of assets by the forecast change in CPI in each year of the regulatory period.¹⁹
 - 24.3 The aggregate value of depreciation will be calculated in each year of the projection period on a straight-line basis using a different average asset lifetime assumption for existing and additional assets.
 - 24.4 Lost and found assets will be assumed to be nil.
25. Any revaluations will be treated as income for the purposes of assessing profitability. This is consistent with the equivalent input methodologies for asset valuation that are applicable to customised price-quality path proposals, and information disclosure regulation.

The treatment of taxation

26. The input methodology for the treatment of taxation is used to derive a supplier's tax costs. These costs cannot be observed directly, and need not be recovered by the supplier in the year in which they occur.

How the treatment of taxation has been specified as applicable to default price-quality paths

27. The treatment of taxation as applicable to default price-quality paths is based on the customised price-quality path input methodologies with some simplifying assumptions to meet the low-cost intent of default price-quality paths. These assumptions are set out below.
- 27.1 Regulatory tax allowance is calculated by applying a tax formula consistent with that used for customised price-quality path input methodologies, and reliant on an income/revenue value to be determined by the Commission during the consultation process for starting prices, ie, under s 53P(2).
 - 27.2 Tax depreciation is to be calculated using an average diminishing value rate applied to aggregated values.²⁰
 - 27.3 Tax losses are those already disclosed for the base year, if available, or in responses to a s 53ZD notice otherwise.

¹⁹ In calculating revaluations, we apply an aggregate end of life adjustment to the opening asset value. This adjustment is discussed further in Chapter 3.

²⁰ Permanent and temporary tax differences are assumed to be nil, except for depreciation temporary differences.

27.4 Discretionary discounts and customer rebates for tax purposes will be set to nil.²¹

Periods other than 12 months

28. The input methodologies have also been specified so that they can be modified as required to allow roll forward parameters such as RAB values, deferred tax and tax asset values to apply, and produce associated values for items such as depreciation and revaluations, for a disclosure year period other than 12 months.
29. This may be necessary where a disclosure year-end does not align with the start or end of a default price-quality path regulatory period. In this case RAB values, deferred tax and tax asset values need to be rolled forward by a period other than 12 months. The modified calculations must be undertaken in a way commensurate with the change in the length of the period.

²¹ Some suppliers of electricity distribution services provide returns to their owners through a range of mechanisms, including: rebates, discounts, and line charge holidays; or through dividends. In the relevant existing input methodologies these 'discretionary discounts and customer rebates' (as opposed to posted discounts, which are not discretionary once posted) are not treated as a tax deductible expense for the purposes of calculating tax costs. We consider that this approach is appropriate because of the difficulty of verifying forecasts of rebating practices for default price-quality paths.

Chapter Three: Responses to particular topics raised in submissions

Purpose of this chapter

30. This chapter provides responses to the following topics raised by submitters during consultation:
 - 30.1 The definition of forecast inflation that is applied when asset revaluations are calculated;
 - 30.2 The appropriate treatment of changes in Goods and Services Tax when assets are revalued;
 - 30.3 The revaluation rate(s) that would be applied if default price-quality paths are reset under s 54K(3);
 - 30.4 The average asset life that is applied when depreciation is calculated; and
 - 30.5 The approach to determining the value of commissioned assets.
31. Responses to other points raised in submissions are set out in Attachment A.

Definition of forecast inflation that is applied when asset revaluations are calculated

32. The input methodologies apply the following definition of 'forecast CPI' to forecast future asset revaluations:
 - 32.1 For the years covered by the Reserve Bank's inflation forecast, the forecast of annual changes in the CPI that are contained in the Reserve Bank's forecast is applied; and
 - 32.2 For all other years, the forecast will move in three equal steps to the mid-point of the Reserve Bank's inflation target, ie, the value applying from the start of the third year will be equal to the mid-point of the target range.²²
33. Our approach combines forecasts from a reputable forecaster that is extended using a simple and transparent rule for periods beyond the last available forecast. More accurate forecasting of inflation over long (and short) periods is difficult.

²² The mid-point of the target range is currently 2%, between a lower limit of 1% and an upper limit of 3%.

Worked example of forecast inflation

34. Table 1 below sets out an example of how forecast CPI is calculated. In years three to five the forecast converges towards 2%, which is the mid-point of the Reserve Bank target range.

Table 1: Illustrative calculation of forecast CPI for regulatory period of five years

Regulatory period	Data source or calculation	Forecast change in CPI
Year 1	Reserve Bank forecast	3.0%
Year 2	Reserve Bank forecast	2.5%
Year 3	$2.5\% - (2.5\% - 2\%) / 3$	2.33%
Year 4	$2.33\% - (2.33\% - 2\%) / 3$	2.17%
Year 5	$2.17\% - (2.17\% - 2\%) / 3$	2.00%

Source: Commerce Commission.

Note: For illustrative purposes, all figures are expressed as annual percentages and rounded to two decimal points.

Our draft decision and the views of submitters

35. Our draft decision proposed to calculate ‘forecast CPI’ beyond the term of the Reserve Bank’s forecast using the arithmetic average of the final year of the Reserve Bank’s forecast. We also proposed to cap the forecast at the upper and lower bound of the target range.
36. The ‘forecast CPI’ definition in our draft decision received support from some, but not all, submitters. For example, Vector supported the definition we proposed in the draft decision, and other submitters previously expressed support for a similar definition that applies to customised price-quality path proposals.²³ However, PwC (on behalf of Powerco), and the Electricity Networks Association argued different approaches should be considered, as further discussed in paragraphs 40-43 below.

