Submission on Initial Default Price-Quality Path for Gas Pipeline Businesses: Issues Paper

14 May 2010

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Introduction

1. Vector welcomes the opportunity to provide this submission to the Commerce Commission (Commission) on the *Initial Default Price-Quality Path for Gas Pipeline Businesses Issues Paper*. We responded on 30 April 2010 on the Form of Control section. This submission responds to the remaining sections of the consultation paper.

2. Reticulated gas is a discretionary fuel that competes with electricity and LPG and there is the potential for significant gas safety issues if New Zealand safety standards are not properly adhered to. As a result, non-regulatory considerations are very important drivers for the provision of safe, reliable, good quality and efficiently priced gas pipeline services. The Commission should be mindful of these points when making regulatory decisions for gas pipeline businesses ("**GPBs**") as the net benefits of regulation may be more limited than in the electricity lines sector.

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Nature of Gas Pipeline Services

4. Vector agrees that gas transmission and gas distribution are sufficiently different to warrant the setting of separate Determinations. For example, as noted at the Workshop on Opex/Capex Requirements for CPP Proposals on 31 March, Vector's gas transmission business is characterised by relatively low baseline expenditure and infrequent large investments, which can often be both unexpected and several times higher than normal capex levels. In contrast, Vector's gas distribution businesses do face unexpected new investments from time to time but these are usually a small addition to an already significant capital expenditure programme.[1]

5. Vector agrees with the Commission's proposed demarcation point between transmission and distribution (i.e. that the gas transmission system be defined by reference to the definition in the *Gas Governance (Critical Contingency Management) Regulations 2008)*. The proposed boundary within the gate station is also acceptable.

[1] Transcript of Input Methodologies Opex/Capex Requirements for CPP Proposals Workshop (day two), 31 March 2010, page 12.

Structure of the Initial DPP

6. Vector considers that a combined price-quality path that allows for linking price to quality, through the S-factor approach, is clearly the optimal solution. It would drive improvements in quality provision and would be consistent with providing for greater certainty, since GPBs would be able to make explicit price-quality tradeoffs rather than be subject to an uncertain penalty-based regime.

7. Vector submits that the Commission should use the time available before the start of the DPP in 2012 to dedicate resources to developing an s-factor mechanism for GPBs in time for the reset. An Initial DPP that consists of a separately assessed price path and quality standards is a second-best option.

Pricing arrangements prior to initial DPP

8. Vector disagrees with the Commission's proposed approach to assessing the need to apply clawback for GPBs that are <u>not</u> subject to control under the Commerce Act (Vector Natural Gas Services) Authorisation 2008 ("**Gas Authorisation**"). However, Vector does agree that services controlled under the Gas Authorisation should not need to demonstrate compliance with the CPI Criterion.

9. Section 55F(2) of the Commerce Act 1986 introduced regulatory requirements allowing for clawback of revenues derived from weighted average price changes in excess of the movement or forecast movement in CPI in the period from 1 January 2008 to the date that a determination is made. Unfortunately the Act does not provide any detail on how such requirements would be tested or implemented. In the absence of clear regulatory guidelines, Vector developed an approach to setting prices that was derived from other regulatory weighted average price control decisions. Vector adopted the general terms of the Gas Authorisation as the most recent regulatory guidance at that time. Vector wrote to the Commission on 10 August 2009 to outline our intended process of ensuring that our annual price increases were at less than CPI. As the process was based on the Gas Authorisation approach to demonstrating compliance with a price path, it was reasonable to assume it would be acceptable to the Commission.

10. Vector is therefore disappointed that the Commission appears to have disregarded our efforts to date to maintain our price increases for our non-controlled gas pipeline businesses at a rate of less than CPI (as effectively required by section 55F(2)) and to keep the Commission informed of our approach. For the Commission to depart from past practice, not respond to information provided to it

by suppliers and develop an entirely new approach half-way through the period from 1 January 2008 and the date of the Determination is to increase the risk of breaches that are solely due to technical methodological issues; it also creates uncertainty for suppliers. The Commission needs to justify and explain its decision for departing from previous regulatory decisions and rejecting Vector's proposed approach.

