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Compliance Requirements for the Default Price-Quality Paths for Gas Pipeline Services

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CONTENTS

1. Introduction

Purpose

1.1 This paper provides an overview of the compliance requirements that are set out in the determinations for the default price-quality path for gas pipeline services.[1] It should be read together with the determinations, and the reasons paper that we published alongside those determinations.[2]

1.2 This paper is not intended to be a substitute for the determinations. In the event of an inconsistency between this paper and the determinations, the wording in the determination prevails.

Compliance with the default price-quality path determination

1.3 On 28 February 2013, we determined a default price-quality path for each supplier of gas pipeline services. Each default price-quality path specifies a maximum price (or revenue) constraint, as well as minimum standards for service quality. These paths will remain in force for the regulatory period 1 July 2013 to 30 September 2017.

1.4 In our reasons paper for those decisions, we provided an explanation for each component of the default price-quality path for gas pipeline services.[3] For example, we explained how and why we set starting prices based on the current and projected profitability of each supplier, rather than 'rolling over' the supplier's existing prices.

1.5 Whether a supplier is subject to a limit on their maximum price or revenue depends on the type of service that they provide.

1.5.1 Suppliers of gas distribution services will be subject to a limit on their maximum price ('price cap').

1.5.2 Suppliers of gas transmission services will be subject to a limit on their maximum revenue ('revenue cap').

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[1] Refer: *Gas Distribution Services Default Price-Quality Path Determination 2013*, [2013] NZCC 4; and *Gas Transmission Services Default Price-Quality Path Determination 2013*, [2013] NZCC 5. For the purposes of this paper we refer to these as the determinations. The versions published on 24 October 2012 and 8 February 2013 as part of our consultation process are referred to as draft determinations and updated draft determinations, respectively.

[2] Refer: Commerce Commission, *Setting Default Price-Quality Paths for Suppliers of Gas Pipeline Services*, 28 February 2013.

[3] Commerce Commission, *Setting Default Price-Quality Paths for Suppliers of Gas Pipeline Services*, 28 February 2013.

1.6 The quality standards for suppliers of both types of service are based on response times to emergencies.

How we have explained the reporting requirements

1.7 Suppliers are required to report compliance with the default price-quality path, and for that reason we have provided an overview of the compliance requirements. The four main subjects covered by this paper are:

1.7.1 the dates that suppliers are required to report compliance with the default price-quality path (chapter 2);

1.7.2 information requirements for demonstrating compliance with the price or revenue cap (chapter 3);

1.7.3 information requirements for demonstrating compliance with the quality standards (chapter 4); and

1.7.4 information requirements for demonstrating the impact of transactions (chapter 5).

1.8 The attachments provide further detail on each of these topics, including responses to submissions that are not addressed in elsewhere in this paper, or the reasons paper. The majority of these submissions were provided in response to our revised draft decision published on 24 October 2012, or our update paper and updated draft determinations published on 8 February 2013.[4]

How you can contact us to ask a question

1.9 If you have any queries on matters raised in this paper or on complying with the determination, please send an email with the subject 'Query about compliance reporting for the gas default price-quality path' to regulation.branch@comcom.govt.nz.

[4] Commerce Commission, *Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 24 October 2012; Commerce Commission, *How we propose to implement the Default Price-Quality Paths for Gas Pipeline Services*, 8 February 2013; Commerce Commission, *Gas Distribution Services Default Price-Quality Path Determination 2013, Technical consultation draft*, 8 February 2013; and Commerce Commission, *Gas Transmission Services Default Price-Quality Path Determination 2013, Technical consultation draft*, 8 February 2013.

2. Dates for reporting compliance with the default price-quality path

Purpose

2.1 This chapter summarises the reporting dates and corresponding assessment periods for each compliance statement.

Compliance statements—Due dates and assessment periods

2.2 For each assessment period, suppliers are required to provide us with a compliance statement that demonstrates whether they have complied with the default price-quality path.

2.3 Supporting information and calculations must be included in the compliance statement that is provided to the Commission. For example:

2.3.1 each compliance statement must be accompanied by a Directors' certificate and an independent audit report;[5] and

2.3.2 copies of detailed price and quantity schedules are required to clearly demonstrate that a supplier has not charged more than its price cap or earned more than its revenue cap.[6]

2.4 An annual compliance statement should be clearly presented and understandable, and meet all the requirements set out in clause 11 of the respective determinations. We also expect compliance statements to clearly set out where certain requirements of the determination are not applicable for the assessment period in question.[7]

2.5 Suppliers must subsequently publish their compliance statement on their website.[8] This is so that interested parties can also understand whether a supplier has complied with its obligations under the default price-quality path.

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[5] These are required by clause 11.2 of the determinations. The format of the certificate and report are set out in schedules 7 and 8 of the distribution determination and schedules 8 and 9 of the transmission determination.

[6] Price and quantity information is required by clause 11.3 of the determinations

[7] For example, clause 11.4 in the distribution determination, which relates to price restructures, may not apply to a supplier in an assessment period. In this instance, we encourage suppliers to explicitly state that it has not restructured its prices.

[8] This is required by 11.1(b) of the determinations.

Dates that compliance statements are due

2.6 The two key dates in the reporting schedule are:

2.6.1 the date that suppliers must submit their compliance statements to the Commission; and

2.6.2 the date that suppliers must publish their compliance statement on their website.

2.7 The reporting dates are set out in Table 2.1.

Table 2.1: Due dates for compliance statements

Compliance statement		**Due dates**	
		Submitted to Commission	**Published on website**
First	MDL	8 September 2014	15 September 2014
	All other suppliers	10 December 2014	17 December 2014
Second	MDL	8 September 2015	15 September 2015
	All other suppliers	10 December 2015	17 December 2015
Third	MDL	8 September 2016	15 September 2016
	All other suppliers	12 December 2016	19 December 2016
Fourth	MDL	8 September 2017	15 September 2017
	All other suppliers	11 December 2017	18 December 2017
Fifth	MDL	11 December 2017	18 December 2017

2.8 These dates have been determined using clause 11.1 of the respective determinations. That clause sets out the timeframes for reporting compliance is 50 working days from the end of each assessment period. Suppliers then have a further five working days to publish the compliance statement on their website.

Assessment periods align to pricing years where possible

2.9 Where possible we have aligned the assessment periods to the supplier's pricing years, as shown in Table 2.2.

Table 2.2: Assessment periods

Assessment period		**Start and end dates**	
		Start date	**End date**
First	MDL	1 July 2013	30 June 2014
	All other suppliers	1 July 2013	30 September 2014
Second	MDL	1 July 2014	30 June 2015
	All other suppliers	1 October 2014	30 September 2015
Third	MDL	1 July 2015	30 June 2016
	All other suppliers	1 October 2015	30 September 2016
Fourth	MDL	1 July 2016	30 June 2017
	All other suppliers	1 October 2016	30 September 2017
Fifth	MDL	1 July 2017	30 September 2017

2.10 In each assessment period, a supplier must set its prices so that it does not exceed its price or revenue cap. Compliance with these constraints is assessed over the entire assessment period, rather than at any time during the period. We therefore do not require suppliers to adjust their prices on any particular date within an assessment period.

3. Information requirements for the price or revenue cap

Purpose

3.1 This chapter summarises the information that suppliers are required to provide to demonstrate compliance with their price or revenue cap.