The definition has changed from our draft decision

37. We have updated our draft decision after considering submissions. We also note the recent change in monetary policy. From 20 September 2012, the Reserve Bank Governor is subject to a new Policy Targets Agreement with “a focus on keeping

²³ Vector, *Submission to Commerce Commission on Draft Input Methodologies for Default Price-Quality Paths*, 6 July 2012, paragraph 30. See also: Electricity Network Association, *Submission 8 valuation of IM, roll forward of RAB*, 20 August 2010, paragraph 72.

future average inflation near the 2 per cent target midpoint” of the 1% to 3% target range.²⁴

38. The draft decision was informed by the existing Policy Targets Agreement for the Reserve Bank.²⁵ While there was not time to consult on the implications of the new Policy Targets Agreement for these input methodologies, it lends support to the view that the mid-point of the Reserve Bank’s range is an appropriate long-term reference point.
39. The mid-point of the Reserve Bank’s target is therefore the value to which our forecast CPI will move in three equal steps, ie, the value applying from the start of the third year will be equal to the mid-point of the target range.²⁶ This approach assumes that:
- 39.1 there are no shocks to inflation after the end of the Reserve Bank’s forecast period; and
- 39.2 any monetary policy that the Reserve Bank may undertake results in inflation moving to the mid-point of the target range after two years, before remaining constant at that level.²⁷

Responses to submissions on CPI forecasting

40. Submissions by the Electricity Networks Association and PwC (on behalf of Powerco) provide support for our approach. Their submissions were made before the changes in Policy Targets Agreement.
41. The Electricity Networks Association suggested that for the period for which no forecasts are available we investigate approaches whereby after some time inflation moves to a measure of average inflation.²⁸

²⁴ Reserve Bank New Zealand, *Policy Targets Agreement*, www.rbnz.govt.nz/monpol/pta/4944826.pdf, 20 September 2012.

²⁵ The new Policy Targets Agreement did not apply at the time we set the 2010-15 default price-quality paths for electricity distribution services. Applying the new definition of forecast CPI for the potential reset of those paths under s 54K(3) therefore may not be entirely consistent with the inflation expectations that prevailed at the time the weighted average cost of capital (WACC) was determined. However, this decision will be in favour of suppliers to the extent that inflation expectations were higher than they would have been if the change in monetary policy had been implemented earlier.

²⁶ The mid-point of the target range is currently 2%, between a lower limit of 1% and an upper limit of 3%.

²⁷ Evidence on the time it takes for a monetary policy change to have an effect is not conclusive but a ‘rule of thumb’ for the length of monetary policy transmission mechanism is between one and two years. For a discussion of the transmission lag, see Rishab Sethi, *The changing transmission mechanism of New Zealand monetary policy*, Reserve Bank of New Zealand: Bulletin, Vol. 71, No. 2, June 2008.

42. PwC (on behalf of Powerco) submitted we should use the mid-point of the Reserve Bank's target range for years in which a forecast is not available.²⁹ We consider that our approach results in a more appropriate forecast than an immediate reversion to the mid-point as suggested by PwC.
43. We have not adopted NZIER forecasts, which PwC (on behalf of Powerco) and the Electricity Networks Association suggested. Neither submitter provided evidence that shows why NZIER's approach would result in more accurate forecasts.³⁰ In addition, we consider that the Reserve Bank provides a robust forecast, and the use of this forecast has been supported by submitters previously (including Powerco and the Electricity Networks Association) and in this context (by Vector).³¹

CPI used for asset revaluations excludes the impact of changes in Goods and Services Tax

44. The definition of inflation that we apply when revaluing regulated assets excludes the impact of changes in Goods and Services Tax (GST). This is consistent with the approach that must be applied in customised price-quality path proposals, and under information disclosure regulation.
45. Unison has argued that, because the price of goods and services has increased as a result of the 2010 increase in GST, the purchasing power of each supplier's investment will have been reduced. In particular, Unison argued that:³²

As we see it, in real financial capital maintenance terms on 30 September 2010 an EDB could sell \$100 of RAB assets and buy \$100 of goods and services, but on 1 October 2010 (unless the RAB is indexed by the GST-component of CPI inflation) that same

²⁸ Electricity Networks Association, *Submission on Draft Input Methodologies for Default Price-Quality Paths: Consultation Paper*, 6 July 2012, paragraphs 71-72.

²⁹ Powerco, *Draft Input Methodologies for Default Price-Quality Paths Consultation Paper*, 6 July 2012, paragraphs 34-35; and PwC (on behalf of Powerco), *Draft Input Methodology for Default Price-Quality Paths – Inflation Issues*, pages 9 to 12.

³⁰ PwC (on behalf of Powerco) suggested that the draft decision approach could result in undue weight being given to transitory factors reflected in the last year of the Reserve Bank's forecast. Forecasting inflation several years into the future with any degree of precision is not possible and these criticisms might apply to other forecasts as well. PwC also suggested that the Reserve Bank forecasts are highly variable from year to year. However, variability in forecasts is not an indicator of the quality of a forecast. For example, the Reserve Bank's forecast made in September 2009 for the following two years was 1.4 % and 2.5% respectively, a movement of almost 1 percentage point. This forecast change is similar to NZIER's September 2009 forecast, which was 0.9% for 2010 and 1.9% for 2011. In the event, actual inflation moved from 0.9% in 2010 to 2.4% in 2011. (The CPI figures are those published by the Reserve Bank and exclude the impact of GST, which was not anticipated at the time of the 2009 forecasts).

