



Submission 2

Initial Default Price-Quality Path

For Gas Pipeline Businesses

**Commerce Commission
Submission by
Maui Development Limited**

14 May 2010

1. Background

Maui Development Limited (**MDL**) welcomes the opportunity to make a submission on the “Initial Default Price-Quality Path (**DPP**) for Gas Pipeline Businesses” Issues Paper (**Issues Paper**) that was distributed by the Commerce Commission (**Commission**) on 12 April 2010¹.

MDL notes that the Commission is looking to implement a standardised DPP for Gas Transmission Businesses (**GTB's**). Should this DPP structure not be suitable for MDL, MDL will be required to submit a Customised Price Path (**CPP**) proposal to cater to its specific needs.

This submission is the second MDL submission written in response to the Issues Paper. While the first submission addressed “Form of Control” specifically², this submission covers all other aspects in the Issues Paper that were not addressed in the first submission.

Please note that MDL’s position in relation to the Issues Paper may change as a result of further information being provided by the Commission.

The structure of the Submission is as follows:

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¹ Commerce Commission “Initial Default Price-Quality Path for Gas Pipeline Businesses” Issues Paper, 12 April 2010

² MDL, “Form of Control”, Commerce Commission Submission by MDL, 30 April 2010

2. Structure of Initial DPP

MDL agrees with the Commission's initial view to implement separate price path and quality standards. This is seen as preferable to any attempt to adopt an integrated approach where price and quality are linked. The main reason for MDL's support of the Commission's view is that it is very difficult to quantify quality on the Maui Pipeline, and in particular it would be difficult to quantify the "relationship between marginal cost and benefit of quality"³.

In respect of gas transmission, there is a limited ability to manipulate quality. The service is either reliable or it is not. The pipeline is either safe or it is not. In MDL's view there would be little valuable application in attempting to identify productivity gains where service quality might be impacted.

MDL agrees that quality standards are important but, because of their "all or nothing" nature, that they should be dealt with separately, as the Commission suggests.

3. Pricing Arrangements prior to Initial DPP

Section 55F(2) for the Commerce Act 1984 (**the Act**) provides for a "claw-back" of tariff increases where suppliers have increased tariffs by more than the Consumer Price Index (**CPI**) since January 2008⁴. Specific details in regards to calculation and implementation of the claw-back are not addressed in the Act. MDL makes the following comments in respect of the claw-back.

- **Pooling of tariffs where there are multiple tariffs:** MDL charges two tariffs. Tariff 1 is based on gigajoule kilometres (**GJ.km**) transported and is charged in order that MDL earns its regulated return. Tariff 2 is based on gigajoules (**GJ**) transported and does not take into account distance travelled. Tariff 2 is utilised to recover operating expenditure. MDL also plans to introduce a tariff 3 which is intended to be utilised for the funding of balancing gas related costs. As noted in previous submissions, balancing gas costs are considered outside MDL's control and are considered by MDL to be pass through costs. Thus, should Tariff 3 be implemented, MDL would not envisage this tariff being included for the purposes of claw-back calculations.
- If the Commission was to apply the CPI criterion against each tariff separately, it may find that while it calculates the requirement for a claw-back in respect of one tariff, that if the tariffs were combined, a claw-back would not be necessary. ie one tariff increases while the other decreases with the net impact being under the CPI criterion. Thus MDL recommends that tariffs be combined for the purposes of claw-back calculations.

³ Commerce Commission "Initial Default Price-Quality Path for Gas Pipeline Businesses" Issues Paper, 12 April 2010, page 12, para 2

⁴ Commerce Commission "Initial Default Price-Quality Path for Gas Pipeline Businesses" Issues Paper, 12 April 2010, page 11

- **Apply CPI criterion to Actual Revenue:** Given that MDL has requested a revenue cap⁵, MDL strongly believes that the CPI criterion should be applied to revenue rather than price. For an ex post calculation the revenue number used should be actual revenue⁶ rather than forecast revenue as this relates to actual income earned. Calculations should be based on calendar years.
- **Adopt an overall approach:** MDL's tariffs have varied from year to year for a number of reasons related to large changes in the risk-free rate and requirements to allow for under or over-collection in previous years. MDL believes that the Commission should calculate the over recovery/under recovery over the entire five period from 1 January 2008 to 31 December 2012 to determine whether a claw-back is necessary.
- **Consider unique circumstances of each case:** MDL feels that it is important to look into specific circumstances of a supplier's business when determining whether a claw-back is necessary. In terms of MDL's business, the following should be taken into consideration:
 - MDL's tariff wash-up mechanism whereby if it over recovers in one year, in the following year it will refund over recovered monies via tariff adjustment and vice versa. This can be ignored if actual revenue is used in the claw-back calculation.
 - MDL utilizes smoothing adjustments to insulate customers from large changes to tariffs. No adjustment need be made for these if an overall approach over the full 5 year period is used.
 - MDL's gas throughput is volatile. If a price cap were introduced and the claw-back determination were to be based on price rather than revenue earned, the outcome of a claw-back determination would rest heavily on the beginning tariff at the 2008 claw-back starting date. Since MDL's tariff rates take output into consideration, higher or lower output rates will affect the increase or decrease in tariffs from year to year. Thus if claw-back criterion were based on price and not revenue, MDL could be adversely affected.