Compliance is demonstrated using notional values

3.2 To assess compliance with a price or revenue cap, we compare the amount of revenue that the supplier has generated through its pricing, with the maximum amount of revenue that the supplier is allowed to generate. In both cases, the price of the service is multiplied by a corresponding quantity term.

3.3 However, rather than assessing the supplier's actual revenue, we assess compliance on the basis of 'notional' revenue. The revenue is 'notional' because it is based on quantities that are lagged by two years, rather than the quantities for the year in question. This ensures that all the values can be calculated at the time the supplier sets its prices.

3.4 Two types of notional revenue figures are calculated:

3.4.1 'Allowable notional revenue', which is the amount that the supplier's prices are allowed to generate on a notional basis;[9] and

3.4.2 'Notional revenue', which is the amount that the supplier's prices did generate on a notional basis.[10]

3.5 The difference between notional revenue and allowable notional revenue reflects the supplier's pricing decisions. This is because equivalent quantity terms are used in both expressions. If the supplier has been pricing appropriately, then notional revenue will be less than or equal to allowable notional revenue.

3.6 In practice, a supplier's actual revenue will differ from their notional revenue. We take this difference into account at the start of the regulatory period, by adjusting the supplier's allowable notional revenue by the forecast difference between lagged and current quantities. Consequently, suppliers will earn the appropriate amount if they are compliant on a notional basis.

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[9] The method for calculating allowable notional revenue is set out in schedules 4 and 5 in the transmission determination, and schedules 3 and 4 in the distribution determination.

[10] The method for calculating allowable notional revenue is set out in clause 8.5 of the determinations.

Formula used to assess compliance

3.7 Box 3.1 sets out the formula that we use to assess compliance ('compliance formula').[11]

Box 3.1: Compliance formula

In all instances, notional revenue must not exceed allowable notional revenue. The compliance formula generally expresses this as:

(1) $ANR_t \geq NR_t$

Where:

NR_t is the notional revenue for the pricing year ending in year t, eg, for a pricing year ending in September 2014, t = 2014.

ANR_t is the allowable notional revenue for the pricing year ending in year t, eg, for a pricing year ending in Sep 2014, t = 2014.

3.8 The calculation of allowable notional revenue and notional revenue is different for gas transmission businesses, and gas distributors. These calculations are explained in the attachments.

3.8.1 Attachment A provides an overview of the calculations for gas transmission businesses.

3.8.2 Attachment B provided an overview of the calculations for gas distributors.

3.9 If a supplier's prices change during the assessment period, then allowable notional revenue will be calculated using the weighted average price that applied to the corresponding lagged quantity during the pricing year, ie, rather than the closing price.

Compliance test for assessment periods that are not 12 months long

3.10 As shown in Box 3.2, we have tailored the compliance formula in the determinations to reflect the time that suppliers are most likely to change their prices. In particular, the formula is different in the first assessment period for all suppliers except MDL and, for MDL the compliance formula is different in the last assessment period.

[11] The compliance formula applying to each assessment period is set out in clause 8.4 of the determinations.

Box 3.2: Compliance formula for assessment periods that are not 12 months long

The compliance formula is different for the first assessment period for suppliers other than MDL.

Suppliers will be compliant if the combined total of the notional revenue figures on the right-hand side of equation (2) does not exceed the combined allowable notional revenue figures on the left-hand side of equation (2).

(2) $0.25 \times ANR_{2013} + ANR_{2014} \geq 0.25 \times NR_{2013} + NR_{2014}$

Equation (2) requires all suppliers except MDL to calculate allowable notional revenue and notional revenue for the full 2012/13 and 2013/14 pricing years. The 2012/13 figures cover the first three months of the first assessment period, 1 July 2013 to 30 September 2013, and has been weighted accordingly; the 2013/14 figures cover the remaining 12 months.[12]

For MDL's last assessment period, 1 July 2017 to 30 September 2017, MDL must calculate allowable notional revenue and notional revenue for the full 2017/18 pricing year. This figure is then weighted accordingly.[13]

(3) $0.25 \times ANR_{2018} \geq 0.25 \times NR_{2018}$

Gas distributors are not penalised for pricing below their price cap

3.11 If a gas distributor prices below its price cap in any year, the price allowed in subsequent years will not be affected.[14] This is because we have included a revenue differential term in the calculation of allowable notional revenue for the second and subsequent assessment periods.[15] This term ensures that allowable notional revenue is not affected by the prices the supplier sets in the previous assessment period.

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12 The full 2012/13 year must be calculated because our starting price model produces maximum allowable revenue figures for 12 months periods. Because the first assessment period will only cover three months of the 2012/13 pricing year, the values for the full year are multiplied by one-quarter.

13 The full 2017/18 year must be calculated because our starting price model produces maximum allowable revenue figures for 12 months periods. Because the final assessment period will only cover three months of the 2017/18 pricing year, the values for the full year are multiplied by one-quarter.

14 The revenue differential term is only relevant to a weighted average price cap, and therefore only effects distribution businesses.

15 This revenue differential term is represented in allowable notional revenue calculations as ANR_{t-1}-NR_{t-1}.

3.12 The revenue differential term is calculated as the difference between notional revenue and allowable notional revenue for the immediately preceding assessment period. However, there is no revenue differential term for the first assessment period. This is because the price cap applies from the start of the regulatory period onwards.

3.13 The revenue differential term does not allow suppliers to recoup any under-recovery in a previous year.[16] So while suppliers are not penalised for pricing below their allowable price, they cannot subsequently attempt to undo those actions by pricing above the cap in later time periods.

Treatment of pass-through costs and recoverable costs

3.14 Some costs that suppliers face may be passed through directly to their consumers. These costs have been defined as pass-through costs and recoverable costs in the up-front rules, requirements and processes of regulation (collectively referred to as 'input methodologies').

3.15 In particular, costs that are relevant for the first default price -quality path include:[17]

3.15.1 Pass-through costs, such as Local Authority rates, and various levies, eg, Commerce Act levies, Gas Act levies, and Electricity and Gas Complaints levies; [18] and

3.15.2 'Recoverable costs' for the first regulatory period are confined to gas transmission businesses' gas balancing costs or credits that have not been allocated to a gas shipper, or recovered from or credited to a welded party.[19]

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16 Refer to: Commerce Commission, *2010-2015 Electricity Distribution Default Price-Quality Path Revenue Differential Term Amendment, Reasons Paper*, 30 November 2011.

17 There may be other recoverable costs that apply to suppliers if they move onto a customised price-quality path.

18 Refer to clause 3.1.2 of the respective input methodologies. We have amended the input methodologies definition to allow gas transmission businesses to also treat Electricity and Gas Complaints Commission levies as pass-through costs.

19 Refer to clause 3.1.3 of the respective input methodologies. Compressor fuel costs for transmission services are not considered as a recoverable cost; these costs are taken into account in each supplier's opex projections. MDL requested that these fuel costs be included as a recoverable cost, refer: MDL, *Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 7 December, p. 8.

3.16 When demonstrating compliance, suppliers deduct pass-through and recoverable costs from their regulated revenues. Both cost categories capture spending that the supplier has little or no control over.

When pass-through and recoverable costs can be deducted

3.17 The requirements for determining the amount of pass-through and recoverable costs that may be recovered in a pricing period are set out in schedule 5 of the distribution determination and schedule 6 of the transmission determination.

3.18 Suppliers can only deduct pass-through and recoverable costs that are known prior to the start of the assessment period, ie, they cannot deduct values that have been forecast. The reason for this is to minimise the chances of a supplier over- or under-recovering their revenue.