³¹ The NZIER's forecast extends four years ahead, compared to the Reserve Bank's current forecast term of two years. Therefore, because regulatory periods are between four and five years in length, the use of the NZIER's forecast would not resolve the need to extend a forecast beyond its term.

³² Unison *Submission on Draft Input Methodologies for Default Price-Quality Paths*, 6 July 2012, pages 4-6.

\$100 of RAB would only buy \$98 of goods and services, since all other goods and services increased in price by 2%.

46. However, an individual that is GST registered faces the same price for goods and services before and after a tax change. In addition, in our view, it is not the role of the regulator to shield suppliers (or consumers or investors) from the impact of fiscal policy.³³ To the extent that an individual or entity is not GST registered, it should pay the tax as intended by the policymaker.

Issues related to asset revaluations if default price-quality paths are reset under s 54K(3)

47. We received one submission on the proposed treatment of asset revaluations that raised issues that were specifically related to the approach we would apply if we exercised our discretion to reset default price-quality paths under s 54K(3) of the Commerce Act 1986, ie, the potential mid-period reset of the default price-quality paths applying to electricity distribution services.³⁴

Adjustment for forecast inflation is consistent with the date of the WACC determination

48. One issue that was raised in relation to s 54K(3) was whether, because the reset would occur mid-period, we should assess each supplier's costs by revaluing each supplier's assets:
- 48.1 using actual inflation for years that it is known; or
 - 48.2 using the forecast of inflation that was most recently available when the cost of capital was determined in September 2009.
49. Our decision applies the forecast of inflation in September 2009. This is because the nominal cost of capital that we are required to apply reflects investor expectations prior to the start of the regulatory period. The September 2009 forecast of inflation is the most recent available prior to the cost of capital being determined.
50. PwC (on behalf of Powerco) argued in its submission that we should revalue the regulatory asset base using actual inflation figures for the years in which they are

³³ In workably competitive markets, changes in taxes continuously affect the value of business assets. This effect can be direct if the tax applies to the revenue generated by the asset. It can also be indirect if the revenue generated by assets changes because a tax on consumers' disposable income changes the amount of disposable income consumers can spend on the goods and services.

³⁴ Similar issues would be likely to arise if a default price-quality path was reset under s 53X of the Commerce Act 1986.

known.³⁵ However, such an approach would be inconsistent with inflation expectations at the time the cost of capital was determined.³⁶

Forecast asset revaluations will track annual changes in the forecast inflation index

51. The input methodologies that apply to default price-quality paths require that asset revaluations track the annual movements in the forecast inflation index. Consequently, the forecast percentage change is likely to be different in each year of the regulatory period.
52. PwC (on behalf of Powerco) proposed that an average rate of inflation be applied in each year.³⁷ Under this approach, assets would be revalued at a constant rate throughout the regulatory period. PwC argued that the averaging approach would be consistent with targeting a constant 'real' rate of return in each year of the regulatory period.
53. Relative to applying a constant revaluation rate, our preferred approach will more accurately reflect the annual changes in asset values, due to inflation-indexation, that would have been forecast at the time the cost of capital was determined. In our view, this forecast provides the appropriate basis to assess the amount of revenue that a supplier requires from a particular point in time forward.
54. In addition, we have never intended to target a constant real rate of return in each year of the regulatory period.³⁸ Rather, we calculate the revenue required over a particular period by treating annual revaluation gains over that period as income.

Average asset life used to calculate depreciation

55. Depreciation will be calculated by applying an average asset lifetime assumption to an aggregate opening RAB value each year. However, we intend to apply different asset lifetime assumptions depending on whether the assets are:³⁹

³⁵ Refer: PwC submission (on behalf of Powerco), *Draft Input Methodology for Default Price-Quality Paths – Inflation Issues*, 6 July 2012, page 3.

³⁶ Nevertheless, the input methodologies for information disclosure regulation require that the RAB value is indexed by a GST-exclusive measure of actual inflation during the regulatory period, and that indexed RAB value will be used when the price path is reset at the beginning of the next regulatory period.

³⁷ PwC (on behalf of Powerco), *supra* n 35, pages 6-8.

³⁸ Further to this, annual variations in 'real' returns are inevitable. This is because cost recovery is smoothed when the price path is indexed. For default price-quality paths, the indexation of prices is of the form 'CPI-X' (where X is a percentage differential known as the 'X factor').

³⁹ Vector, *Submission to Commerce Commission on Additional DPP IMs Issues Paper*, 27 January 2012, paragraph 57.

- 55.1 already in the RAB for the base year, in which case the average asset lifetime will be calculated by dividing the total opening RAB value in that disclosure year by total depreciation in that year; or
- 55.2 forecast to be commissioned, in which case the average lifetime will be assumed to be 45 years (from the year of commissioning). We consider that 45 years is a reasonable value for both electricity distribution services and gas pipeline services as it represents a balance of standard physical asset lives.⁴⁰
56. Table 2 sets out categories of assets that would typically be included in a supplier's RAB and the corresponding range of scheduled lives.

