



# 2010 Review of MDL's Transmission Pipeline Interconnection Arrangements

December 2010







## **About Gas Industry Co.**

Gas Industry Co was formed to be the co-regulator under the Gas Act.

Its role is to:

- recommend arrangements, including rules and regulations where appropriate, which improve:
  - the operation of gas markets;
  - access to infrastructure; and
  - consumer outcomes;
- administer, oversee compliance with, and review such arrangements; and
- report regularly to the Minister of Energy and Resources on the performance and present state of the New Zealand gas industry, and the achievement of the Government's policy objectives for the gas sector.

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# 1

## Introduction and background

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### 1.1 Purpose

This paper presents the findings of Gas Industry Company Limited's (Gas Industry Co) 2010 review of Maui Development Limited's (MDL) interconnection arrangements. The review assesses the extent to which MDL's arrangements meet the objectives of the Gas Act 1992 (Gas Act) and the April 2008 Government Policy Statement on Gas Governance (GPS).

The paper identifies the areas of MDL's arrangements that could better meet the objectives. We recommend actions MDL can take to enhance its arrangements.

### 1.2 Context for the review

In February 2009, Gas Industry Co published the *Transmission Pipeline Interconnection Guidelines* (the Guidelines). We developed the Guidelines in response to industry participants' concerns about aspects of interconnection with transmission pipelines. The Guidelines set out our view of good interconnection practice and are based on the objectives of the Gas Act and the GPS.

When Gas Industry Co published the Guidelines, we undertook to monitor their effectiveness in influencing the TSO's interconnection services. The purpose was to assess whether transmission system owners' (TSOs') services adequately resolve the industry's concerns with interconnection. If not, Gas Industry Co would consider other options, which might include recommending rules or regulations to the Associate Minister of Energy and Resources (the Associate Minister). That review took place in September 2009. We then undertook to formally assess the extent to which the TSOs' arrangements meet the objectives of the Gas Act and the GPS. The findings of that review are set out in this paper.

The review assesses the interconnection arrangements of both TSOs (Vector Gas Limited (Vector) and MDL). The findings of the Vector review have been published in a separate paper.<sup>1</sup>

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<sup>1</sup> 2010 Review of Vector's Transmission Pipeline interconnection Review, December 2010.

## 1.3 Transmission Pipeline Interconnection Guidelines

### Development of the Guidelines

Industry participants first raised concerns about aspects of interconnection with transmission pipelines during Gas Industry Co's 2006 review of transmission access issues.<sup>2</sup> Discussions between Gas Industry Co and interconnecting parties at that time suggested:

- interconnection processes were poorly defined, so parties seeking interconnection were exposed to uncertainty over project timing, and when key decisions had to be made;
- technical requirements for interconnection equipment changed during the course of projects causing uncertainty, delay, and additional cost; and
- liability and insurance matters were not discussed until late in the process.

Gas Industry Co published the Guidelines on its website for TSOs to consider.

### Objectives of the Guidelines

The Guidelines explain (p1):

As the industry body under the Act, Gas Industry Co may recommend the introduction of rules or regulations to address [the concerns raised in the review of transmission access], and achieve the objectives of the Act and GPS. However, Gas Industry Co considers that it is helpful to first develop guidelines that set out principles, procedures, documentation requirements, and arrangements for addressing disputes. These Guidelines represent Gas Industry Co's view on the features of good interconnection processes. It is hoped that the Guidelines will assist the industry to improve interconnection processes, without the need for further Gas Industry Co review, or possible regulatory intervention.

The Guidelines are non-binding. They are intended to apply to open access pipelines where interconnection arrangements are necessary for offering access on reasonable terms and conditions.

The objectives of the Guidelines are to:

- describe what a TSO's interconnection policy should cover;
- describe the phases of interconnection, what should happen in each phase, and the key decision points;
- establish principles that should apply to the overall provision of an interconnection service, and to each phase of interconnection;

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<sup>2</sup> Papers related to the review are available on our website at <http://www.gasindustry.co.nz/work-programme/transmission-access-framework?tab=723>



- encourage TSOs to adopt consistent interconnection documentation;
- establish clear responsibilities; and
- minimise barriers to entry by promoting transparency and efficiency.

To meet these objectives, the Guidelines proposed principles, procedures, documentation requirements, and arrangements for resolving disputes.

## **1.4 The review process to date**

### **2009 review of interconnection arrangements**

We reviewed the Guidelines' effectiveness in September 2009. Section 2 of this paper summarises the outcomes of that review.

Gas Industry Co found the TSOs had made some changes to their arrangements in response to the Guidelines. But both pipeline owners acknowledged they had further work to do on their interconnection arrangements. We concluded additional time should be allowed for that to occur.

### **Recommendation to the Associate Minister for a further review**

In December 2009 we wrote to the Associate Minister recommending a further review in June 2010. We expected the TSOs to have amended their arrangements in response to our recommendations by then. We indicated the review would formally assess whether MDL's and Vector's interconnection services meet the Gas Act and GPS objectives. If they did not, we would consider other options for improvement, including recommending rules or regulations and issue an Options Paper in 2010.

In February 2010, the Associate Minister wrote to Gas Industry Co accepting our recommendation. However, she noted her disappointment at the relatively slow progress made by MDL and Vector. She asked that, if the second review concluded other options are required, Gas Industry Co issue a Statement of Proposal by December 2010 (rather than an Options Paper as we had suggested). The Associate Minister stated the timeframe was to recognise the importance of interconnection to a well-functioning gas market. She wished to avoid prolonging a process when the industry had been given ample time to adopt best practice.