3.19 In addition, the pass-through costs or recoverable costs that are used to calculate notional revenues and allowable notional revenues must:

3.19.1 not have already been recovered by the supplier, and not able to be otherwise recovered from consumers or other parties, ie, these costs must not be recovered twice; and

3.19.2 not relate to costs that were incurred by the supplier prior to the regulatory period, with an exception for any unrecovered pass-through amounts relating to services controlled by the Authorisations.[20]

3.20 Suppliers are generally not able to recover costs that were incurred before the start of the regulatory period. This is because they have already had the opportunity to reflect these costs in their pricing decisions.[21] In any event, it would not be possible to separately identify the costs that suppliers have recovered prior to the regulatory period without a detailed building blocks analysis.

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[20] Refer: the Commerce Act (Powerco Natural Gas Services) Authorisation 2008; and the Commerce Act (Vector Natural Gas Services) Authorisation 2008;

[21] The exception to this is that suppliers subject to the Authorisations can carry over an amount if they demonstrate that, prior to the start of the regulatory period, they have not recovered the pass through costs attributable to the controlled services for the period of the Authorisation. This ensures that suppliers have an opportunity to recover these costs. The amount carried over must be claimed in the 2013/14 pricing period unless it would lead to price shocks to consumers, in which case the amount should be spread over time. Powerco and Vector both supported the approval of missed pass-through costs as part of the audit and certification assurance process that occurs for the compliance statement, rather than us formally approving the costs. Powerco, *Powerco submission on "How we propose to implement the Default Price-Quality Paths for Gas Pipeline Services"*, 18 February 2013, p. 1; and Vector, *Implementation of the Default Price-Quality Path for Gas Pipeline Services*, 18 February 2013, p. 2.

Pass-through and recoverable costs may be adjusted for the time value of money

3.21 Pass-through costs and recoverable costs that become known after the supplier sets its prices may be claimed in a future period and may be adjusted for the time value of money. We have provided two options for calculating these adjustments. Suppliers must select one option and apply it consistently across the whole regulatory period.[22]

3.21.1 The first option is based on general assumptions about when pass-through and recoverable costs are paid.

3.21.2 The second option provides for greater accuracy by linking the adjustment to the actual dates when pass-through and recoverable costs are paid and the date that revenue through prices are assumed to be received, ie, 148 days before the end of the pricing year.[23]

3.22 We have set the factor for making adjustments for the time value of money using a cost of debt of 5.38%.[24] This is the estimate of the 5-year cost of debt rate (pre-corporate tax) that was used to determine cost of capital.[25]

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22 For distribution, see paragraphs 7 to 9 of schedule 5 of the determination; for transmission see paragraphs 3 to 5 of schedule 6 of the determination.

23 This second option was provided in response to MDL's submission concerning provisions for making adjustments for part periods. Refer: MDL, *Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 7 December, p. 3.

24 The use of the cost of debt is consistent with submissions on the appropriate method for calculating the time value of money adjustment for claw-back. Refer, for example: Vector, *Implementation of the Default Price-Quality Path for Gas Pipeline Services, 18 February 2013*, paragraph 180.

25 Commerce Commission, *Cost of capital determination for default price-quality paths for suppliers of gas distribution and gas transmission services, and customised price-quality path proposals made by Vector Limited and GasNet Limited*, [2012] NZCC 38, 20 December 2012, p. 5.

Process for approving balancing gas costs

3.23 The approval process for balancing gas costs or credits is part of the annual compliance reporting process.[26] Suppliers are required to provide audited information about how these costs or credits have been calculated, including:

3.23.1 the date, quantity, price and sale or purchase amount for each balancing gas transaction; and

3.23.2 the shipper or welded party name, date, quantity, price and credit or debit amount for each allocation of balancing gas to a shipper or each recovery from or credit to a welded party.

3.24 For clarification, we consider that unaccounted for gas on a transmission network falls within the scope of recoverable costs relating to balancing gas.[27]

Calculation of changes in the Consumer Price Index

3.25 The rate of change we have allowed for all suppliers is CPI-0%. This means that allowable notional revenue will increase in line with inflation each year, where inflation is measured using changes in the Consumer Price Index (CPI).

3.26 The CPI that we rely on is the 'All Groups Index SE9A', which is published by Statistics New Zealand.[28] The allowed adjustment is calculated using the eight most recent quarterly CPI values that are available prior to each pricing year.[29] These calculations are shown in Box 3.3 and Box 3.4.

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26 In order for balancing gas costs or credits to be treated as a recoverable cost, they must be approved under clause 3.1.3(2) of the input methodologies determination for gas transmission services. These costs or credits are considered to be approved if they are as described in clause 3.1.1(c) of that determination.

27 Vector submitted on this matter in response to our 24 October 2012 revised draft decision, refer Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012, pp. 9-10.

28 This has been defined in the input methodology for the specification of price for gas distribution and gas transmission. Notably, the index must be adjusted for certain events, including the recent increase in Goods and Services Tax. For further information, please refer to sub-clauses (b) and (c) in the definition of CPI that is set out in the input methodologies for the specification of price.

29 In response to submissions, we slightly modified the subscripts in these CPI formula to those published in our draft determination. The subscripts reference to quarter periods during a calendar year. Refer: Powerco, *Draft Decision on Initial DPPs for Gas Pipeline Businesses*, 7 December 2012, p. 16; and Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012, pp. 21-22.

Box 3.3: Annual CPI adjustment for all suppliers other than MDL

The allowed CPI adjustment for a pricing year is expressed as:

$$(4)\ \Delta CPI = \frac{CPI_{Jun,t-2} + CPI_{Sep,t-2} + CPI_{Dec,t-2} + CPI_{Mar,t-1}}{CPI_{Jun,t-3} + CPI_{Sep,t-3} + CPI_{Dec,t-3} + CPI_{Mar,t-2}} - 1$$

where CPI_q is the CPI for the quarter year ending q.

Box 3.4: Annual CPI adjustment for MDL

The allowed CPI adjustment for a pricing year is expressed as:

$$(5)\ \Delta CPI = \frac{CPI_{Mar,t-2} + CPI_{Jun,t-2} + CPI_{Sep,t-2} + CPI_{Dec,t-2}}{CPI_{Mar,t-3} + CPI_{Jun,t-3} + CPI_{Sep,t-3} + CPI_{Dec,t-3}} - 1$$

where CPI_q is the CPI for the quarter year ending q.

Treatment of price restructuring

3.27 A supplier may restructure or change its prices during an assessment period. These changes will affect how notional revenue is calculated for that assessment period by both distribution and transmission businesses.

3.28 Notional revenue is calculated using prices and corresponding quantities from an earlier period. In many cases, it will be possible to trace the historical quantity information to a restructured price.[30]

3.29 Historical quantity information corresponding to a restructured price may not always exist. In this instance, suppliers will have to estimate a quantity. A concern we have is that if that quantity estimate is too low, the supplier will set a price that is higher than it would be for those services if the estimate was accurate.

30 For example, a supplier may split the tariff group that applies to most residential consumers into two new groups. One group being those with an historical consumption of less than 10 GJ per annum. The other group being those with a larger consumption. Under these circumstances this rule should be able to be applied to historical data to determine all the corresponding historical quantities necessary for applying the normal compliance formulas.