Table 2: Example of scheduled asset lives from existing input methodologies⁴¹

Scheduled life	Electricity	Gas
Less than 45 years	<ul style="list-style-type: none"> • Switchgear (range of 35, 40, 45 and 55 years) 	<ul style="list-style-type: none"> • Station equipment (35 years)
45 years	<ul style="list-style-type: none"> • Transformers • Distribution lines - wooden poles 	-
More than 45 years	<ul style="list-style-type: none"> • Cables (range of 45, 55 and 70 years) • Distribution lines - concrete poles (60 years) • Buildings (70 years) 	<ul style="list-style-type: none"> • Pipelines (range of 60, 70 and 80 years)

57. Suppliers generally supported the use of an average asset lifetime assumption to calculate depreciation.⁴² We also agreed with submissions that the average asset lifetime should be reduced by one in each year of the analysis.⁴³

⁴⁰ Although the weighted average physical asset lives for gas transmission and distribution businesses (for new assets) may be greater than 45 years, in some circumstances their economic lives may be lower than the physical asset lives. As this assumption only applies to a small percentage of the regulated asset value (ie, assets forecast to be installed during the default price-quality path regulatory period), 45 years is considered appropriate given the low materiality of this assumption.

⁴¹ These examples are taken from Schedule A of the respective existing input methodologies.

⁴² Refer: Vector, *Submission to Commerce Commission on Draft Input Methodologies for Default Price-Quality Paths*, 6 July 2010, page 11. Vector argued that suppliers should be allowed to apply shorter asset lives for non-network assets, because these assets on average have a shorter asset lifetime than 45 years. However, the assumption of 45 years was selected as an average across all assets. We recognise that

Impact of an average asset lifetime assumption on the expected recovery of investments

58. In response to our draft decision, two submitters argued that the approach we proposed for depreciation was inappropriate because suppliers will not expect to earn a full return *on and of* invested capital over the asset's lifetime, ie, investments will have a net present value (NPV) of less than zero. These submitters have argued that we should revalue assets before we calculate depreciation.⁴⁴
59. The issue that these submitters identified is easily addressed when depreciation and revaluations are applied to assets individually. This is because the revaluation rate that is applied to each individual asset can be adjusted in the year in which the asset becomes fully depreciated; in particular, the revaluation rate can be set to nil for the particular assets in that year.⁴⁵
60. An 'end of life' adjustment is therefore applied to individual assets when revaluations are calculated for customised price-quality path proposals, and under information disclosure regulation. However, the input methodologies for default price-quality paths apply to assets in aggregate so the same approach cannot be taken.

Adjustment for assets that will become fully depreciated

61. In response to submissions, we have included an aggregate 'end of life' adjustment term when calculating aggregate RAB revaluations in each year. This means that for assets that existed in the base year we multiply the opening RAB value for those assets in each year by 0.999 before calculating revaluations, on the assumption that 0.1% of the opening RAB value would be affected by the 'end of life' adjustments that are applied to assets individually under information disclosure regulation.
62. The size of the 'end of life' adjustment was calculated based on the adjustment terms that are likely to be applied to assets individually. The size of the 'end of life' adjustment at the aggregate level reflects:

certain types of assets will have shorter lives, and other assets will have longer lives. Clearly, it would be inappropriate to vary the lifetimes for the shorter-lived assets, but not for the longer-lived assets.

⁴³ PwC (on behalf of Powerco), *Additional Input Methodologies for Default Price-Quality Paths: Process and Issues Paper Appendix 2*, 26 January 2012, page 26.

⁴⁴ Vector, *supra n 42*, pages 10-11; and Wellington Electricity, *Draft Input Methodologies for Default Price-Quality Paths Consultation Paper*, 6 July 2012, page 3.

⁴⁵ Revaluation gains are treated as income for the purposes of resetting prices. Consequently, setting the revaluation rate to nil means that suppliers will be assessed as requiring higher revenues through regulated prices in order to be able to earn a normal return.

- 62.1 the proportion of assets in the RAB that become fully depreciated in each year; and
- 62.2 the proportion of the RAB value that is likely to be remaining at the start of the year in which each asset becomes fully depreciated.
63. In summary, the size of the 'end of life' adjustment at an aggregate level is likely to be small, ie, less than 0.1% of the aggregate RAB value.⁴⁶ In addition, the likely impact on building blocks allowable revenue each year is found by multiplying the adjustment term by the revaluation rate (of about 2%). The impact on the expected NPV of investments is therefore likely to be even smaller.
64. We do not support the approach proposed by submitters that involves revaluing assets before they are depreciated. This approach is inconsistent with the existing input methodologies that are applied to customised price-quality path proposals, and to information disclosure requirements.