## **1.5 Recent interconnection activity**

Following the establishment of Maui pipeline open access (in 2005), there have been three new physical interconnections serving six Welded Points established on the Maui pipeline (some physical interconnections are used for multiple Welded Parties). Vector's Frankley Rd interconnection point has been modified to become a bi-directional point. Further interconnections will be subject to the

discovery and development of new gas fields. No new delivery interconnections on the Maui pipeline are expected in the foreseeable future, because of the location of the Maui pipeline.

# 2

## Findings of the 2009 review

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### 2.1 Method

We first reviewed the TSOs' interconnection arrangements in September 2009. The review focussed on documented processes and documentation associated with new interconnections.

The review took the form of structured interviews with representatives from MDL and Vector and an analysis of their documents. The analysis aimed to identify where interconnection arrangements differed from the Guidelines and to assess whether these differences were material from the point of view of policy objectives.

### 2.2 Summary of findings

MDL's interconnection documents were generally well aligned with the Guidelines. The most significant omission was an interconnection policy. An interconnection policy provides an overall framework for the process and improves transparency. The policy should cover the areas listed in the Guidelines (Appendix B). MDL advised its intention to prepare a draft interconnection policy by the end of 2009.

We recommended the interconnection policy include a dispute resolution process in line with sections 3.2 and 3.3 of the Guidelines. Such a process would allow timely resolution of issues arising before the parties entered into an agreement.

MDL's New Interconnection Form allowed for Receipt or Delivery Point interconnections; however, the documents were clearly written for Receipt Points. At Receipt Points, the Interconnecting Party owns the interconnection station, is responsible for the hot-tap design and installation, and reimburses all MDL's costs as a lump sum. Consequently, the documents were unsuited to a new Delivery Point interconnection application from, say, a gas network company. Such a request is unlikely given the location of the Maui pipeline. So it is reasonable for MDL to have interconnection processes and documentation aimed at Receipt Points. Nevertheless, we recommended MDL sets out principles for Delivery Point interconnections in its interconnection policy. We also recommended the policy include further detail and indicative timelines.

**Table 1 Summary of findings of the 2009 review**

<b>Guideline item</b>	<b>Gas Industry Co comment and recommendation</b>
Interconnection policy	MDL has no policy document although most aspects are covered in other documents. MDL indicated its intention to prepare an interconnection policy by the end of 2009.
Dispute resolution	Processes for dealing with issues arising before entering into a contract with MDL are not covered. We recommend MDL incorporate a pre-contract dispute resolution process in its interconnection policy.
Interconnection Establishment Agreement	MDL's standard agreement is generally well aligned with the Guidelines but is intended for a Receipt Point interconnection. The interconnection policy should include the principles and approach for a Delivery Point.
Interconnection Agreement	Jointly, the interconnection agreement and MPOC are reasonably well aligned with the Guidelines, but are oriented towards a Receipt Point interconnection. The interconnection policy should include the principles and approach for a Delivery Point interconnection.
Technical and metering standards	The technical and metering standards contained within the MPOC are well aligned with the Guidelines.
Pipeline capacity	MDL's documented processes treat interconnections and capacity independently and are well aligned with the Guidelines.
Equipment ownership	MDL's documentation does not reflect the ownership options envisaged in the Guidelines because documentation is primarily intended for Receipt Point interconnections. The interconnection policy should document the principles and approach for a Delivery Point.
Cost recovery	MDL's documented processes are well aligned with the Guidelines.
Application process	MDL's documented processes are reasonably well aligned with the Guidelines. We recommend MDL clarifies the steps and timeframe for dealing with new interconnection requests.
Planning process	MDL does not have a documented planning process. We recommend the interconnection policy describes a planning process consistent with the Guidelines.
Contract negotiation	MDL does not have a documented contract negotiation process. We recommend the interconnection policy describes the contract negotiation process including the approach for Delivery Point interconnection points.
Design process	MDL's documented processes are generally well aligned with the Guidelines, but would benefit from greater detail.
Construction, testing and commissioning	MDL's documented processes are generally well aligned with the Guidelines.

## 2.3 Conclusions

Gas Industry Co found areas in MDL's arrangements that could be improved to better align with the Guidelines. Although compliance with the Guidelines is not mandatory, it is a good indicator that the

Gas Act objectives are likely to have been met. MDL acknowledged it had further work to do on its interconnection arrangements. Gas Industry Co concluded additional time should be allowed for that to occur. We proposed a further review in June 2010 because by then we expected MDL to have amended its arrangements to account for Gas Industry Co's recommendations. The rest of this paper reports on the 2010 review.

# 3

## Evaluation criteria

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### 3.1 Gas Act and GPS objectives

The purpose of the current review is to formally assess whether MDL's and Vector's interconnection services meet the Gas Act and GPS objectives. We therefore began by developing evaluation criteria derived from the Gas Act objectives.

When recommending rules or regulations under the Gas Act, Gas Industry Co must consider the objectives specified in section 43ZN of the Gas Act. The principal objective is to:

*ensure gas is delivered to existing and new customers in a safe, efficient and reliable manner*

Other objectives specified in section 43ZN of the Gas Act are to:

- facilitate and promote the ongoing supply of gas to meet New Zealand's energy needs by providing access to essential infrastructure and competitive market arrangements;
- minimise barriers to competition;
- maintain and advance incentives for investment in gas processing facilities, transmission, and distribution;
- ensure delivered gas costs and prices are subjected to sustained downward pressure;
- ensure risk relating to security of supply, including transport arrangements, are properly and efficiently managed by all parties; and
- maintain consistency with the Government's gas safety regime.