3.30 Any quantity estimate that a supplier is required to make should be reasonable. We plan to closely monitor price restructures where estimates are used. Suppliers are therefore required to produce certain information concerning a restructured price for the compliance statement.[31] In particular:

3.30.1 The methodology used to determine the quantity estimate that is used to calculate notional revenue.

3.30.2 A forecast of the quantity for the assessment period in which the restructure occurs. This forecast must be prepared by the supplier before the restructured price takes effect.

3.30.3 The actual quantity for the assessment period that corresponds to the restructured price. This information will be available when a supplier submits it compliance statements.

3.30.4 An explanation of the reasons for any differences between the actual and forecasted quantity.

3.31 Quantity information for the period in which the price restructure occurs is not used to calculate notional revenue. This information is important though for ensuring that suppliers take care in making an estimate and to allow us to assess whether a supplier's estimate and forecast assumptions were reasonable.

3.32 Given the potential implications of price restructures for compliance, the compliance statement is an appropriate vehicle to highlight price restructure information. We acknowledge that there may be some duplication of information with pricing methodology disclosures, which was the alternative disclosure option recommended by Vector.[32]

31 Information requirements relating to price restructures are set out in clause 11.4 in the distribution determination, and clause 11.6 in the transmission determination.

32 Vector submitted that it wasn't clear why this information was required. Vector commented that requiring such "additional information is inconsistent with the price path, which deals solely with notional, not actual, revenue... [and] considers that the pricing methodology is a more appropriate place for consideration of the actual revenue that a GDB expects, incorporating the implications of price restructuring." Refer: Vector, *Implementation of the Default Price-Quality Path for Gas Pipeline Services*, 18 February 2013, pp. 3-4.

3.33 For the gas distribution determination, we have included a clarification that a restructure of prices does not, and should not, change the allowable notional revenue for that pricing year.[33] As allowable notional revenue is determined using prices and quantities from a prior period, it is not possible for a price restructure to increase allowable notional revenue in that year.[34]

3.34 We have not included provisions for alternative compliance relating to instances involving price restructures. We expect that suppliers should always have sufficient information to comply with the requirements that we have set.

[33] This is set out in clause 8.6 in the distribution determination.

[34] Refer: Vector, *Implementation of the Default Price-Quality Path for Gas Pipeline Services*, 18 February 2013, pp. 3-4.

4. Information requirements for quality

Purpose

4.1 This chapter sets out the information that suppliers are required to provide to demonstrate compliance with the quality standards.

Overview of the quality standards

4.2 Each year suppliers are required to demonstrate whether they have complied with the quality standards that we have set. The quality standards for the default price-quality path are based on response times to emergencies. In particular:

4.2.1 gas distribution businesses and gas transmission businesses must respond to 100% of emergencies in no more than 180 minutes; and

4.2.2 gas distribution businesses must respond to 80% of emergencies in no more than 60 minutes.[35]

4.3 The supplier must present information on the policies and procedures that have been used for recording its response times to emergencies. This information should be presented in a way that can be understood by reading the compliance statement in isolation. Sections of policies or procedures should not be referenced unless they are included within the compliance statement.[36]

4.4 Where the quality standard for an assessment period has not been met, the supplier must explain the reasons for not meeting that standard. In this instance, the supplier must include information in the compliance statement on the emergencies that were not responded to within the relevant timeframes, which details:

4.4.1 a description of those emergencies, including their nature, cause, and location; and

4.4.2 the number of consumers affected by those emergencies.

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[35] These quality standards are set out in clause 9.1 of the determinations. The corresponding information requirements for compliance statements is set in clause 11.3(b) of the determinations.

[36] Suppliers may consider any method that may assist in the presentation of their policies and procedures. For example flow charts may be used to provide a diagrammatic overview.

How emergencies are defined

4.5 Separate definitions of emergencies are applied to gas distribution and transmission businesses.[37]

4.6 For gas distribution services, an emergency means: [38]

4.6.1 an unplanned escape or ignition of gas that requires the active involvement of any emergency service, ie, fire service, ambulance; or

4.6.2 an unplanned disruption in the supply of gas that affects more than five installation control points; or

4.6.3 an evacuation of a premises as the result of escape or ignition of gas.

4.7 For gas transmission services, an emergency means:[39]

4.7.1 an incident that is required to be reported under the 'Guidelines for a Certificate of Fitness for High-Pressure Gas and Liquids Transmission Pipelines';[40] and

4.7.2 where, the gas transmission business considers a representative of the business is required to immediately respond to.

37 These definitions are consistent with those recommended by Vector, refer: Vector, *Implementation of the Default Price-Quality Path for Gas Pipeline Services*, 18 February 2013, p. 6. Vector, supported by MDL, raised a concern in submissions about our proposed definition of emergencies for transmission businesses. They were concerned that our proposed definition was too broad, and would capture events not usually considered emergencies. MDL deferred to Vector on matters regarding the definition of emergencies, as they are the Technical Operator for MDL, and the Critical Contingency Operator for all transmission pipelines. Refer: MDL, *Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 7 December 2012, p10; Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012, pp23-25; and MDL, *Cross-Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 21 December, p1.

38 This definition is set out in clause 4.2 of the determination. The definition of emergencies for gas distribution is consistent with the definition used for information disclosure and similar to that used in the gas authorisations.

39 This definition is set out in clause 4.2 of the determination.

40 Department of Labour, *Guidelines for a Certificate of Fitness for High-Pressure Gas and Liquids Transmission Pipelines*, 2002. See 4.9 incident investigation/reporting.

Potential exclusion of certain incidents that are not responded to within 180 minutes

4.8 There may be instances where suppliers are unable to respond to an emergency in the required timeframe due to circumstances outside their control.[41] For example, a natural disaster may damage access routes, and make access difficult or even impossible.

4.9 To have an event excluded from the 'total number of emergencies' that the supplier was required to respond to within 180 minutes, suppliers must make a request with the Commission within 30 days of the emergency. If granted, the relevant event will be deemed not to be a breach of the quality standards.

4.10 We will consider each request to exclude an event on a case by case basis. We did not include a detailed list of the instances where requests would be granted, because we want to understand of the individual circumstances of each event.

[41] This provision is set out in clause 9.2 of the determinations.

5. Information requirements for transactions

Purpose

5.1 This chapter sets out the compliance obligations for suppliers that are involved in certain transactions during an assessment period.

Transactions with other suppliers must be included in compliance reporting

5.2 The compliance requirements for each assessment period also contemplate scenarios where a supplier:

5.2.1 amalgamates with another supplier;

5.2.2 merges with another supplier;

5.2.3 takes over another supplier;

5.2.4 acquires assets from another supplier; or

5.2.5 disposes of assets to another supplier.

5.3 All of these scenarios affect the allowable notional revenue in an assessment period, and in some instances the quality standards will be affected too.[42]

Compliance following an amalgamation, merger or acquisition

5.4 A specific treatment applies in the case of an amalgamation, merger or acquisition that involves two or more suppliers:

5.4.1 of the same type of service, ie, distribution or transmission services; and

5.4.2 that are both subject to a default price-quality path.[43]

5.5 For the supplier that exists after the transaction is completed, the allowable notional revenue, notional revenue, and response times to emergencies, is the sum of the respective values that are applicable to the two suppliers prior to the transaction.

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[42] Compliance requirements for these transactions are set out in clause 10 of the determinations. The corresponding information requirements are set out in clause 11.7 in the transmission determination , and clause 11.5 in the distribution determination.

[43] If a supplier moves onto a customised price-quality path, the corresponding s 52P determination should specify what happens in the event that the supplier is involved in an amalgamation, or a merger or acquisition.