11. More broadly, the Commission is proposing to apply claw-back of revenue earned on the basis of an Assessment Methodology that was not notified to suppliers before the revenue was earned. In our view, this is a breach of natural justice. Despite our efforts to engage with the Commission earlier on this issue, the Commission has left it to more than half way between 1 January 2008 and the date of the determination to consult on a "proposed" Assessment Methodology. Because an emerging views paper is not scheduled to be released until March 2011 and a draft decisions paper until June 2011, suppliers will not have any certainty over the assessment methodology to be used until nearly the end of the period covered by section 55F(2). To apply claw-back under such circumstances is not reasonable; especially where suppliers have used methodologies based on previous Commission decisions.

12. Vector also disagrees with the Commission's proposal to compare the change in a GPB's weighted average prices with the change in CPI in four distinct periods, with a breach in any one of those periods constituting grounds for clawback under section 55F(2). Section 55F(2) is clear that the period in question during which prices must not rise by more than CPI or be subject to clawback, is from 1 January 2008 and the date the Determination is made. The Commission's reasoning for conducting the final assessment as at 1 October 2011 is understandable, as this is the last date that prices are likely to be changed prior to the Determination being published, but there is no reason to also conduct assessments for periods ending 1 October 2008, 1 October 2009 and 1 October 2010.

13. Vector considers that if a supplier increased prices by more than CPI over one of the periods the Commission specifies but by less than CPI in another period so that overall the price rise was at or below CPI over the period from 1 January 2008 until the date of the Determination, the Commission would have no legal right to apply clawback. It is clear from section 55F(2) that the total price increase compared to the total CPI increase over the total period of time is the relevant consideration.

14. In addition, the use of quantities from the year ending June 2010 for all of the pricing periods from 1 January 2008 onwards is likely to increase the risk of

technical breaches. This is because volume consumption for the year ending June 2010 was not known at the time of setting prices for the earlier pricing periods and a change in the composition of demand across customer groups could create technical breaches.

15. However, Vector does note the Commission's willingness to permit GPBs to propose amendments to the Commission's Assessment Methodology to demonstrate that the CPI criterion has been met where it is not practical to apply the Assessment Methodology and the proposed amended methodology has the same effect as the Assessment Methodology. As a solution to the difficulties (discussed above) with the Commission's proposed Assessment Methodology, Vector recommends that the Commission goes further and undertakes to accept alternative methodologies (especially those based on previous Commission decisions) where the effect of the alternative methodologies is the same as the Assessment Methodology – i.e. prices will not have increased by more than CPI over the period from 1 January 2008 to the date of the Determination. There should be no need to demonstrate that it is not practical for the supplier to apply the Assessment Methodology.

Productivity analysis

16. Vector strongly agrees that the results of any productivity analysis should not be applied mechanistically. We also support the Commission's intention to use Total Factor Productivity ("**TFP**") analysis to establish the rate of change for the gas transmission and distribution DPPs. Vector has seen and supports Powerco's comments on the Productivity Analysis.

17. We agree with the Commission that the small size of the sample of GPBs may well limit the robustness of any analysis of NZ gas sector productivity. However, a bigger issue may be a lack of reliable and robust data. While a New Zealand gas sector productivity study is preferred, we agree that indirect approaches may be necessary. One reasonable indirect approach would be to use the productivity analysis the Commission has conducted for the NZ electricity distribution sector.

18. While we agree with the Commission's intention to attempt to use a range of methods to develop a productivity analysis for the New Zealand gas pipelines sector, Vector suggests that the small size of the sector and the lack of robust available data may mean that none of the approaches can successfully produce robust results. One option for this reset could be to set a rate of change equivalent to that used for the electricity distribution default price path for the first regulatory period, reform information disclosures to improve available information gathered

over that period and use the information gathered to conduct a robust productivity analysis for the regulatory period starting in 2017. While this is not ideal, it may be the most practical option available in the circumstances. The paucity of data and the lack of consensus regarding the optimal TFP methodology (the Economic Insights productivity analysis for the electricity distribution sector remains controversial and Vector continues to support the use of the previous "B-factor" approach) means there would be real doubt regarding the credibility of results of any productivity analysis of the gas pipeline sector.