To derive useful criteria for evaluating interconnection arrangements, we must consider what the Gas Act objectives would require in that context. The principal objective suggested a broad classification of the evaluation criteria. Because safety and reliability are closely related, we classified the evaluation criteria under two categories:

- safety and reliability; and

- balance of interests.

Within each of these categories we considered the other objectives listed in section 43ZN of the Gas Act and what they imply for interconnection arrangements. Appendix C sets out the rationale for the development of the evaluation criteria.

The evaluation criteria, that is, what is required of the interconnection arrangements, are set out below.

## **3.2 Evaluation criteria: safety and reliability**

### **Standards**

Interconnection arrangements should specify technical standards for interconnection equipment and methods of construction that comply with good industry practice and the relevant Standards and Codes of Practice. The requirements should cover design, construction, commissioning, testing, and operation of those assets. In particular, interconnection arrangements should:

- specify the standards for construction, operation, and maintenance;
- provide a clear process for agreeing and maintaining the operational parameters (such as minimum and maximum delivery pressure and the operating flow range); and
- provide TSOs the ability to reject arrangements that would adversely affect the safety or the long-term integrity of the pipeline, or the pipeline's certificate of fitness.

### **Responsibility and liability**

Interconnection arrangements should clearly define responsibilities, and associated liabilities, for all activities and approvals throughout the interconnection process. In particular, interconnection arrangements should:

- assign responsibility for design and approval activities;
- identify the personnel within each organisation who are responsible for contract negotiation;
- identify risks and assign liability for losses associated with those risks; and
- place liability with the party able to control the risk.

### **3.3 Evaluation criteria: balance of interests**

#### **Access to essential infrastructure**

Interconnection arrangements should allow a party to access the transmission pipeline, subject to reasonable terms and conditions that are consistent with the objectives listed in section 43ZN of the Gas Act. To achieve this, interconnection arrangements should:

- provide open access to gas transmission pipelines;
- identify and publish the terms and conditions for providing access; and
- ensure the terms and conditions are reasonable and consistent with the Gas Act objectives.

#### **Cost**

Interconnection arrangements should help to ensure costs and prices are subject to sustained downward pressure. A TSO's arrangements should enable interconnections to take place as quickly as possible and at the least possible cost. To achieve this, interconnection arrangements should:

- identify the principles and standard terms for an interconnection;
- identify the overall process steps, milestones, and criteria for progressing the interconnection process;
- set reasonable timeframes and deadlines for commercial negotiations and technical reviews;
- support the use of existing infrastructure, subject to technical suitability;
- not needlessly duplicate facilities;
- allow disputed matters to be referred to a suitable decision maker (for example, a technical expert);
- allow TSOs to recover reasonable costs; and
- not socialise costs unless there are social benefits.

The interconnection arrangements should promote contestability, independence, innovation, and clarity of process.

#### **Contestability**

Interconnection arrangements should promote contestability for the design and construction of equipment to provide downward pressure on cost. To achieve this, interconnection arrangements should:



- identify the principles that apply to contestability; and
- allow ownership, design, and construction to be contestable unless there are compelling technical or legal reasons against contestability.

### **Independence**

Interconnection arrangements should be negotiated independently of transport arrangements unless the parties agree there are compelling technical reasons to negotiate both arrangements together. To achieve this, interconnection arrangements should:

- principally provide for interconnection to be independent of transport arrangements;
- identify the circumstances where co-dependent negotiation may be applicable; and
- allow co-dependent negotiation when *both* parties agree.

### **Innovation**

Interconnection arrangements should:

- promote the use of good industry practices;
- allow TSOs to modify their standard interconnection arrangements to reflect changes in industry practices; and
- allow interconnecting parties to propose alternatives, and allow for TSOs to consider those alternatives.

### **Clarity of process**

Interconnection arrangements should clearly define the technical and commercial processes to enable these activities to be carried out as efficiently as possible, and in a timely manner. In particular, interconnection arrangements should:

- require TSOs to publish an interconnection policy including details of its interconnection process, information requirements, pro-forma contracts, policies and standards, technical review, principles, commercial prerequisites, and a dispute resolution process; and
- require TSOs to provide an interconnecting party with sufficient information to enable it to assess the likely availability of transmission capacity to or from the interconnection point.

## **Enforcement**

Interconnection arrangements should have a means of enforcement at all stages. This should include a suitable dispute resolution process, which is available to both parties throughout the interconnection process.

TSOs might be able to exercise unequal bargaining power. To protect against this, interconnection arrangements must ensure the TSO's terms and conditions are consistent with the objectives listed in section 43ZN of the Gas Act is.

To achieve this, interconnection arrangements should:

- set out the provisions for enforcement and dispute resolution; and
- provide dispute resolution processes that:
  - may be applied to a pre-contract dispute relating to the TSO's terms and conditions;
  - take place in a timely and economic manner; and
  - include a fair and effective escalation process.

# 4

## Approach to review

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### 4.1 Purpose of the review

The purpose of the 2010 review was to assess the TSOs' interconnection arrangements against the Gas Act and GPS. In response to the issues Gas Industry Co identified in its 2009 review, both TSOs amended their interconnection arrangements. This review assesses MDL's revised interconnection arrangements. As noted in Section 1.2. Vector's arrangements are dealt with in a separate document.