Compliance following the acquisition or disposal of assets

5.6 A supplier's allowable notional revenue is adjusted in situations where it acquires assets from or disposes assets to another supplier and results in consumers being supplied gas pipelines services by a different provider. In particular:

5.6.1 suppliers are permitted to recover revenue from consumers for additional services that are supplied due to an acquisition. Conversely, suppliers are not permitted to recover revenue for services provided to customers they no longer supply.

5.6.2 the total prices for any additional services will not exceed the prices that were charged by the previous supplier, adjusted by inflation.

5.7 Suppliers may also make adjustments to allowable notional revenue using an alternative compliance assessment approach, provided it has a substantially equivalent effect. An alternative may be necessary where a supplier is unable to calculate the adjustment. For example, a supplier may not have to make assumptions rather than calculate the adjustments due to a lack of information available beyond the supplier’s control.

Notification of major transactions

5.8 Suppliers must notify us within 30 working days of any large transactions that occur during the regulatory period. We have limited this notification requirement to transactions where:

5.8.1 the regulatory investment value of the supplier’s assets is anticipated to increase or decrease by more than 10%;[44] and

5.8.2 the supplier’s revenues recovered through prices is anticipated to increase or decrease by more than 10% in an assessment period.

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44 In response to submissions, regulatory investment value is defined with reference to information disclosure requirements. Refer: Powerco, *Powerco submission on “How we propose to implement the Default Price-Quality Paths for Gas Pipeline Services”*, 18 February 2013, p. 2; and Vector, *Implementation of the Default Price-Quality Path for Gas Pipeline Services*, 18 February 2013, p.10.

5.9 We intend to use the information provided to help understand the transactions suppliers are involved in. This will assist us to:

5.9.1 refine the compliance requirements for future assessment periods; and

5.9.2 understand differences between annual compliance statements provided by a supplier who has undertaken a transaction. For example, where there are significant differences between one year and the next, the information may help demonstrate the effect of the transactions on the supplier's compliance.

Attachment A: Calculations for gas transmission businesses to demonstrate compliance with their revenue cap

Purpose of this attachment

A3 This attachment sets out the calculations that MDL and Vector Transmission must perform to demonstrate compliance with their revenue cap.

Allowable notional revenue—The benchmark for compliance assessments

A4 As noted in Chapter 3, allowable notional revenue is the benchmark against which compliance is assessed. The calculations for allowable notional revenue are different for MDL and Vector in the first year because of differences in their pricing years and assessment periods.

A5 All variables that are set out in tables in this attachment are specified in the transmission determination. Pass-through and recoverable costs, which are discussed in Chapter 3, are calculated by each supplier.

How to determine allowable notional revenue for the first assessment period

A6 Box A1 sets out how MDL must calculate allowable notional revenue for the first assessment period. The calculation is different for the remainder of the regulatory period.

Box A1: Calculations for the first assessment period (MDL)

The allowable notional revenue for the pricing year ending in 2014 (ANR_{2014}) is:

(6) $$ANR_{2014} = \frac{MAR + (K_{2014} + V_{2014})}{\Delta D} - (K_{2014} + V_{2014})$$ [45]

where:

MAR	is the starting price, specified as a maximum allowable revenue, as set out in Table A1.
ΔD	is the change in constant price revenue for the period 1 July 2012 to 30 June 2014, as specified in Table A1.
$K_{2014} + V_{2014}$	is the sum of all pass-through and recoverable costs for the pricing year ending in 2014, as discussed in Chapter 3.

[45] Allowable notional revenue for the 2013/14 pricing year is derived from the maximum allowable revenues that we have determined. Maximum allowable revenue for any given year is calculated using our best estimate of what quantities will be in that year. To be consistent with notional revenue that uses quantities from two years prior, we divide maximum allowable revenue by our estimate of the change in

Table A1: Inputs for MDL

Maximum allowable revenue (MAR) $m	ΔD
39.805	0.967

A7 Box A2 sets out how Vector Transmission must calculate allowable notional revenue for the first assessment period. As the first assessment covers part of 2012/13 as well as 2013/14, Vector must calculate allowable notional revenue for two years. The calculation is different for the remainder of the regulatory period.

Box A2: Calculations for the first assessment period (Vector Transmission)

The allowable notional revenue for the pricing year ending in 2013 (ANR_{2013}) is:

(7) $$ANR_{2013} = \frac{MAR}{\Delta D}$$

where:

MAR	is the starting price, specified as a maximum allowable revenue, as set out in Table A2.
ΔD	is the change in constant price revenue for the period 1 October 2011 to 30 September 2013, as specified in Table A2.

The allowable notional revenue for the pricing year ending in 2014 (ANR_{2014}) is:

(8) $$ANR_{2014} = ANR_{2013}(1 + \Delta CPI_{2014})(1 - X)$$

where:

ANR_{2013}	is the allowable notional revenue for the pricing year ending in 2013, calculated in accordance with equation (7).
X	is the rate of change, as specified in Table A2.
ΔCPI_{2014}	is the derived change in the CPI to be applied for the pricing year ending in 2014 being equal to:

$$\Delta CPI_{2014} = \frac{CPI_{Jun,2012} + CPI_{Sep,2012} + CPI_{Dec,2012} + CPI_{Mar,2013}}{CPI_{Jun,2011} + CPI_{Sep,2011} + CPI_{Dec,2011} + CPI_{Mar,2012}} - 1$$

where:

CPI_q is the CPI for the quarter year ending q.

constant price revenue forecasts for the two years t-1 to t (ΔD). The derivation of this relationship is set out in Attachment D.

Table A2: Inputs for Vector Transmission

Maximum allowable revenue (MAR) $m	ΔD	X
88.983	1.011	0

How to calculate allowable notional revenue for later assessment periods

A8 Box A3 sets out the compliance calculations for both MDL and Vector Transmission for later assessment periods. MDL must use this equation to calculate allowable notional revenue for its pricing years ending 2015 to 2018 and Vector Transmission must use this equation to calculate allowable notional revenue for its pricing years ending 2015 to 2017.

A9 Allowable notional revenue is adjusted each year for the annual change in CPI and the X factor for that assessment period. This is reflected in equation (9).

Box A3: Allowable notional revenue after the first assessment period

The allowable notional revenue for the pricing year ending in year t (ANR_t) is:

(9) $$ANR_t = ANR_{t-1}(1+\Delta CPI_t)(1-X)$$

where:

t	is the year in which the pricing year ends.
ANR_{t-1}	is the allowable notional revenue for the pricing period ending the year prior to year t. For example, for the 2014/15 pricing year t is 2015, and t-1 is 2014.
ΔCPI_t	is the derived change in the CPI to be applied for the pricing year ending in year t, as discussed in Chapter 3.
X	is the industry-wide rate of change of 0%.

Notional revenue—Revenue for compliance purposes

A10 As explained in Chapter 3, for compliance purposes, revenue is calculated on a notional basis. Notional revenue is calculated in the same way for both gas transmission businesses in all assessment periods.

A11 Notional revenue can be calculated when prices are set because the calculation uses known values. It uses:

A11.1 known quantities from two years prior to the pricing year, which are the most recently known quantities when prices are set; and

A11.2 known pass-through and recoverable costs (as discussed in Chapter 3).

A12 When calculating notional revenue at the end of an assessment period, the prices must then reflect the prices charged during the period. If prices changed during the period, these must be weighted accordingly.