Quality standards

19. Vector notes that available quality data for GPBs is limited when compared to electricity distribution businesses and that it varies between suppliers.

Quality standards for distribution

20. While 15 quality measures (four with threshold limits) were set for Powerco and Vector's Auckland distribution network under the Gas Authorisation, in our view some would be more suitably monitored through information disclosure and some are not particularly appropriate measures of the quality of supply of a GPB. We recommend that a maximum of two quality standards each for distribution and transmission be set (as is done for electricity distribution businesses) to ensure a strong focus on the most important quality measures. Given the strong penalties available for breaches of quality standards, the standards should focus on the key issues only.

21. Vector recommends that the following quality standards are set for gas distribution:

- Publicly Reported Escapes ("**PRE**")
- Responses to Emergencies.

22. Both of these are currently threshold targets under the Gas Authorisation so Vector and Powerco have experience of reporting against these measures and they both relate to public safety, which is a critical consideration for a gas network.

23. No material deterioration in the number of confirmed PRE per annum on the network is a well established performance measure that is used throughout the New Zealand gas sector.

24. Responses to Emergencies (i.e. proportion of emergencies responded to within one hour) is a valid performance measure of a crucially important part of the service provided by a gas distribution business.

25. Vector does not consider that SAIDI or SAIFI are particularly useful measures when applied to gas distribution businesses[2]. SAIDI and SAIFI are good measures for electricity distribution businesses as, when a fault occurs on an electricity network, good practice is to isolate that fault and this will require the disconnection of some customers. A measure of how often this happens and how long customers are disconnected for is therefore a useful indicator of the quality of supply on an electricity network. For gas, in contrast, even where there is a fault the supplier will make every effort to avoid disconnecting customers wherever possible, because isolating the supply can cause additional safety risks through turning customers off and relighting customers after the event. Many gas network interruptions also do not give rise to an interruption in the delivery of gas to customers due to residual pressure in the network (line pack). The relationship between a gas network interruption and disruption to the customer service is therefore poorly defined, leading to a volatile and misleading measure.

26. In addition, the average historic levels of SAIDI and SAIFI for gas are very low and the data much less robust than for electricity. The lack of historical data may mean that any standard deviation-based deadband for SAIDI or SAIFI would be very large. Table 1 below is a coarse analysis of Vector's unplanned SAIDI and SAIFI for our gas distribution networks in the most recent five years. It has not been prepared to the standard of our disclosure requirements, but does provide an indication of the nature and volatility of these measures for gas pipeline businesses.

Table 1: Vector's gas distribution network (both Vector Auckland and ex-NGC networks) unplanned SAIDI and SAIFI for the past five years

Regulation Year	SAIDI[1]	SAIFI
2008/09	432	3.7
2007/08	1827	6.3
2006/07	215	3.4
2005/06	243	3.1
2004/05	71	2.2
Average	557	3.7
SD	645	1.4
[1] SAIDI thousandth-minutes		

[2] If SAIDI and SAIFI are not used to set quality standards, they could be reported under information disclosure.

27. The substantial SAIDI and, to a lesser extent, SAIFI recorded in 2007/08 was due to a large third party event which caused damage to the network. Mostly as a result of this event, it can be seen that the standard deviation of SAIDI exceeds the 5-yearly average; so standard deviation may not be a very useful basis for developing a dead-band to avoid technical breaches. SAIFI is more stable as the long duration of third party damage events is not factored in.

28. If SAIDI and/or SAIFI are used as quality standards, Vector recommends that they be limited to unplanned events only (otherwise suppliers will have an incentive to reduce planned outages which would create safety risks). We also recommend that consideration be given to establishing an extreme event criterion in the gas context. Extreme weather events will have less of an impact on gas networks than on electricity networks but (as shown in the discussion above) the generally low level of SAIDI and SAIFI on gas networks means that a large scale third party event could have similar effects and create technical breaches of a quality standard.