Valuation of commissioned assets

65. Commissioned assets will be valued using an indexed historic cost approach.⁴⁷ This approach is consistent with equivalent provisions in the existing input methodologies for customised price-quality paths, and information disclosure regulation. The reasons for using an indexed historic cost approach are set out in the December 2010 *Input Methodologies Reasons Paper*.⁴⁸
66. For default price-quality paths, we have simplified the indexed historic cost approach in the existing input methodologies by:

⁴⁶ For example, because the average asset lifetime is 45 years, we have assumed that 1/45th of the assets in the asset base become fully depreciated each year. We have also assumed that 1/90th of the replacement cost of the asset would be likely to remain at the start of the year in which the asset becomes fully depreciated. This is because: (a) assets are likely to be retired at a constant rate throughout the year, ie, on average, half a year of the asset's physical life is likely to remain for assets that become fully depreciated during the year; and (b) the average asset lifetime assumption would otherwise imply that approximately 1/45th of the asset's replacement cost would remain. 0.5 multiplied by 1/45th gives 1/90th, which multiplied by the assumed proportion of assets that become fully depreciated each year is 1/4050th (or 0.025%) of the replacement cost of the entire RAB. On the basis that, due to depreciation, the RAB value is likely to be around one half of the replacement cost of the RAB, then each year 0.05% of the opening RAB value will reach the end of its useful life each year. We have rounded this value up to allow for some variation in the underlying assumptions. We also note that suppliers are likely to benefit significantly in NPV terms from an average asset life assumption. This is because we do not reduce the average depreciation rate to reflect assets leaving the asset base. Consequently, depreciation will be higher than it would be if assets were valued individually.

⁴⁷ This treatment has been clarified by confirming the application of GAAP when determining the forecast value of commissioned assets.

⁴⁸ Commerce Commission, *supra* n 4, page 85.

- 66.1 equating the specified value of commissioned assets to capital expenditure;⁴⁹
and
- 66.2 including a definition for capital expenditure that is consistent with that for information disclosure and customised price-quality paths.⁵⁰
67. A number of submitters criticised how we had specified the value of commissioned assets in our draft decision on the asset valuation input methodology.⁵¹ For instance, Vector considered it did not meet the requirements of s 52T(2) as regulated suppliers were unable to “understand how to determine or calculate what their asset valuation will be”.⁵² In Vector’s opinion, the draft asset valuation input methodology also did not meet the interpretation of those requirements as outlined by the Court of Appeal.⁵³
68. Vector’s submission essentially asks the Commission to include a methodology for forecasting capital expenditure on assets in the asset valuation input methodology. However, in our view that is properly a matter for the default price-quality path reset itself. What the asset valuation input methodology for default price-quality paths is required to do is specify our approach to asset valuation, which it does: an indexed historic cost valuation approach.⁵⁴

⁴⁹ Unlike the existing input methodologies, the asset valuation methodology for default price-quality paths therefore does not include specific rules for finance during construction, ie, compensation for costs incurred as a result of the delay between the date of expenditure and the date of asset commissioning. However, equating the value of commissioned assets to capital expenditure can be expected to result in an outcome that is approximately NPV-equivalent for suppliers, and avoids having to forecast commissioning dates, and as a consequence is an appropriate simplification for default price-quality paths.

⁵⁰ The forecast of capital expenditure will be determined by the Commission. This is consistent with the input methodologies for customised price-quality path proposals, albeit with no evaluation criteria for assessing the efficiency of that expenditure, under the s 52T(1)(d)(ii) input methodology for customised price-quality path proposals.

⁵¹ A similar issue was raised by submitters in relation to the forecast of asset disposals.

⁵² Vector, *Submission to Commerce Commission on Draft Input Methodologies for Default Price-Quality Paths*, 6 July 2012, paragraph 21.

⁵³ In *Commerce Commission v Vector Limited* [2012] NZCA 220 at paragraph 54, the Court said that: “[T]he Commission must give sufficient detail in the input methodology to enable a regulated firm to understand how it applies to its operations in respect of the matter with which it deals.”

⁵⁴ Notably, the rules around capital expenditure forecasts, information, verification, or evaluation requirements for customised price-quality path proposals are not part of the asset valuation methodology for customised price-quality path proposals (as these are separately provided for under ss 52T(1)(d)(i) and (ii)). Likewise, there is a distinct statutory provision for a capital expenditure input methodology for Transpower (s 54S).

Attachment A: Summary of submissions and changes to the draft input methodologies

Purpose of this attachment

69. This attachment sets out:
- 69.1 other points raised in submissions as part of consultation on the draft input methodologies; and
 - 69.2 our response to submissions, a description of changes made to the draft input methodologies in light of submissions, and our reasons for those changes.
70. We have also summarised separately the key changes we have made to the draft input methodologies for clarification, simplification, or other purposes.

Summary of key submissions

71. Table 3 below summarises the key submissions received from interested parties and provides our responses and reasons for changes made to the draft input methodologies. Unless otherwise specified in the table, changes made to the draft input methodologies have been made consistently for all three types of service.