Box A4: Calculating notional revenue in each assessment period

Notional revenue for a pricing year ending in year t (NR_t) is:

(10) $$NR_t = \sum_i P_{i,t} Q_{i,t-2} - (K_t + V_t)$$

where:

t	is the year in which the pricing year ends. For example, for the 2014/15 pricing year t is 2015.
i	is each price relating to a gas transmission service;
$P_{i,t}$	is the i^{th} price for any part of the pricing year ending in year t;
$Q_{i,t-2}$	is the quantity corresponding to the i^{th} price during the pricing period ending two years prior to year t. For example, for the 2014/15 pricing year t is 2015, and two years prior or t-2 is 2013.
K_t	is nil for the Vector's Pricing Period ending in 2013, and for all other Pricing Periods is the sum of all pass-through costs for the Pricing Period ending in year t, as discussed in Chapter 3.
V_t	is nil for the Vector's Pricing Period ending in 2013, and for all other Pricing Periods is the sum of all Recoverable Costs for the Pricing Period ending in year t, as discussed in Chapter 3.

Attachment B: Calculations for gas distributors to demonstrate compliance with their price cap

Purpose of this attachment

B3 This attachment sets out the calculations that gas distributors must perform to demonstrate compliance with their price cap.

Allowable notional revenue—The benchmark for compliance assessments

B4 As noted in Chapter 3, allowable notional revenue is the benchmark against which compliance is assessed. All variables that are set out in tables in this attachment are specified in the distribution determination. Pass-through and recoverable costs, which are discussed in Chapter 3, are calculated by each supplier.

How to determine allowable notional revenue for the first assessment period

B5 Box B1 sets out the how distributors must calculate allowable notional revenue in the first assessment period. As the first assessment covers part of 2012/13 as well as 2013/14, allowable notional revenue must be calculated for two years. The calculation is different for the remainder of the regulatory period.

Box B1: Price cap for the first assessment period

The allowable notional revenue for the pricing year ending in 2013 (ANR_{2013}) is:[46]

(11) $$ANR_{2013} = \frac{MAR}{\Delta D}$$

where:

MAR	is the starting price, specified as a maximum allowable revenue, as set out in Table B1.
ΔD	is the change in constant price revenue for the period 1 October 2011 to 30 September 2013, as specified in Table B1.[47]

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[46] Allowable notional revenue for the 2012/13 pricing year is derived from the maximum allowable revenues that we have determined. Maximum allowable revenue for any given year is calculated using our best estimate of what quantities will be in that year. To be consistent with notional revenue that uses quantities from two years prior, we divide maximum allowable revenue by our estimate of the change in constant price revenue forecasts for the two years ‘t-1’ to ‘t’ (ΔD). The derivation of this relationship is set out in Attachment D.

[47] Specifically, the constant price revenue rates for each of the years are multiplied together, ie, $\Delta D = (1+\Delta CPR_{2012})(1+\Delta CPR_{2013})$.

The allowable notional revenue for the pricing year ending in 2013 (ANR_{2013}) is:[48]

(12) $ANR_{2014} = (ANR_{2013} \times CPR_{2012})(1+\Delta CPI_{2014})(1-X)$

where:

ANR_{2013}	allowable notional revenue for the Pricing Period ending in 2013, calculated using equation (11).
CPR_{2012}	is one plus the constant price revenue growth for the Pricing Period ending in 2012 as specified in Table B2.
X	is the rate of change as specified in Table B2.
ΔCPI_{2014}	is the derived change in the CPI to be applied for the Pricing Period ending in 2014 being equal to:

$$\Delta CPI_{2014} = \frac{CPI_{Jun,2012} + CPI_{Sep,2012} + CPI_{Dec,2012} + CPI_{Mar,2013}}{CPI_{Jun,2011} + CPI_{Sep,2011} + CPI_{Dec,2011} + CPI_{Mar,2012}} - 1$$

where:

CPI_q is the CPI for the quarter year ending q.

B6 Table B1 and Table B2 show the inputs required to calculate allowable notional revenue in the first assessment period.

Table B1: Allowable notional revenue inputs for 2013

Supplier	Maximum allowable revenue (MAR) $m	ΔD
GasNet	4.578	0.989
Powerco	48.620	1.002
Vector Distribution	69.693	1.011

Table B2: Allowable notional revenue inputs for 2014

Supplier	CPR_{2012}	X
GasNet	0.995	0
Powerco	1.001	0
Vector Distribution	1.005	0

48 The derivation of this formula is set out in Attachment D.

How to calculate allowable notional revenue for later assessment periods

B7 Box B2 sets out the allowable notional revenue calculations for gas distributors in later assessment periods.

Box B2: Price cap for assessment periods other than the first

The allowable notional revenue for the pricing year ending in year t (ANR_t) is:

(13) $$ANR_t = (\sum_i P_{i,t-1}Q_{i,t-2} - (K_{t-1} + V_{t-1}) + (ANR_{t-1} - NR_{t-1}))(1 + \Delta CPI_t)(1 - X)$$

where:

t	is the year in which the Pricing Period ends;
i	is each Price relating to a gas distribution service;
$P_{i,t-1}$	is the ith Price for any part of the Pricing Period ending the year prior to year t;
$Q_{i,t-2}$	is the Quantity corresponding to the ith Price for the Pricing Period ending two years prior to year t;
$K_{t-1} + V_{t-1}$	is the sum of all Pass-through Costs and Recoverable Costs for the Pricing Period ending the year prior to year t, calculated in accordance with Schedule 5;
$ANR_{t-1} - NR_{t-1}$	is the difference between allowable notional revenue and notional revenue for the Pricing Period ending the year prior to year t;
X	is the industry-wide rate of change of 0%.
ΔCPI_t	is the derived change in the CPI to be applied for the Pricing Period ending in year t, as set out in Chapter 3.

B8 The equations for later pricing years are largely the same as explained for 2013/14. The differences are that:

B8.1 allowable notional revenue, as given by equation (13), is expressed as a general formula that applies for the second and subsequent assessment periods;

B8.2 allowable notional revenue is a function of prices from the previous year and a corresponding set of quantities lagged by two years for the second and subsequent assessment periods, rather than allowable notional revenue from the previous year; and

B8.3 the revenue differential term is included for the second and subsequent assessment periods, as discussed in Chapter 3.

Notional revenue—Revenue for compliance purposes

B9 As explained in Chapter 3, for compliance purposes revenue is calculated on a notional basis. Box B3 shows how to calculate notional revenue for each assessment period.

B10 Notional revenue can be calculated when prices are set because the calculation uses known values. It uses:

B10.1 known quantities from two years prior to the pricing year, which are the most recently known quantities when prices are set; and

B10.2 known pass-through and recoverable costs (as discussed in Chapter 3).

B11 When calculating notional revenue at the end of an assessment period, the prices must reflect what the prices charged during the period. If prices changed during the period, then these prices must be weighted accordingly.

Box B3: Calculating notional revenue in each assessment period

Notional revenue for a pricing year ending in year t (NR_t) is:

(14) $$NR_t = \sum_i P_{i,t} Q_{i,t-2} - (K_t + V_t)$$

where:

t	is the year in which the pricing year ends. For example, for the 2014/15 pricing year t is 2015.
i	is each price relating to a gas distribution service;
$P_{i,t}$	is the i^{th} price for any part of the pricing year ending in year t;
$Q_{i,t-2}$	is the quantity corresponding to the i^{th} price during the pricing period ending two years prior to year t. For example, for the 2014/15 pricing year t is 2015, and two years prior or t-2 is 2013.
K_t	is nil for the Pricing Period ending in 2013, and for all other Pricing Periods is the sum of all pass-through costs for the Pricing Period ending in year t, as discussed in Chapter 3.
V_t	is nil for the Pricing Period ending in 2013, and for all other Pricing Periods is the sum of all Recoverable Costs for the Pricing Period ending in year t, as discussed in Chapter 3.