29. The remaining quality performance indicators created for the Gas Authorisation should not be used to set quality standards. Instead they should be reported under information disclosure or be removed from any reporting obligation. We discuss each of them briefly below.

- CAIDI – could be calculated, but is not necessary if SAIDI and SAIFI are reported.
- Outage events and Outage events caused by third party damage – the "five customer" measure is meaningless and outage events are already captured under the SAIFI measure. Vector recommends this reporting obligation be deleted.
- Third party damage events is not a good measure of company performance as these events are almost entirely outside of the GDBs control. However, it could be reported through information disclosure.
- Number of leaks detected by the GDBs should not be a quality standard as it would create a perverse incentive for the GDBs not to look for leaks. However, it could be reported through information disclosure.
- Poor pressure due to network causes should be reported in information disclosures. It would be difficult to develop a meaningful target measure for this.
- Answering telephone calls, in our view, is relatively trivial and could distort the quality of customer service as it only measures how quickly the telephone is answered and has no relation to the quality of service the customer receives after the telephone is answered. Vector recommends this reporting obligation be deleted.

- Number of complaints received is best recorded in information disclosure.
- Unaccounted for gas ("**UFG**") is not a relevant measure for GPBs. The Gas Industry Company ("**GIC**") has ascertained that technical losses[3] of gas are usually inconsequential (below 0.5%)[4]. Non-technical UFG arises from a variety of sources including theft, inaccurate meters, meter reading errors, human error, data transfer errors, database system errors, calculation/conversion errors, rounding errors and inaccuracies in the billing methodology (including estimation errors) but these are generally outside the control of GPBs. GIC has concluded that in New Zealand, non-technical errors usually account for the bulk of UFG. To this end, UFG can be thought of as an indicator of the quality of the systems of all parties sharing a distribution network, but is not a good indicator for GPBs alone.

Quality standards for transmission

30. Vector recommends that different quality standards are set for transmission than for distribution given the significant physical and customer differences between the two services.

31. Vector recommends the following quality standards for transmission:
- Compressor uptime. This is a measure of compressor availability and is recorded internally within Vector. Any measure will need to specify if it refers to both scheduled and unscheduled downtime, or just unscheduled. Also to consider whether all compressor downtime is recorded or only where it results in a failure to supply gas (i.e. in an n-1 situation, compressor failure may not impact on customers if the second compressor is functioning). Vector suggests the measure refers to all unscheduled compressor downtime, irrespective of whether it results in outages as a movement from n-1 to n does signify a reduction in system security.
- Failure to meet pressure thresholds. This is a measure of the number of times in which pressure thresholds fail to be met and supply is therefore not provided to downstream customers. It is therefore similar to SAIFI.

32. With these measures, suppliers of gas transmission services can demonstrate they are providing gas with good pressure, and system compressor availability. They are two good indications that the system is being maintained and operated efficiently. The inherent problem with both measures is that compliance uptime and acceptable pressure are usually fully met and setting a

[3] Losses that are made up of leakage from gas distribution pipelines and gas used to operate the pipelines; these are notionally within the control of the Gas Distribution Business.
[4] *Allocation of Unaccounted for Gas*, Maunsell Ltd (for the Gas Industry Company), June 2007, pp 12-13.

meaningful standard based the very few events per regulatory period where they fall below desired levels is likely to be a statistically challenging task.

Assessment against and compliance with quality standards

33. Given the relatively poor data available for quality indicators for GPBs and that any standard chosen will be new for at least some suppliers, some form of buffer or dead-band or other mechanism to avoid technical breaches is essential. A 'hard' limit which indicates a failure to meet the quality standard in all circumstances would be difficult to justify for this regulatory period and the Commission should take a flexible approach when assessing compliance.

Data requirements

34. The gas distribution and gas transmission sectors in New Zealand have not been subject to the same degree and extent of detailed regulation and regulatory intervention as their electricity counterparts. The Gas Authorisations for Powerco's gas distribution business and Vector's Auckland gas distribution network were a step towards greater regulation but did not cover the full industry and have not been in place for as long as detailed regulation of electricity distribution businesses. As a result the extent, robustness and historical range of available data for gas transmission and distribution are significantly less than that experienced in electricity. Vector recommends the Commission take a pragmatic approach for this reset to setting a rate of change and quality standards as it will have to rely on unavoidably incomplete data.