Table 3: Key submissions and changes to draft input methodologies

Topic and submitters' views	Commission's response
<p>Cost allocation</p> <p>1. ENA (paras 43-45), Powerco (paras 5 and 14) and PwC (para 19) submitted that the requirement for consistency of operating cost allocation with that disclosed under an ID determination should be clarified with respect to information disclosed for a 'base year'.</p> <p>2. ENA (para 46) submitted that the wording of clause X4.1.1(2) should be made more specific so as to apply to assets forecast to be commissioned after the 'base year'.</p>	<p>a) We agree with submitters that the consistency of operating cost allocations should be specified in relation to a specific disclosure year.</p> <p>b) We agree with submitters that the allocation of forecast aggregate value of commissioned assets should apply to forecast assets.</p> <p>We have altered clause X4.1.1 of the draft input methodologies to refer to a 'base year' for allocating forecast operating costs, and to make reference to 'additional assets' in the in the case of asset allocations. The drafting has also been made consistent with that applying to CPPs.</p>
<p>Cost allocation thresholds</p> <p>3. Genesis (pp. 2-3) submitted that the thresholds for applying ACAM are too low and should be altered in order to avoid harmful cross-subsidisation of costs.</p> <p>4. Vector (paras 4-6) cross submitted that the cost allocation rules have already been addressed by the Commission and should not form part of the</p>	<p>c) We consider that the existing thresholds determined for applying ACAM are appropriate.</p> <p>No changes have been made to the draft input methodologies.</p>

consideration for DPP IM drafting.	
<p>Roll-forward of RAB values</p> <p>5. ENA (paras 50-51) submitted that the closing RAB value included in clause X4.2.1(3) and (4) should not be used as the starting point for the RAB roll-forward formula and the reference should be to the opening RAB of the 'base year'.</p> <p>6. ENA (para 52) submitted that the limitation in clause X4.2.1(4) of the relevant definition to subsection (3) should be removed.</p>	<p>d) We agree that references to RAB values for existing assets should be defined relative to a 'base year'.</p> <p>We have altered clause X4.2.1 of the draft input methodologies to refer to values determined for a base year, and have also clarified the application to existing assets and additional assets.</p>
<p>Forecasts of disposed assets</p> <p>7. Vector (para 23) submitted that the wording of clause X4.2.5 is unclear as to whether the forecast of disposed assets is the EDB's or the Commission's.</p>	<p>e) The wording has been changed to address submitter's concerns, including clarifying that the forecast value will be "as determined by the Commission".</p> <p>We have amended clause X4.2.5 of the draft input methodologies to clarify the intended treatment.</p>
<p>Definition of 'regulatory profit/(loss) before tax'</p> <p>8. ENA (paras 59-60), Powerco (paras 23-24) and PwC (paras 26-27) submitted that the 'regulatory profit/(loss) before tax' should be calculated for forecast periods in accordance with the relevant CPP input methodologies (with suitable definitions added to the input methodologies) rather than using the amount disclosed under an ID determination.</p>	<p>f) The intention was that the <i>formula</i> which specifies 'regulatory profit/(loss) before tax' for a disclosure year selected by the Commission would be applied for default price-quality path purposes, not that the disclosed amount of 'regulatory profit/(loss) before tax' would be used, .</p> <p>We have changed clause X4.3.1(4) of the draft input methodologies to include the relevant formula to be used to determine 'regulatory profit/(loss) before tax' and we have included a definition for 'other regulated income' referred to in that formula in clause 1.1.4(2), consistent with the definition for customised price-quality paths.</p>
<p>Permanent and temporary tax differences</p> <p>9. ENA (para 58), PwC (para 25) and Vector (paras 6, 38-39) submitted that forecast permanent and temporary tax differences should be kept at a level the same (in real terms) as in a 'base year'.</p> <p>10. Powerco (paras 6, 19-22) submitted that permanent differences should be kept the same as the base year or the average of the previous 4 years.</p> <p>11. Vector (paras 40-42) submitted that the effect of new elective tax rules on the treatment of capital contributions should be considered.</p>	<p>g) An analysis of the permanent differences in prior years (2008-2011) indicates that the majority relates to the treatment of capital contributions, for which as Vector notes, are now subject to elective tax rules. Projecting differences relative to those existing in the base year assumes, contrary to this, that their nature and level remain constant.</p> <p>h) Our decision is that the most appropriate simplifying assumption to adopt is that permanent and temporary differences are nil over the forecast period, other than those specific adjustments provided for in the input methodologies.</p> <p>i) As capital contributions are not included in the</p>

	<p>adjustments provided for in the input methodologies it is not necessary to prescribe a particular treatment for them.</p> <p>No changes have been made to the draft input methodologies.</p>
<p>Forecast disposals for tax purposes</p> <p>12. PwC (para 28) submitted that forecast disposed assets for tax purposes should be included consistent with their suggested treatment for forecast regulatory asset disposals.</p> <p>13. Vector (paras 37 and 43) submitted that a value for forecast tax disposals should be included in the tax asset value roll forward formula in clause X4.3.5(3)(c) calculated by taking the base year value adjusted by the change in RAB value over the forecast period.</p>	<p>j) We have not included a forecast of the tax value of asset disposals given that their value is likely to be materially lower than the corresponding RAB value of forecast disposed assets (if any). It is also offset by the use of an average asset lifetime for calculating depreciation.</p> <p>No changes have been made to the draft input methodologies.</p>
<p>Opening investment value</p> <p>14. ENA (para 61), Vector (para 43) and WELL (p. 4) noted that the term 'opening investment value' used in the formula for 'notional deductible interest' is not defined, and should be made consistent with other input methodologies definition of 'regulatory investment value' used in CPP input methodologies.</p>	<p>k) We agree with submitters that a definition of opening investment value is required. It was inadvertently omitted from the draft input methodologies and has now been reinstated.</p> <p>l) As noted below, we are currently consulting on amendments to the CPP input methodologies in relation to cash flow timing effects of various building block components, including the effect of asset acquisitions and disposals.</p> <p>We have altered clause X4.3.3 (EDBs and GDBs) and X4.3.4 (GTBs) of the input methodologies to include a definition of 'opening investment value' defined as being equal to the total opening RAB value (and, for EDBs and GDBs, the relevant deferred tax balance).</p>
<p>Remove 'change in deferred tax' clause</p> <p>15. ENA (paras 41 and 62) and Vector (para 43) submitted that draft clause X4.3.6 which defines 'change in deferred tax' is redundant and should be removed.</p>	<p>m) We agree with the submitters.</p> <p>We have removed clause X4.3.6 from the draft input methodologies for EDBs and GDBs.</p>
<p>Consistency of 'initial difference in asset values' with CPP input methodologies</p> <p>16. ENA (para 73) submits that the inclusion of the defined term 'initial difference in asset values' be made consistent between DPP input methodologies and CPP input methodologies.</p>	<p>n) We agree with submitters, and consider that the relevant definition should be that prescribed in Part 2 for information disclosure (which happens also to be consistent with that for CPP).</p> <p>We have altered the definition of initial differences in asset values for EDBs and GDBs (see clause X4.3.3(5)) to refer to that in accordance with input methodologies in Part 2.</p>
<p>Initial difference in asset values for assets sold or acquired</p> <p>17. Vector (para 43) submitted that it is unclear whether the reference in clause X4.3.3(4) covers only assets that are acquired or sold to other regulated</p>	<p>The amendment made to clause X4.3.3(5) above has aligned the definition to the treatment for ID and CPPs.</p>