Attachment C: Further responses to submissions on particular topics

#	Topic	Submission	Response
1	Timing of compliance statements	Vector and MDL strongly opposed the proposal to demonstrate compliance with the price path just after the start of the pricing period and following the pricing period.[49] In particular, Vector submitted that it would face unnecessary compliance costs and we understand that Vector has a number of non-standard contracts that are renegotiated at any time during a given year. Vector also submitted that it should not need to demonstrate the effect of price changes during a period, so as it complies with the price cap at the end of the period.[50]	Agree. Given how we have set the price and revenue caps, if a supplier changes its prices during an assessment period, compliance can only be demonstrated with certainty after that period has ended.
2	Due dates for compliance statements	A number of submitters have argued that compliance statements should be issued 50 working days after the end of the assessment, rather than 2 months as we had proposed previously.[51] Powerco submitted that it be allowed until the end of January to allow more time for director approval and to assess any potential breaches.	Agree. Fifty working days is sufficient time to prepare compliance statements and supporting information. The additional time may be necessary in some instances to complete assurance processes, eg, this is contingent on independent auditor availability.

49 Refer: MDL, *Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services, 7 December*, p. 9; and Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012, p19, p5.

50 Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012, pp. 20-21.

51 GasNet, *Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 7 December 2012, p9; Powerco, *Draft Decision on Initial DPPs for Gas Pipeline Businesses*, 7 December 2012, p16; Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012, p19.

3	Definition of balancing gas	MDL proposed an amendment to the definition for balancing gas in the input methodologies. This is because MDL recovers balancing costs from or credits to welded parties rather than shippers.[52]	Agree. Refer to the amendments to input methodologies published on 25 February 2013.
4	Electricity and Gas Complaints Commission (EGCC) levies	MDL and Vector proposed an amendment to the definition of pass-through costs in the input methodologies to allow for the recovery of EGCC levies.[53]	Agree. Refer to the amendments to input methodologies published on 25 February 2013.
5	Use of the term consumer	MDL submitted that the consumer does not match the definition of consumer in the input methodologies or information disclosure.	We have been specific in the relevant provisions as to whether we mean consumers as defined in the Gas Act or if it includes other parties, eg, a person with an interconnection agreement with transmission business, ie, welded party.
6	Audit of compliance statement for quality	MDL submitted that auditing of performance against the quality standard is not necessary.	Disagree. The audit of information required to demonstrate compliance with the quality standards is likely to be relatively straight-forward and inexpensive. This audit process provides independent assurance on whether a supplier has met the necessary requirements.

[52] MDL, *Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 7 December, p10.

[53] MDL, *Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 7 December, p9; Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012, p29.

7	Time value of money compensation for pass-through and recoverable costs	Powerco and Vector submitted that pass-through and recoverable costs that are paid in earlier pricing year but not recovered from consumers until a later period should be compensated for the time value of money.[54] MDL submitted that the time value of money adjustments should also take account of time lags in the recovery of pass-through and recoverable costs that are not full years.[55] Vector and GasNet both considered that the cost of debt would an appropriate rate to use, whereas Powerco commented that the Authorisation allowed the regulated rate of return.[56]	We only allow pass-through and recoverable costs to be recovered in a pricing period where those costs are known when they set their prices. This is to minimise breaches of the price cap. Suppliers should not be penalised if this causes a delay in their costs being recovered, particularly if they cannot recover any forecast costs. The cost of debt is rate used to calculate the adjustment for the time of value of money. We therefore agree with the submissions from GasNet and Vector on this matter.
8	Definition of quantities	Vector submitted that the definition of quantities used in our 24 October 2012 draft determination is different to the input methodologies definition, which we are required to apply.[57]	Agree. The definition of quantities incorporates by reference the input methodologies definition.
9	Rounding of maximum allowable revenue figures	GasNet submitted that rounding to a single decimal place, as previously proposed, is unfair for smaller businesses as it means they forgo a material portion of their revenue.[58]	Agree. All maximum allowable revenue figures are expressed as $m to three decimal places.

[54] Powerco, *Draft Decision on Initial DPPs for Gas Pipeline Businesses*, 7 December 2012, p17; and Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012, p6, p21.

[55] MDL, *Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 7 December, p. 3.

[56] GasNet, *Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 7 December 2012, pp4-5; Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012, p29.

[57] Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012,p21

[58] Gasnet, *Submission on Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, 7 December 2012, p8.

10	Recovery of costs for balancing gas	MDL submitted that it expects that the costs or credits for balancing gas after 30 June 2013 will not be taken into account when assessing compliance with the default price-quality path.[59] However, Vector submitted that suppliers should be allowed to recover these costs. In subsequent discussions, Vector indicated that these costs were likely to be reflected in its current prices. Consequently, Vector indicated it would not need to recover these costs under the default price-quality path.	Agree. No costs or credits for balancing gas prior to 1 July 2013 will be recoverable under the default price-quality paths. Balancing gas costs and costs for unaccounted for gas incurred prior to the regulatory period are therefore treated no differently to any other costs. Suppliers had the opportunity to recover these costs when they set their prices prior to the regulatory period.
11	References to starting prices	Vector submitted that the schedules in our 8 February 2012 draft determination for starting prices do not contain any prices (as “prices” is defined) and instead set out the maximum allowable revenues.[60]	The term starting prices is not defined in the determination and is intended to reflect how the term is used in the Act. The definition of price in the Act includes revenues.

[59] MDL, *Submission on technical consultation for the default price-quality paths for gas pipeline services*, 13 February 2013, p2.

[60] Vector, *Implementation of the Default Price-Quality Path for Gas Pipeline Services*, 18 February 2013, p9.

12	Treatment of balancing gas as a recoverable cost	Greymouth Gas commented that: • costs of balancing gas must not be double counted in operating expenditure and recoverable costs; • Vector affects, but has no incentive to help improve, the allocation of balancing costs to shippers; and • the Gas Industry Company is also carrying out work in this area.[61]	The treatment of balancing gas, or recoverable cost in general, ensures that costs are not double counted. This is because the costs are not recognised in our forecasts of operating expenditure, ie, they are not included in operating expenditure disclosed for the base year, which is the amount that is then projected forward. Over time, we may consider revising our approach in future depending on feedback from interested parties. For example, we invite feedback on whether Vector's actions are causing the inefficient recovery of balancing gas costs from shippers. We will also maintain a watching brief on the work being carried out by the Gas Industry Company.
13	Balancing gas approval process	We received a number of submissions on the approval process that we previously proposed for including unrecovered balancing gas costs or credits as a recoverable cost.	There is no upfront approval process required before the compliance statement is provided. For balancing gas costs to be treated as a recoverable cost, they must meet the compliance requirements in clause 11.4 and 11.5 of the transmission determination. In accordance with clause 11.2(c) and (d) of the determination, the compliance statement must include a director's certificate and auditor's report.

[61] Greymouth Gas, *RE: Transmission Services Default Price-Quality Path Determination 2013*, 15 February 2013.

Attachment D: Algebraic derivation of formulas in the determination

Purpose of this attachment

D3 This attachment sets out the key derivations to the formulas that appear in the determination.