### 4.2 Overview of MDL's proposed interconnection arrangements

Following the 2009 review of Interconnection Processes, MDL prepared a draft New Interconnection Policy (Draft Policy)<sup>3</sup>. The Draft Policy describes its relationship with the MPOC and the Interconnection Guidelines, and replicates diagrams and text from the Guidelines. The Draft Policy refers to the MPOC in respect of general conditions of access for new interconnections, technical standards, technical requirements, and TSAs. The Draft Policy *'does not affect the rights or obligations of MDL, or any IP [Interconnecting Party] or other person under the MPOC.'*

Appendix A is an overview of the Draft Policy.

### 4.3 Method

As with the September 2009 review, we undertook the 2010 review by document analysis and interview. We interviewed representatives from MDL who are responsible for defining and providing interconnection service. To structure the discussions we devised a series of questions, which we provided to MDL before the interviews. The questions were based on the evaluation criteria. They are attached as Appendix D.

We assessed MDL's interconnection arrangements against the evaluation criteria as described in section 3. The criteria are based on the Gas Act and GPS objectives. Section 5 sets out our findings.

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<sup>3</sup> MDL's representative advised us the MDL Pipeline sub-committee has not yet approved the Draft Policy (as at 19 November 2010).

# 5

## Assessment of MDL's interconnection arrangements

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### 5.1 Safety and reliability

#### Standards

MDL's technical standards are well documented in the MPOC and cover the key safety legislation and standards that apply when assessing an application for interconnection. MDL's design and approval process requires safety and long term integrity implications of a new interconnection be considered. The process allows MDL to reject an application or design if the effect on safety or integrity is unacceptable.

The MPOC specifies pipeline safety and operating parameters. These parameters include the maximum allowable operating pressure, the operating pressure range, metering requirements, and gas quality requirements.

Gas is potentially hazardous, so the design and construction must be governed by reasonably prescriptive standards. These are referenced in the MPOC and the Draft Policy. MDL's technical requirements for equipment and construction methods reflect the prescriptive nature of these standards. We consider the requirements to be reasonable and not unduly prescriptive.

#### Responsibility and liability

The design and approval process, described in Section 3 of the Draft Policy, assigns responsibility for design and construction activities and approvals.

MDL's arrangements place the control, responsibility and liability onto the Interconnecting Party (IP) for the design and construction, including the hot-tap connection. This approach creates a clear link between responsibility and liability.

Vector, as MDL's Technical Operator (TO), is responsible for reviewing and approving the construction plans (and has certain liabilities under its contract). But the ultimate responsibility for the work lies with the IP.

## 5.2 Balance of interests

### Access to essential infrastructure

The MPOC provides for open access to the pipeline providing the IP meets the requirements of the MPOC. The IP must meet design and construction, and safety and integrity standards. The IP must also indemnify MDL against any loss that may arise from the construction, testing, and commissioning of a new Welded Point. We consider these requirements are reasonable.

### Cost

The default approach to ownership of interconnection equipment makes the IP responsible for all design and construction, and for meeting all associated costs, including MDL's. The IP owns all equipment except the hot-tap connection and pipe work up to, and including, the primary isolation valve.

This ownership model is the current industry norm for Receipt Points. The model requires the IP to meet all costs of interconnection 'up-front'. The cost is expected to be relatively small compared with the investment in gas field and production facilities. Consequently the 'up-front' cost approach is unlikely to be a barrier to access.

In the case of a Delivery Point, it is common practice in New Zealand for the TSO to own the station, and recover the cost through transport fees. MDL's Draft Policy differs from this approach, with the IP meeting all the costs associated with the hot-tap and station. This approach is not considered to be unreasonable or a significant barrier to access. There is no good reason why the pipeline owner or other pipeline users should finance this cost. Also, given the location and size of the Maui pipeline, new Delivery Points (if any) are likely to be for a Power Station or other major plant. These interconnecting parties will be financing large investments and so the cost of the Delivery Point is unlikely to be a barrier to access.

The MPOC requires the IP to indemnify MDL against losses. The Draft Policy (and Interconnection Establishment Agreement or ICEA) sets the limit at \$100 million and requires insurance to cover this amount for 12 months after completion of a new interconnection. The IP meets the cost of this extended cover. It could be considered unreasonable and unnecessary to require this level of insurance for such a period after the installation has been completed—by then the high-risk activities associated with the hot-tap are over. We see no evidence that interconnection failure is more likely in the first 12 months than at any other time. We would therefore expect a new interconnection to attract the same costs as an established interconnection. We think MDL should re-consider the extended insurance cover. We also think MDL should also consider a lower indemnity limit for new interconnections that do not require a hot-tap, and are therefore less risky. The concern over the insurance cover was raised with MDL. MDL advised that a review of the insurance requirements would be conducted in 2011, and the concerns Gas Industry Co raised would be considered.

## **Contestability**

MDL's Draft Policy requires the IP to construct and own the facilities. This approach supports contestability by enabling the IP to seek competitive tenders for the design and construction.

## **Interdependence**

MDL's Draft Policy and associated contracts do not require interdependence between the ICA and TSA. Further, because the Maui pipeline operates a Common Carriage regime with posted tariffs, interdependence would not be expected.

If a proposed interconnection will affect the pipeline's capacity, the TO advises MDL and the IP. But the Draft Policy is unclear about what action would then be taken, or what options are open to the IP. It would be helpful if this was clarified.

## **Innovation**

The Draft Policy does not discuss innovation. The hazardous nature of the industry means design and construction are governed by standards, which are referenced in the MPOC and Draft Policy.