35. Overall, Vector recommends that the Commission focus on developing good information disclosure requirements for GPBs so the next reset can be based on good quality information. For this reset, the Commission should gather what information it can, but it must be careful to ensure that the costs to suppliers of providing the previously undisclosed information do not outweigh the benefits.

36. Given the poor quality of data available for GPBs due to deficiencies in the Gas Information Disclosure requirements, we support the Commission's efforts to gather more and better information. However, information requests must be reasonable and the Commission should recognise that historical data that has not previously been required for disclosure may not be available or may not be available in the form or level of aggregation that the Commission wants. Should the Commission make such requests, Vector strongly recommends that suppliers are consulted on the nature of the requests before they are made and are given plenty of time to respond.

37. The Commission has asked whether Vector continues to collect separate disclosure data for the ex-NGC gas distribution network. Information disclosure for our gas distribution networks is consolidated in accordance with advice from the Ministry of Economic Development. We do still collect information that is disaggregated by the two historic distribution networks and this disaggregated information could be provided. However, the Commission must recognise that to make this information available would be a complex process and, due to the assumptions that would need to be made, the final numbers may not sum to the previously disclosed totals.

38. In addition to our reporting under the Gas Information Disclosure requirements, Vector gathers additional data on our gas pipeline businesses, but these are collected for internal purposes and are not always of an auditable standard. They are also not necessarily in a format or at a level of disaggregation that may be useful to the Commission. To disaggregate the data we collect to provide numbers at the level of individual gas pipeline businesses would be a complex and lengthy task and the results may not be fully accurate given the need to re-interpret historical data.

39. In Table 2 below, we discuss the availability of the information already identified by the Commission in Table 4 in the consultation paper:

Table 2: Availability of indicative list of data for informing the Initial DPP

Item	Available?
All information noted by the Commission as currently being disclosed	Yes. However, as noted above, to disaggregate previously disclosed Vector gas distribution data between the Auckland network and the ex-NGC network would be a complex task and the final numbers may not sum to previously disclosed totals.
Pipeline length (broken down by material, diameter and pressure)	Yes. Vector estimates we can provide this information for the past ten years.
District regulating stations (number)	Yes. Vector estimates we can provide this information for the past ten years.
SAIFI	Yes, for distribution. Vector estimates we can provide this information for the past ten years, although not audited. Older data are likely to be less robust.
Public reported escapes	Yes, for distribution. Vector estimates we can provide this information for the past ten years, although not audited.

	Older data are likely to be less robust.
Capital expenditure	Yes. Vector estimates we can provide this information for the previous five years. However, historical data series were gathered under different regulatory regimes and may not match current levels of precision. In compiling data to meet any requests, it is likely that some assumptions will need to be made to provide the information the Commission seeks. In general, the older data will be less reliable.
Regulatory asset base	As discussed in detail in Vector's submissions on input methodologies, the 2003 ODV valuations do not provide an accurate and robust basis for price/revenue regulation purposes. There is therefore no suitable valuation published for the ex-NGC networks. The 2005 ODV conducted for the Vector Auckland network is a more reasonable valuation.
Regulatory depreciation	Yes. But see comment above regarding capital expenditure as it applies equally to these points.
Revaluations	
Acquisitions and disposals	

Annual assessment and regulatory periods

40. As the Commission is aware, the complexity regarding assessment and regulatory periods is created by the following factors:

- The legislation contemplates (although does not require) that the regulatory years for gas pipeline services will begin on 1 July each year – section 55E(2) requires that the section 52P determination specifying how DPP and CPP regulation will apply to GPBs be made as soon as practicable after 1 July 2010;
- The control of Vector's Auckland gas distribution network and Powerco's gas distribution network will expire on 1 July 2012;
- Maui Development Ltd sets prices that apply annually from 1 July;
- The rest of the gas sector (Vector transmission and all gas distribution businesses) set prices that apply annually from 1 October.