Calculating allowable notional revenues using maximum allowable revenue

D4 The calculation of initial allowable notional revenue values for all suppliers is based on:

D4.1 maximum allowable revenue from our starting price model;

D4.2 changes in constant price revenue for two years; and

D4.3 for MDL, the pass-through and recoverable costs for that assessment period.

D5 Box D1 explains how we have derived the expression we use in equations (6), (7) and (11).

Box D1: Maximum allowable revenue used to calculate allowable notional revenue

Maximum allowable revenues can be expressed in terms of allowed prices multiplied by a set of corresponding quantities. As we don't limit the amount of pass-through and recoverable costs that are passed on to consumers, we remove the pass-through and recoverable cost components that suppliers include in their prices. This is represented in A(1).

A(1) $MAR \equiv \sum_i P_{i,t} Q_{i,t} - (K_t + V_t)$

Adding pass-through and recoverable costs to both sides of A(1) gives:

A(2) $MAR + (K_t + V_t) = \sum_i P_{i,t} Q_{i,t}$

We can then divide both sides of A(2) by ΔD (which is the change in constant price revenue or change in quantities for the years t and t-1, $\Delta D = \Delta Q_{i,t-2} \Delta Q_{i,t-1}$).

A(3) $\dfrac{MAR + (K_t + V_t)}{\Delta D} = \dfrac{\sum_i P_{i,t} Q_{i,t}}{\Delta D}$

The effect of ΔD is that quantities on the right side of A(3) are adjusted by the change in quantities for two years. This is represented by:

A(4) $\dfrac{MAR + (K_t + V_t)}{\Delta D} = \sum_i P_{i,t} Q_{i,t-2}$

Subtracting pass-through and recoverable costs to both sides of A(4) gives:

A(5) $\dfrac{MAR + (K_t + V_t)}{\Delta D} - (K_t + V_t) = \sum_i P_{i,t} Q_{i,t-2} - (K_t + V_t) = ANR_t$

The left side of A(5) is how MDL calculate its allowable notional revenue for the 2013/14 pricing year, while the right side is how we specify notional revenue.

For all other suppliers A(5) is further simplified. This is because pass-through and recoverable costs relating to the final quarter of the 2012/13 pricing year may only be included in notional revenue from 2013/14 pricing period. The values for Kt and Vt are therefore nil and A(5) reduces to A(6). The left side of A(6) is how allowable notional revenue for the 2012/13 pricing year is calculated, while the right side is how we specify notional revenue for that year.

A(6) $$\frac{MAR}{\Delta D} = \sum_i P_{i,t} Q_{i,t-2} = ANR_t$$

Actual growth rates may differ from our constant price revenue forecasts

D6 If suppliers are able to grow quantities faster than implied by our constant price revenue forecasts, suppliers will earn higher revenues than we projected (and vice-versa).

Our assumptions for how distributors will calculate allowable notional revenue for 2014

D7 Box D2 explains how we have set the formula that distributors will use to calculate allowable notional revenue for 2014, as set out in equation (12). As a basis, the derivation uses the enduring formula that would ordinarily be used to calculate allowable notional formula for each pricing period following a reset.

Box D2: Derivation of allowable notional revenue for 2014

For pricing periods that follow an adjustment to a supplier's starting prices, we generally calculate allowable notional revenue using the following equation:

B(1) $$ANR_t = (\sum_i P_{i,t-1} Q_{i,t-2} - (K_{t-1} + V_{t-1}) + (ANR_{t-1} - NR_{t-1}))(1 + \Delta CPI)(1 - X)$$

In our October 2012 paper we used B(1) as the basis to calculate allowable notional revenue for 2014, given by B(2) below. The only major difference between B(1) and B(2) being a 0.25 multiplication factor of $ANR_{2013} - NR_{2013}$ to reflect 3 months of under/over recovery for the period 1 July 2013 to 30 September 2013, rather than a full year.

B(2) $$ANR_{2014} = (\sum_i P_{i,2013} Q_{i,2012} - (K_{2013} + V_{2013}) + 0.25(ANR_{2013} - NR_{2013}))(1 + \Delta CPI)(1 - X)$$

It is inappropriate to use B(2) to calculate allowable notional revenue for 2014, however, as the term $P_{i,2013} Q_{i,2012}$ refers to a set of prices that were charged by a supplier and corresponding quantities that are not consistent with the starting prices that we have set.[62] We therefore want to find an equivalent expression to substitute into B(2).

If allowable notional revenue for 2013 equals notional revenue for 2013, we can express this as:

[62] This was a matter raised by Vector in its submission; refer: Vector, *Submission to the Commerce Commission on Revised Draft Decision on the Initial Default Price-Quality Path for Gas Pipeline Services*, 6 December 2012, p.20.

B(3) $ANR_{2013} = NR_{2013}$

This allows allowable notional revenue for 2013 to be expressed in terms of the prices charged by the supplier in 2013, the corresponding quantities from 2011, and pass-through and recoverable costs for 2013:

B(4) $ANR_{2013} = \sum_i P_{i,2013} Q_{i,2011} - (K_{2013} + V_{2013})$

Rearranging B(4) gives B(5) below. Note that values for terms on the right-hand side of B(5) are known.

B(5) $\sum_i P_{i,2013} Q_{i,2011} = ANR_{2013} + (K_{2013} + V_{2013})$

The relationship between $P_{i,2013} Q_{i,2011}$ and $P_{i,2013} Q_{i,2012}$ can be expressed by B(6) below, where CPR_{2012} is the constant price revenue growth for 2012.

B(6) $(\sum_i P_{i,2013} Q_{i,2011}) CPR_{2012} = \sum_i P_{i,2013} Q_{i,2012}$

Rearranging B(6) gives:

B(7) $\sum_i P_{i,2013} Q_{i,2011} = \frac{\sum_i P_{i,2013} Q_{i,2012}}{CPR_{2012}}$

Substituting the right-hand side of B(7) into B(5) gives:

B(8) $\frac{\sum_i P_{i,2013} Q_{i,2012}}{CPR_{2012}} = ANR_{2013} + (K_{2013} + V_{2013})$

Multiplying both sides B(8) by CPR_{2012} gives:

B(9) $\sum_i P_{i,2013} Q_{i,2012} = (ANR_{2013} + K_{2013} + V_{2013}) CPR_{2012}$

The right-hand side of B(8) can then be substituted for $P_{i,2013} Q_{i,2012}$ in B(2) to give B(10). We published this equation as part of our 8 February 2013 consultation:[63]

B(10)

$ANR_{2014} = ((ANR_{2013} + K_{2013} + V_{2013}) CPR_{2012} - (K_{2013} + V_{2013}) + 0.25(ANR_{2013} - NR_{2013}))(1 + \Delta CPI)(1 - X)$

This equation has been further simplified. Firstly, pass-through and recoverable costs for 2013 are nil. Secondly, the revenue differential term, which appears as ANR2013-NR2013 in B(10) is only required to prevent allowable notional revenue from being influenced by a supplier's pricing decisions in the preceding pricing year. However, as the prices charged by suppliers in 2012/13 are not used in B(10), then the revenue differential term is not appropriate. This means B(10) simplifies to B(11).

B(11) $ANR_{2014} = (ANR_{2013} \times CPR_{2012})(1 + \Delta CPI_{2014})(1 - X)$

63 The equation has been corrected for a misplaced bracket, which was identified by Vector. Refer: Vector, *Implementation of the Default Price-Quality Path for Gas Pipeline Services,* 18 February 2013.