suppliers.	
<p>Term credit spread differential</p> <p>18. ENA (para 67) and Vector (para 46) submitted that the calculation of the TCSD should be set to a nil value if it would otherwise be negative.</p> <p>19. Powerco (paras 7, 36-51) submitted that the ‘floor’ in the TCSD calculations should be increased to 0.175%, or, if not, then the TCSD should be set to nil if it would otherwise be negative.</p> <p>20. PwC (para 29) supported the approach in the draft Input methodologies.</p> <p>21. Vector (paras 47-48) submitted that if a term of 10 years was set for the cost of debt and cost of equity then no TCSD would be necessary.</p>	<p>o) We agree with submitters that the TCSD should be set to a nil value if it would otherwise be negative.</p> <p>We have altered clause X4.4.10 (now clause 4.1.9) in the draft input methodologies.</p>
<p>Consistency of wording with other Input methodologies</p> <p>22. ENA (paras 11, 23, 31-38) submitted that more consistency between the wording of the DPP Input methodologies and the existing Input methodologies for ID and CPPs is required. A number of specific examples were referred to in their submission and included in their marked-up drafting in their submission Appendix.</p>	<p>p) We acknowledge the point raised by ENA.</p> <p>We have altered relevant clauses in the draft Input methodologies to ensure consistency with the wording of the relevant existing ID and CPP input methodologies where possible.</p>
<p>Treatment of periods that are not 12 month periods</p> <p>23. ENA (para 42) submitted that proposed clause X4.6.1 which addresses partial year methods is unnecessary for EDBs and should be removed.</p> <p>24. Powerco (paras 25-26) supported the inclusion of the partial roll forward provision although submitted that further information on methods of apportionment should be included in the Reasons Paper for DPP Input methodologies.</p> <p>25. PwC (para 30) and Vector (paras 49-50) submitted that it is unnecessary for all regulated entities and should be removed. Vector submitted that if it is to be retained then the Commission should specify in further detail how this</p>	<p>q) Catering to multiple scenarios is required because we cannot know every situation for future DPPs.</p> <p>r) Consistent with Powerco’s suggestions, we have amended the draft Input methodologies to indicate the nature of the necessary modifications that may be made.</p> <p>s) We have also amended the clause to clarify that the modifications may be required where the <i>start date</i> or end date of a disclosure year is not aligned with the <i>start date</i> or end date of a DPP period.</p> <p>We have altered Subpart 6 of the draft input methodologies to clarify the circumstances and extent to which necessary modifications to existing Input methodologies may be made by the Commission.</p>