41. To resolve these difficulties and apply a single assessment period for all gas pipeline businesses, the Commission proposes two options:

(1) Set a July to June assessment period and require GPBs to demonstrate compliance on that basis, irrespective of their pricing years. Thus for suppliers which set prices from 1 October each year, they would have two sets of prices for each assessment period.

(2) Set an October to September assessment period in most years of the 5-year regulatory period. But also partial assessment periods of 1 July 2012 to 30 September 2012 and 1 October 2016 to 30 June 2017. Alternatively, set a shorter regulatory period of four years and three months so only the first partial assessment period is required.

42. Vector does not believe either option represents an optimal way forward. As default/customised price-quality regulation is intended to be low cost, it seems perverse to require suppliers to incur additional costs to comply with (and demonstrate compliance with) partial year assessment periods simply to deal with an administrative oddity regarding the dates set out in legislation and the pricing years of suppliers. We cannot identify any consumer benefit likely to be created from the options put forward by the Commission.

43. Vector, like most suppliers of gas pipeline services, sets its prices in October each year. We note that October-September is the traditional pricing year (even in the United Kingdom) and from the perspective of our business, setting prices in October is preferable to setting prices in July, because setting prices in July would mean a price change in the middle of winter. Setting prices in October enables us to set prices for the following year with better knowledge of experienced demand and volumes for the previous winter and can thus set more efficient prices for the coming year. Vector therefore has a strong preference for setting prices on 1 October. However, if the Commission was to choose to start the assessment periods on 1 July, Vector may well be forced to change its pricing year as the costs of compliance could otherwise be too great. However, changing the pricing year to begin on 1 July would have several negative consequences.

44. From a customer perspective, a price increase in July equates to a price increase at the time when demand is the greatest. This would be likely to have negative impacts on household's ability to budget for their gas bills.

45. The other benefit of a pricing year beginning on 1 October for firms that supply both gas and electricity (i.e. Vector and Powerco) is that it is six months after the start of the electricity pricing year on 1 April. This enables suppliers to spread the work of price development and regulatory compliance relatively evenly over the year, reducing the overall costs of regulatory compliance.

46. In addition, a move away from an October-September pricing year would be likely to cause disruption for retailers and across the wider industry. Similar to the situation for distributors discussed above, major retailers of electricity are also retailers of gas and the six month gap between making price changes for electricity and price changes for gas enables them to manage this workload efficiently. A three month gap may well increase costs.

Alternative option

47. As an alternative option, Vector recommends that the Commission set the regulatory period for all gas pipeline services to start from 1 October 2012 with an end date of 30 September 2017. While this approach would potentially inconvenience MDL, it would fit with the pricing years of all other suppliers of gas pipeline services. We feel this can be justified as the fewer suppliers who are inconvenienced the lower the overall cost of implementation will be.

48. Under section 55H, the expiry of the Gas Authorisation control order must be treated as if it were the expiry of a customised price-quality path. Section 53X states that when a customised price-quality path ends, the supplier is subject to the default price-quality path that is generally applicable. Vector does not see this as a barrier to our proposed approach as it does not require that a default price-quality path is in place on the date of the expiry of the control order. While this approach would mean that Vector's gas distribution Auckland network and Powerco's gas distribution network were uncontrolled for a period of three months, the short space of time and the complexity of making price changes (see comments above) mean that suppliers would not change prices during this time.

49. If the Commission does not accept that recommendation, Vector's second preference would be for the alternative suggestion within Option 2 (i.e. a shorter regulatory period of four years and three months with assessment periods beginning on 1 October every year from 2012 and regulatory periods beginning on 1 October every five years from 2016).

50. The Commission asked if suppliers undertake any mid-year price changes. Vector does not typically undertake any mid-pricing year price adjustments. We actively avoid mid-year price changes on the North Island distribution network and totally avoid mid-year price changes on the Auckland distribution network. Any mid-year price change would therefore create administrative costs and complexities that are not faced at present. We are unable to identify any direct benefit to suppliers or consumers that would be created by such a change in approach.