4. Productivity Analysis

MDL notes that the Commission is required to set out the rate(s) of change relative to the CPI (**X-factor**) that applies to suppliers for the DPP⁷. The X-factor limits the maximum amount by which Gas Pipeline Businesses (**GPB's**) are permitted to increase their weighted average price or revenue. The X-factor and the CPI adjustments combined are known as the CPI-X mechanism (**CPI-X**). While the CPI adjustment is considered to be relatively straight forward, the productivity measure used to calculate the X-factor is considered to be more complex.

⁵ See MDL's "Form of Control" Submission

⁶ Calculated Ex Post

⁷ Section 53P(l) Commerce Act 1986

MDL notes that the Commission intends to utilise Total Factor Productivity (**TFP**) in order to analyze the productivity of suppliers. In 2004, as part of the Commission's Gas Inquiry, the Commission engaged Meyrick and Associates to undertake an analysis of TFP for New Zealand's gas distribution networks⁸.

Given that TFP was not calculated for MDL during the Gas Inquiry, MDL is uncertain as to the exact methodology of TFP calculation. Further information on the method used would be most welcome. Specific areas of uncertainty are; reliance on forecast information and whether there is to be an ex post adjustment; how the TFP is to be calculated; and how TFP will be incorporated into the x-factor.

MDL notes that the TFP that was applied to gas distribution businesses was (roughly) as follows:

| | | |
|------------|-----------|--|
| TFP | = | <u>Change in Outputs</u> Change in Inputs |
| | Outputs = | 1. Throughput 2. Number of Connections |
| | Inputs = | 3. Capital Expenditure 4. Operating Expenditure |

Figure 1: Total Factor Productivity Calculation

MDL is concerned that reliance on data formula of this type has the potential to deliver misleading results. It should be noted that, for MDL's business, there is not necessarily a relationship between inputs and outputs. The following aspects of MDL's business should be considered:

- MDL has a low number of connections, currently 15 in total. There is also a heavy reliance on two customers; Genesis and Methanex. In recent years, new connections have only occurred when new gas sources have been connected to the pipeline. The above formula anticipates that an increase in OPEX and CAPEX costs would lead to new connections. In fact, MDL has very little control over new customers as its Open Access requirements oblige it to offer connections to anyone meeting the technical and financial requirements. The cost of connection is paid by the party requesting it.
- MDL has volatile levels of throughput, partly due to its limited customer base and partly due to its operation of a common carriage regime which is effectively a "pay as you go" system. MDL has virtually no direct control over throughput as it is based on broad economic factors. Throughput has little effect on operating costs, other than for compressor fuel.

⁸ Meyrick and Associates, Productivity Growth in New Zealand Gas Distribution Networks, Report prepared for Commerce Commission, Wellington, 14 May 2004

- Gas supply may be constrained in future, increasing the price of delivered gas and applying downward pressure on throughput regardless of the level of OPEX or CAPEX required.
- CAPEX requirements are lumpy and uncertain for Gas Transmission Businesses (**GTB's**). Furthermore, in terms of capacity upgrades, there is normally a significant lag between CAPEX spending, and a consequential increase in throughput.
- MDL has a high proportion of fixed costs in its cost base whereby it is unable to reduce its cost base in response to reductions in demand. Thus MDL has limited scope to manipulate the inputs in the TFP model. Furthermore, MDL's future OPEX and CAPEX requirements are considered uncertain with a number of costs being outside MDL's control, as shown in the following examples:
 - Uncertain CAPEX and OPEX in relation to the development of the balancing market. Balancing related costs are largely being driven by the Gas Industry Company (**GIC**) who are considering a number of work programs which may have a significant impact on MDL's OPEX and CAPEX, particularly over the next three years.
 - The cost of implementing any change program on the Maui Pipeline business is highly dependant on level of industry cooperation and is thus, in some respects, outside MDL's control. The existing contractual relationships between MDL and its customers convey significant rights on customers and thus relatively straight forward changes can be costly and complex to implement.
 - While the academics tend to anticipate perpetual productivity increases in the TFP model⁹, MDL would expect productivity in some areas to decrease rather than increase. Most of the Maui Pipeline asset is already over 30 years old and as it ages it is anticipated that maintenance costs would increase rather than reduce. Increases in maintenance expenditure above the CPI level are expected.