will be applied.	
<p>Remove redundant definitions</p> <p>26. ENA (paras 12, 39-40, 69) and Vector (para 54) submitted that defined terms such as ‘post-tax return on capital’, ‘return of capital’, ‘TF_{other income}’, ‘TF_{revenue}’, TF_{tax} and ‘other regulated income’ are not required to be defined for the DPP Input methodologies and should be removed.</p>	<p>t) We agree with the submitter’s suggestions.</p> <p>We have removed the defined terms from the draft input methodologies.</p>
<p>Use of AMPs for forecast capex</p> <p>27. ENA (paras 54-57) submitted that we should use AMPs with a real inflator for commissioned assets.</p> <p>28. WELL (page 5) supports ENA’s position and submitted we should use 2010 AMPs for capex forecasts.</p> <p>29. GasNet (page 2) submitted that the asset valuation IM retains too much discretion for the Commission to choose capex forecast data. GasNet submitted that capex forecasts should be drawn from AMPs.</p>	<p>u) While we agree with Jeff Balchin’s assertion that “the task of assessing capital expenditure is one of the more complex tasks for a regulator when applying the building blocks approach”, we do not agree with supplier’s proposals that we should rely entirely on their own forecasts of capital expenditure. This is because relying on supplier’s own forecasts provides an incentive for suppliers to artificially inflate their forecast to secure a higher starting price.</p> <p>v) However, we would expect to have regard to suppliers’ forecasts (among other relevant things) when reaching our own view on the appropriate amount of forecast capital expenditure.</p> <p>No changes have been made to the draft input methodologies.</p>
<p>Inclusion of a SPA IM</p> <p>30. ENA (para 15), GasNet (page 3), PwC (page 2), Unison (paras 3-8) and Vector (paras 10-16) submitted that we should include a SPA IM.</p>	<p>w) We have not included a specific input methodology for setting starting prices (a “SPA IM”). We have not changed our position from the 15 June 2012 <i>Draft Input Methodologies Consultation Paper</i>, and are only re-determining Decisions 710, 711, and 712 to the extent ordered by the Court.</p> <p>No changes have been made to the draft input methodologies.</p>
<p>Cash flow timing</p> <p>31. WELL (pages 4-5) and Vector (para 6) submitted that provision for cash flow timings should be incorporated into the DPP Input methodologies. WELL (page 4) submitted that this is required before they can assess the draft tax IM, and that year-end timing assumptions should be applied.</p>	<p>x) Decisions reached on appropriate timing assumptions to apply will be given effect through the calculation of building blocks allowable revenue, not through the calculation of individual building block components for cost allocation, asset valuation and the treatment of taxation.</p> <p>Consistent with the existing input methodologies for cost allocation, asset valuation, and the treatment of taxation applying to ID and CPP regulation, no specific timing assumptions have been included in the equivalent input methodologies applying to DPPs.</p>

Other changes to the draft input methodologies

72. Other key changes we have made to the draft input methodologies for clarification, simplification, or other purposes are:
- 72.1 Consistent with the input methodologies for information disclosure, and customised price-quality path proposals, we have added a clause X4.2.4 to clarify the treatment of revaluations during profitability assessments. This corrects an oversight in our draft determination, which did not give effect to statements made in Chapter 3 of the draft reasons paper (nor to our overall approach to the treatment of revaluations, which is explained in the *Input Methodologies Final Reasons Paper*).
 - 72.2 Amendments have been made to the draft input methodologies to clarify that certain 'base year' amounts are to be calculated in accordance with the relevant Part 2 input methodologies (which apply to information disclosure regulation) rather than under information disclosure requirements. Where information necessary to make the calculations has not been disclosed by the supplier, then Subpart 7 allows the Commission to rely either on information disclosed under an information disclosure determination, prior information disclosure requirements, or information obtained under a s 53ZD request. The information may be used by applying such assumptions or modifications that are reasonably necessary in light of the nature of the calculations or the information available.
 - 72.3 A transitional provision has been added as Subpart 8 of the draft input methodologies for gas distribution businesses which clarifies that Powerco's 'disclosure years' and 'base year' are treated as having a 30 June year-end (Powerco's former company balance date) for the purposes of the first default price-quality path regulatory period. Powerco has recently changed its balance date, and will report under future information disclosure regulation with a year-end of 30 September.

Attachment B: Amendment to the cost of capital for a term credit spread differential allowance

Purpose of this attachment

73. This attachment provides an overview of, and reasons for, the amendment to the cost of capital input methodology for the weighted average cost of capital to allow for a term credit spread differential allowance.

Amendment for estimating term credit spread differential allowance

74. The amendment sets out how to estimate the additional financing costs that can be incurred by individual suppliers when issuing debt for a longer term than that assumed by the input methodology for the weighted average cost of capital, ie, the 'term credit spread differential allowance'.
75. The amendment to what was clause 4.1.9(2) of the existing input methodologies:
- 75.1 Applies the term credit spread differential allowance estimated by the cost of capital input methodology for information disclosure regulation (ie, the value already disclosed in a disclosure year, if available, or obtained from a s 53ZD notice, or determined by the Commission on the basis of information about qualifying debt issues disclosed by the supplier).
- 75.2 Indexes that value in each year of the regulatory period by changes in the forecast total opening RAB value during the regulatory period relative to the total opening RAB value in the base year.
- 75.3 Sets the term credit spread differential allowance to zero if the estimate is negative.

Response to submissions

76. Submitters generally agreed with the proposed amendment; both in its intent and the logic of the calculation.⁵⁵ However, some submitters suggested changes to address the potential for negative values to be produced by the calculation. Powerco suggested setting a floor to prevent negative values, whilst other submitters suggested any negative values be taken at zero.⁵⁶

⁵⁵ For example: PwC, *Submission to the Commerce Commission on Draft Input Methodologies for Default Price-Quality Paths: Consultation Paper*, 6 July 2012, paragraph 29; and Electricity Networks Association, *Submission on Draft Input Methodologies for Default Price-Quality Paths: Consultation Paper*, 6 July 2012, paragraph 66.

⁵⁶ For example: Powerco, *Submission on Draft Input Methodologies for Default Price-Quality Paths Consultation Paper*, 6 July 2012, paragraph 41; and Vector, *Submission to Commerce Commission on Draft Input Methodologies for Default Price-Quality Paths*, 6 July 2012, paragraph 46.

77. We agree with submitters that we should set a floor of zero for the term credit spread differential allowance. This is broadly consistent with the approach adopted for customised price-quality path proposals, where the inclusion of the term credit spread differential allowance is voluntary (and suppliers would be unlikely to claim the allowance if it was negative).