New technology is most prevalent in the field of metering and telemetry equipment. The MPOC specifies metering standards, but they have not been updated since the MPOC was published in 2005. The MPOC's technical requirements for metering equipment are non-prescriptive and allow the use of a range of technologies. Nevertheless, we think MDL should review the requirements from time to time.

## **Clarity of process**

MDL's processes are well documented and timeframes clearly identified.

The Draft Policy includes, as an appendix, 'MDL Instructions to the Commercial Operator on Procedure for New Interconnections with the Maui Pipeline', which pre-dates the Draft Policy and ICEA. These documents duplicate each other in some places. We think MDL should review the documents to remove duplication.

## **Enforcement**

MDL has well-documented dispute resolution procedures in its ICEA. MDL also provides for binding arbitration on pre-ICEA disputes, subject to some limitations. If MDL believes the process is unsuitable for the matter at issue, or the IP does not agree to the process, the dispute resolution process does not apply.

We can envisage situations where this arrangement might lead to a legitimate dispute not being referred to the dispute resolution procedure. For example, pre-ICEA disputes could arise from an assessment of the risks associated with a hot-tap in the particular location proposed by the IP. MDL may reject the IP's proposed location, and propose an alternative hot-tap location or insist that an existing interconnection be used. The result could be a longer (and more expensive) pipeline between the production facility and the Maui pipeline. Such a dispute could be centred on whether MDL was being unduly conservative.

While the dispute resolution process appears to be appropriate for disputes of this nature, MDL may assert it is unsuitable for referral to the dispute resolution process. The concern over rejecting matters for dispute considered unsuitable (by MDL) was raised with MDL. MDL argues that there is a possibility that the outcome of a dispute could potentially undermine the safety of an interconnection. For this reason, MDL does not think that a binding arbitration process for all disputes is reasonable.

# 6

## Conclusions and recommendations

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### 6.1 Conclusions

We found MDL's draft interconnection arrangements met most, but not all of the evaluation criteria. MDL has invested considerable effort to develop a detailed Draft Policy and the associated contractual documents, and Gas Industry Co commends it for this work.

MDL has extended the contract dispute resolution process to cover 'appropriate' pre-ICEA disputes. Although this arrangement does not afford a dispute resolution process for *all* issues that might arise, it is more effective than the current arrangements. Nevertheless, we believe that the arrangement should be extended to allow for independent consideration of all issues in dispute, with exceptions detailed and justified in the Draft Policy if necessary.

### 6.2 Recommendations

To better meet the objectives of the Gas Act and GPS in respect of the interconnection process, Gas Industry Co recommends MDL:

- review the reasonableness for an IP to provide \$100 million insurance cover for 12 months after the interconnection has been completed;
- consider a lower indemnity limit (and insurance cover) for new interconnections that do not require a hot-tap, and therefore represent a lower risk;
- clarify what options are open to the IP in a situation where the proposed interconnection will affect the pipeline's capacity;
- review its technical requirements (Schedule 1 of the MPOC) from time to time to ensure the requirements are aligned with current industry best practice;
- update the 'MDL Instructions to the Commercial Operator on Procedure for New Interconnections with the Maui Pipeline' to remove duplication of processes; and
- extend the dispute resolution procedure to cover all pre-ICEA disputes, with exceptions detailed and justified in the Draft Policy.



# 7

## Next steps

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Gas Industry Co will advise the Minister of the results of the Interconnection Review.

In our advice we will propose Gas Industry Co review how well the new arrangements perform in practice by evaluating the next interconnections to the Vector and MDL pipelines. We will then make appropriate recommendations.

# Appendix A Overview of MDL's interconnection arrangements

## Structure of Draft Policy

MDL's Draft Policy is structured as follows and summarised in Table 2.

- Draft Policy Contents (main body)
  - Background
  - Contractual Framework
  - Process Description & Information Flows- New Interconnection with Maui Pipeline
  - General Policies
  - Commercial Information & Pre-Requisites
  - Technical Information & Pre-Requisites
  - System Information & Pre-Requisites
  - Dispute Resolution
- Appendices
  1. Map of the Maui Pipeline
  2. MDL Instructions to the Commercial Operator on Procedure for New Interconnections with the Maui Pipeline
  3. Template Agreement to Establish a New Welded Point on the Maui Pipeline
  4. Template Interconnection Agreement
  5. List of Existing Welded Points on the Maui Pipeline
  6. New Interconnection Application Form
  7. System Operator Confirming Information
  8. Maximum Allowable Operating Pressures

## Key provisions

The table below sets out the key provisions of MDL's Draft Policy.

**Table 2 Draft Policy- description of key provisions**

Section	Description
Contractual Framework	<p>The overall contractual framework is described including:</p> <ul style="list-style-type: none"> <li>• provisions of the MPOC that apply to new interconnections;</li> <li>• MDL's instruction to the Commercial Operator (CO), date 26 May 2006, 'Procedure for New Interconnections'; and</li> <li>• the general provisions and purpose of the ICEA, ICA and TSA.</li> </ul> <p>The purpose and precedence of the contractual documents are clearly summarised, and it is clear that the parties are bound by the MPOC provisions.</p>
Process Description & Information Flows	<p>Twenty eight process steps are described in tabular format, each with a description, summary of relevant information, responsibility and timeframe. The timeframes are and process steps are aligned with the Guidelines.</p> <p>MDL's process is predicated on the IP having ownership and construction responsibility.</p>
General Policies	<p>General policies in respect of the interconnection process and requirements are outlined, as summarised below.</p> <p>The preferred means of connection is to use an existing above-ground facility, but an application for a location requiring a below ground hot-tap connection will be <i>"assessed on its individual circumstances and risk profile"</i>. Where an existing facility is subject to significant modification, a Modifications Agreement (not reviewed) applies.</p> <p>The IP is responsible for the design and construction of all equipment including the hot-tap or tie-in, and must pay MDL all costs incurred in relation to the construction. MDL will own the hot-tap and interconnection equipment up to and including the primary isolation valve. The IP is generally required to own all other equipment at both Receipt and Delivery interconnections.</p> <p>Injecting IPs must comply with the MAOP for the specific pipeline section and must inject against the prevailing pipeline pressure.</p> <p>The pipeline capacity limit is described and the TO is responsible for notifying the IP and MDL if the pipeline capacity may be exceeded or adversely impacted by the proposed interconnection.</p> <p>MDL will procure the installation of remote monitoring equipment and recover the associated costs from the IP.</p> <p>Limits and tolerances (defined in the MPOC) will be determined by the TO.</p>