MDL agrees with the Commission's initial view to adopt a New Zealand Gas Sector based productivity analysis, this being most relevant to the New Zealand market.

MDL agrees with the Commission's initial view in that, while it is sensible to analyze the productivity of suppliers, the results of any productivity analysis should not be applied mechanistically and that each case should be considered within its own merits. MDL has thus provided background on a number of unique circumstances which should be taken into consideration in adoption of the TFP model.

Given that MDL has limited experience with TFP calculations, MDL requests further information as to how TFP is calculated and how this is incorporated into the x-factor.

⁹ Europe Economics, Research into Productivity Growth in Electricity Transmission and Other Sectors, A Report for DTe, 7 March 2006

Quality Standards

In terms of quality standards, MDL currently reports under Gas Information Disclosure Requirements (**GIDR**) regulation. Particular performance indicators that measure quality are: Unaccounted for Gas (**UFG**), unplanned interruptions, Pipeline Curtailment, and Number of Outages.

MDL notes that the Commission has provided an indicative list of quality measures under initial DPP¹⁰. The list consists of SAIDI, SAIFI, Public Reported Escapes, and UFG.

The following provides some background as to how MDL views quality measures under a DPP.

Reliability

Reliability, in terms of MDL's business, measures whether customers are able to transport their required volumes of gas on the Maui Pipeline. Reliability is impacted where:

- There is insufficient capacity on the Maui Pipeline to transport required volumes;
- Where customers flow outside their approved quantities causing curtailment to other customers; or
- Where an interruption causes volumes of gas to be curtailed.

MDL views reliability as an important quality category and it is considered important that reliability is measured in a way that is relevant.

If pipeline capacity is reached and some customers are required to be curtailed, this is a signal that there is a requirement for capital expenditure to expand capacity of the pipeline. In terms of a common carriage regime, such as the Maui Pipeline, curtailment due to capacity limitations can be separately monitored. Should capacity be restricted and new capital expenditure for increased capacity not be forthcoming, this might be seen as a signal that new investment is not adequately incentivised.

Interruptions of the pipeline services may occur where a pipeline or welded party event occurs. This may lead to curtailment of quantities and thus impact reliability of the service. Welded party events, which are included within MDL's current disclosures under the heading "Unplanned Interruptions", are outside MDL's control and the responsibility of welded parties. Thus it is not appropriate to measure the quality of MDL's performance against interruptions that were caused by welded parties. MDL notes that almost all unplanned interruptions are based on welded party events.

Pipeline curtailments are considered relevant to reliability standards of MDL, although there have not been any pipeline events since the commencement of Open Access in 2006. A possible example of a pipeline event is a situation where compressors have

¹⁰ Commerce Commission "Initial Default Price-Quality Path for Gas Pipeline Businesses" Issues Paper, 12 April 2010, page 35, Table 4

failed and curtailments have been made due to the pipeline's reduced capacity to deliver gas.

Balancing is a service provided by MDL which seeks to ensure the reliability of MDL's and Vector's service during interruptions. While balancing gas costs may be directly recovered from the parties that caused balancing gas to be required, there is a possibility of unrecovered residual costs. MDL believes that these costs which are not caused by MDL, should be treated as pass through costs. The Commission should consider the value of reliability of service when determining whether it will allow balancing gas costs to be passed through.

SAIDI / SAIFI

MDL has some concerns over the use of SAIDI and SAIFI statistics. These statistics are relevant to high frequency, low duration events but are not appropriate measures for a transmission pipeline where interruptions are very infrequent but the duration (usually measured as consumer-minutes) can be significant. This is especially true when the time taken to re-establish collapsed gas networks is considered. Based on this it may be more appropriate to measure the pipeline service quality in terms of available capacity.

System Integrity

UFG is seen as an appropriate measure. Because it is a residual which is a function of meter accuracy, it should be assessed in terms of the level of UFG that would be expected given the accuracy of the meters used.

Safety

Safety standards is addressed in a number of existing regulations and inclusion of safety standards in Commerce Act regulation would be a duplication and unnecessary.

Safety standard breaches are very rare on pipelines with fatality rates <1 in 100 years. The target for lost time injury rate (LTIFR) for all personnel working on the Maui Pipeline is 0.

MDL takes the view that safety standards are non-negotiable and it is not recommended that the Commission look to identifying potential productivity efficiencies by raising or lowering the safety standards in place.

Gas Quality

Gas is the responsibility of injecting parties. MDL has an obligation to ensure injecting parties are monitoring gas quality and to respond appropriately in the event that non-specification gas enters the pipeline. The responsibility of parties in terms of gas quality is addressed through contract in the Maui Pipeline Operating Code (MPOC).

Customer Service

It is not recommended that the Commission seek to measure customer service through time to connect to a new customer. MDL has only 15 customers. The time

for connection varies considerably depending on the specific circumstances surrounding each new connection. The process of obtaining a new interconnection can be difficult and lengthy, particularly if a “hot tap” connection is required.

Other customer interfaces vary considerably and a measure such as “response time” is seen as requiring resource to record and the results would be unhelpful.

Conclusion to Quality Standards

MDL is of the view that system integrity and reliability are particularly relevant categories in terms of service quality. However it is very difficult to measure the marginal cost or benefit of increasing or decreasing quality standards.

MDL’s service quality is not seen in terms of degree but is seen to either exist or not exist. MDL is of the view that the Commission should not seek to realise productivity efficiencies where this might result in a reduction of quality standards.

5. Data Requirements

MDL is exempted from current GIDR requirements for providing financial accounts on the basis that MDL is an unincorporated joint venture and as such does not have its own balance sheet. MDL calculates a notional balance sheet for the purposes of applying a building blocks framework for its tariff calculation and uses some of this information in deriving current GIDR performance ratios.

MDL currently employs a full building blocks approach to its calculation of Return on Asset Value and the annual setting of tariffs. While disclosure of these building block calculations is not currently required, MDL does not envisage any issues in providing this or similar information in the future.

In terms of financial information, MDL is able to provide data from the date of the beginning of Open Access, 1 October 2005. Figure 2 below provides a breakdown as to data that MDL see as appropriate for the purposes of having its performance analysed.

| PROPOSED OPERATIONAL EXPENDITURE CATEGORIES |
|--|
| Gas Flow Costs Corporate Overheads System Operations Pipeline Maintenance Rates and Levies Commercial Management Regulatory Affairs |
| PROPOSED CAPITAL EXPENDITURE CATEGORIES |
| SYSTEM ASSET <i>Pipeline</i> <i>Compressor</i> <i>Station</i> |
| NON-SYSTEM ASSETS <i>Office Furniture & Fittings</i> <i>Computer Hardware & Software</i> |
| PROPOSED SERVICE CATEGORIES |
| Transmssion Services New Interconnections Pipeline Balancing Activities |

Figure 2 MDL Proposed CAPEX, OPEX and Service Categories

MDL believes that there should be good reason for requiring any further detail than that recommended. Any further breakdown would be time consuming and without any valuable application. With too many CAPEX or service categories it becomes difficult to match costs to one particular CAPEX or service category. For example, a cost might have both "reliability" and "safety" aspects. If reliability and safety were separate categories there would have to be an allocation rule to allocate portions of expenses to each category. MDL is concerned about having its performance measured by category where the process of allocating costs to categories is arbitrary.

6. Regulatory Periods

MDL prefers Option 1 for assessment period which entails an assessment period from 1 July to 30 June. Option 1 aligns to MDL's tariff year; this will involve minimal disruption to MDL's business operation. However, MDL could change its tariff year to align it to 1 October if there were adequate reasons to do so.

7. Conclusion

- MDL notes that a DPP is the lowest cost form of regulation and as such MDL prefers a DPP structure and will carefully consider whether it can use it.
- MDL agrees with the Commission's initial view to implement separate price path and quality standards rather than adopting an integrated approach where price and quality are linked.

- MDL notes that the Commission may apply a claw-back and believes that methodology used is particularly important. It supports an approach based on actual revenue assessed over the whole 5 year period.
- MDL notes that the Commission intends to measure productivity of suppliers and then adjust the annual price or revenue cap to accommodate expected productivity improvements. MDL notes that Total Factor Productivity (**TFP**) is likely to be utilised as a means of measuring productivity. MDL understands that TFP is widely utilised in utility industries and that the calculation has already been implemented for some New Zealand GPB's. While the calculation appears to be relatively simple, there are aspects of it that do not seem relevant to a transmission pipeline business. Because of the uncertainty as to how the calculation will be applied, MDL requests further information about the application of the TFP methodology, if it is to be used.
- In terms of quality standards, MDL has noted the measures it considers relevant. Quality of service, in terms of safety, is thoroughly addressed via other regulations and should not be visited by the Commission.
- MDL sees reliability as an important quality consideration. MDL considers that it is important that MDL is reliable in delivering the quantities of gas that its customers request. However, most interruptions that occur on the Maui Pipeline arise from actions outside MDL's direct control. This should be acknowledged when measuring MDL's service reliability.
- MDL does not consider that detailed data requirements are necessary. MDL has recommended the level of detail which it considers appropriate and cost effective. MDL is concerned as to the cost of providing detailed disclosure information in category allocations that it considers arbitrary.
- While MDL does not currently provide building blocks detail to the Commission, it sees no problem in providing this information in future.
- MDL recommends that its assessment period be aligned with its current tariff period of 1 July to 30 June, although it does not envisage significant problems in adjusting its tariff timeframes to 1 October if there are good reasons for doing so.

Yours sincerely,

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