Section	Description
Commercial Information & Pre-Requisites	<p>The commercial pre-requisites to establishing a new interconnection are outlined, as summarised below.</p> <p>Prudential requirements including the potential for requiring third party security are described.</p> <p>The IP shall indemnify MDL against loss or damage or liability associated with the construction and testing of a new IP. The maximum liability is \$100 million and the IP must carry insurance for this amount. The insurance is required for 12 months after the termination or expiry of the ICEA.</p> <p>The IP shall provide evidence that land interest or property rights are in place to enable construction and operation of the interconnection station (for example the metering station).</p> <p>MDL will consent to the commencement of construction once it is satisfied that the pre-requisites of the ICEA have been met.</p> <p>MDL will issue an ICA for execution once it has received confirmation from the SO and TO that the relevant requirements have been met. Once all requirements have been met, a Final Approval Letter is issued and the ICEA terminates with the exception of certain enduring provisions, including the requirement for liability insurance.</p> <p>Once the ICA is executed, the IP assumes Welded Party status on the Maui Pipeline.</p>
Technical Information & Pre-Requisites	<p>The technical information requirements are described in detail, with additional reference to Schedule 1 of the MPOC. The requirements listed are closely aligned to the Guidelines and cover:</p> <ul style="list-style-type: none"> <li>• Technical review of the application</li> <li>• Preliminary design documentation</li> <li>• Detailed design package</li> <li>• Inspection body<sup>4</sup></li> <li>• Pipeline risk assessment</li> <li>• Review of detailed design package</li> <li>• Technical Operator Letter of Assurance</li> <li>• Post-construction testing</li> <li>• Technical Operator confirmation</li> <li>• Outstanding steps (ie the provision for operation to commence with certain outstanding items)</li> </ul>
System Information & Pre-Requisites	<p>The details and training requirements for operating the new interconnection point within OATIS are described. The pre-requisites for the SO to issue a System Operator Confirmation are listed.</p>

<sup>4</sup> The Certifying Authority, as defined by the Health and Safety in Employment (Pipelines) Regulations 1999.

Section	Description
Dispute Resolution	The dispute resolution policy is summarised. The process covers pre-contractual dispute resolution unless <i>“MDL believes that the process is not appropriate given the issue in dispute”</i> or the <i>“IP does not agree”</i> . The process involves escalation to senior representatives of each party, and failing that to an independent expert. The ruling of the independent expert is binding.
Appendix A: Maui Pipeline Map	A one-page pipeline map is provided.
Appendix B: MDL Instructions to the CO on Procedure for New Interconnections with the Maui Pipeline (Instructions)	<p>The MDL Instruction to the CO is dated 26 May 2006, and is effectively the current policy and procedure for managing new interconnection requests, and therefore duplicates, not always consistently, other parts of the Policy.</p> <p>The Instructions confirms that the CO has the delegated authority to act on behalf of MDL in respect of new applications.</p>
Appendix C: Template Agreement to Establish a New Welded Point on the Maui Pipeline	<p>The Template Agreement addresses the obligations, precedents and conditions that are described in the Policy. The agreement continues until MDL issue a Final Approval letter unless it is terminated as a consequence of failing to meet the security requirements, or other listed defaults.</p> <p>The Template Agreement also covers confidentiality, access to information and audit provisions.</p>
Appendix D: Standard ICA Template	The Standard ICA template is identical to the Welded Party Agreement Form, Schedule 3 of MPOC.
Appendix E: List of Existing Welded Points on the Maui Pipeline	A listing of Welded Points, the location measured from Oaonui and the name of the Welded Party.
Appendix F: New Interconnection Application Form	The New Interconnection Application Form sets out the information that must accompany a new application, including a general description, location, capacity, metering details, target dates and any pressure requirements. The Application Form also stipulates that the IP, by submitting the application, is agreeing to pay MDL for all costs and expenses incurred in assessing, processing and responding to the Application.
Appendix G: System Operator Confirmation Information	A list of the information typically required to enable the SO to issue the System Operator Confirmation and the party or parties considered responsible for sourcing that information
Appendix H: Maximum Allowable Operating Pressures	The Maximum Allowable Operating Pressures as per Schedule 6 of MPOC.

# Appendix B The Guidelines

## Interconnection policy

Each TSO shall publish an interconnection policy that shall include details of their interconnection process, information requirements, pro-forma contracts, policies and standards, technical review principles, commercial prerequisites for consistency, and a dispute resolution process.

## Dispute resolution

The Guidelines recommend that TSOs include a dispute resolution process as part of their interconnection arrangements, and that offering access to the Rulings Panel would be a suitable default option. Dispute processes could then be based on those contained in the Gas Governance (Compliance) Regulations 2008.

## Technical and metering standards

The TSO may specify the requirements for the following interconnection equipment:

- metering equipment, including gas analyser and all related instrumentation;
- SCADA equipment and interfaces;
- filtration and liquid removal systems;
- pressure control and protection equipment;
- odourisation equipment;
- interconnection 'T' (for example hot-tap) and isolation valve;
- electrical and cathodic protection isolation equipment; and
- other equipment specified in the interconnection policy.

## Pre-existing interconnections

Where the arrangements associated with a pre-existing interconnection are not covered by an ICA, or where the existing ICA does not fully address the requirements of these Guidelines, the interconnecting parties should establish an ICA or amend their existing ICA accordingly.

## **Pipeline capacity**

An ICA does not confer rights to transmission capacity and may be negotiated independently of transportation arrangements. In certain circumstances, as detailed in the TSO's interconnection policy, the TSO may require the ICA and transportation arrangements to be negotiated co-dependently.

## **Equipment ownership**

The TSO will have sole discretion in respect of the ownership of the physical connection 'T', and primary isolation valve, including the pipe work up to the isolation valve from the transmission pipeline.

Ownership of the remaining interconnection equipment will be agreed between the parties. The TSO is not obliged to own or provide this equipment, but the IP can elect to own it. The Guidelines also recognise that the industry norm is for the IP to own receipt stations and for the TSO to own delivery stations.

## **Cost recovery**

Prior to entering into any contract, the TSO may recover the costs it incurs in performing its technical review of an interconnection application, providing such costs are first discussed and agreed by the parties.

The cost allocation methodology detailed in the ICEA should provide for the IP to reimburse reasonable costs incurred by the TSO. This includes the cost to review the detailed design, modify the existing pipeline certificate of fitness, obtain authorisation amendments, and any costs associated with land and easement changes. The parties may agree to include cost recovery for the design and construction phases in an ongoing interconnection fee as part of the ICA.

In establishing an ICEA or ICA, parties shall meet their own contract negotiating costs.

The TSO is not required to accept conditions that would require it to incur operating costs unless it is fully compensated for that cost.

## **Application process**

The TSO should provide a full set of application documents (or have them available for downloading).

The IP should provide a completed application form to the TSO, who should acknowledge the application within five days and confirm whether the application is materially complete within 15 days. Once the application is materially complete, the TSO shall carry out a technical review of the application within 25 days.

The TSO should notify the IP of the outcome of the technical review, and if rejected, the reasons for the rejection. If the IP considers the reasons for rejection to be inadequate, it can initiate the dispute resolution process.

## **Planning process**

Having successfully completed the application phase the parties should meet to agree responsibility for the ownership, design, and construction.

The TSO and IP should develop a project plan assigning responsibilities for design and construction work between the parties.

## **Contract negotiation**

In respect of scope, the ICEA covers the design construction and commissioning of a new interconnection point and the ICA covers the ongoing (post-commissioning) arrangements. For (contractually) simple interconnections, the ICEA may not be warranted and the provisions may be incorporated into the ICA.

In negotiating the ICEA and ICA, the TSO and IP should agree a timetable and sequence for negotiation and advise each other of their contacts for the negotiation. The ICA negotiation may be conducted in parallel with the ICEA negotiation, following agreement of the ICEA, or after completion of the design phase.

In certain circumstances, described in the interconnection policy, the TSO may require the ICA and transportation arrangements to be negotiated together.

## **ICEA**

An ICEA should include the scope of work, standards and specifications, and commercial provisions in respect of design, construction, and commissioning.

The IP should indemnify the TSO for its direct and indirect liability associated with the new interconnection. The TSO may require the IP to provide insurance cover to the value of the indemnity. The scope of the indemnity should include failure of hot-tap operations, off-specification gas and excess pressure.

## **ICA**

An ICA should include commercial terms and conditions and the ongoing operational performance standards and specifications. The ICA should cover:

- Contract period



- Prices
- Interruptions, emergencies, and curtailment
- Confidentiality
- Force majeure
- Liability and indemnity
- Prudential requirements
- Land ownership and access
- Dispute resolution
- Ownership demarcation including any transfer of assets
- Injection rates
- Meter testing and correction details should be included
- Obligations and liabilities of the parties for gas quality
- Odourisation (where required) and testing of odourant levels
- Information transfer including SCADA
- Pressure requirements, limits and protection
- Termination and abandonment

## **Design process**

Unless otherwise agreed, each party is responsible for the detailed design and statutory approval of the assets it owns. The Guidelines recognise that certain assets are critical to the TSO (the 'TSO specified assets') and gives the TSO the right to approve the design of these assets.

Unless the IP has no design responsibility (ie all design and construction is the responsibility of the TSO), the TSO will specify a design review agent.

The IP should issue preliminary design details covering design parameters and high level plant details. Once approved by the TSO's review agent, the IP provides the detailed design for approval including, as applicable, the hot-tap, station, metering, SCADA, and lateral design.

The TSO assesses the effect of the new interconnection, considering factors such as the risk to the existing pipeline from over-pressure and internal corrosion, the operability of the system, and any new threats to above-ground assets.

The TSO also approves the procedures and the qualifications of the party contracted to perform the interconnection.

For a delivery point interconnection point, the TSO and the owner of the downstream equipment agree to the pressure control and protection scheme.

The TSO prepares a report giving either approval, subject to conditions, or rejection including details of design aspects that do not meet the specified standards within 25 business days of receipt of design packages.

Each equipment owner is responsible for obtaining approval from the relevant Certifying Authority for its equipment.

The owner of the station provides the information, as required by the System Operator, to enable the interconnection point to be mapped into OATIS.

## **Construction, testing, and commissioning**

Construction of the TSO specified assets may not begin until the Certifying Authority and the TSO have approved the design.

Where the IP has constructed a new lateral, the TSO has the right to inspect the pipeline cleanliness before the pipeline is put into service.

The TSO will approve the contractor responsible for installing the hot-tap. Notice of any hot-tap work should be given to the System Operator at least one month before the work starts. The party responsible for the hot-tap is responsible for coordinating inspection activities with the Certifying Authority.

Where the IP is responsible for constructing the interconnection station, the TSO may make site construction inspections at agreed hold points for the TSO specified assets.

Where the IP owns 'TSO specified assets', the commissioning procedures are subject to approval by the TSO.

The primary isolation valve will remain closed until the TSO is satisfied that all necessary commissioning tests have been completed and approval has been obtained from the System Operator. Once the primary isolation valve has been opened, the interconnection equipment is deemed to be live.

Any gas injected or withdrawn from the pipeline during commissioning is subject to the requirements of the MPOC or VTC (as applicable) and should be metered.

# Appendix C Development of evaluation criteria

To derive useful criteria for evaluating interconnection arrangements, Gas Industry Co must consider what the Gas Act objectives would require in that context. The principal objective (refer to section 3.1 of the main body of the report) suggested a broad classification of the evaluation criteria; because safety and reliability are closely related we classified the evaluation criteria under two categories:

- safety and reliability; and
- balance of interests.

Within each of these categories we considered the other objectives listed in section 43ZN of the Gas Act and what they imply for interconnection arrangements. We set out the rationale for the development of the evaluation criteria.

## Safety and reliability

The construction of a new interconnection is a technically complex operation, typically involving a hot-tap connection to a live high-pressure pipeline. This is a hazardous operation with risk of serious harm and supply interruption.

The design and operation of interconnection facilities have a significant role in maintaining a safe and reliable gas supply. Receipt interconnection stations must be designed and operated to appropriate standards to manage the risk of non-specification gas entering the transmission system. Non-specification gas can affect safety and the reliability of the gas supply. Delivery interconnection stations must remove contaminants (oil and dust) from the gas and maintain pressure into the downstream gas network within a safe range. All interconnection stations must have reliable and accurate metering systems.

The objectives relating to safety and reliability will be met where appropriate technical standards are set, responsibilities are defined, and there is a clear link between liability and control.

## Balance of interests

Various objective listed in section 43ZN of the Gas Act recognise that there should be a balance between the interests of the access seeker and those of the infrastructure owner. Under the balance of interests category, several criteria for evaluation have been identified, as described below.

## **Access to essential infrastructure**

Providing access to essential infrastructure through an interconnection process is directly applicable to the objective of facilitating and promoting ongoing supply of gas. Arrangements that clearly set out the interconnection process, principles, and reasonable terms and conditions will contribute to this objective.

## **Cost**

The cost of creating new interconnections is directly applicable to the objective of maintaining downwards pressure on delivered gas prices. Cost and prices are subject to sustained downward pressure if aspects of the interconnection arrangements are exposed to competitive pressure, and innovative solutions.

Interconnection arrangements are also relevant to the objective of providing incentives to invest in gas processing facilities, transmission pipelines, and distribution systems. While the interconnection facility is generally only a small part of an upstream gas field development project or downstream gas-fired installation, it nevertheless affects the overall economics of that project. In particular, project economics can be adversely affected where:

- facilities are required to meet unreasonably high technical standards ('gold plating'); or
- where cumbersome processes or unreasonable withholding of approvals delays completion; or
- where interconnection issues are bundled with gas transport issues (see 'independence' below).

## **Contestability**

Providing contestability, where appropriate, is an efficient means of providing competition and therefore supports the objectives of providing downwards pressure on pricing and minimising barriers to competition.

Although interconnection is a process involving an access seeker and a TSO, some aspects of that process do relate to competition in related markets. For example, delayed interconnection can negatively affect competition in upstream gas markets. Competition in the market for constructing interconnection facilities may be reduced if that work is not contestable. These outcomes would mean associated costs are not subject to competitive pressure.

## **Independence**

Independence of interconnection and transport arrangements supports the objective of providing access to essential infrastructure and competitive market arrangements. While there may be technical

reasons to negotiate these arrangements co-dependently, ensuring this co-dependency does not create a barrier to competition is an important consideration (See also 'costs' above).

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## Independence

Independence of interconnection and transport arrangements supports the objective of providing access to essential infrastructure and competitive market arrangements. While there may be technical reasons to negotiate these arrangements co-dependently, ensuring this co-dependency does not create a barrier to competition is an important consideration (See also 'costs' above).

## Innovation

Technical and commercial innovation, such as the specification of metering equipment, supports the objectives of providing downwards pressure on pricing and minimising barriers to competition.

## Clarity of process

A clear process, with defined responsibilities and timelines, contribute to the objectives of providing incentives to invest and to achieve the lowest cost and shortest time to completion.

## Enforcement

Without a means of enforcement, interconnection arrangements cannot reliably achieve the objectives and it is therefore an important evaluation criterion. Enforcement includes contractual and regulatory means of achieving compliance with the Gas Act objectives, and a process for resolving disputes.

## Summary

Table 3 summarises the evaluation categories, and the relevant evaluation criteria within these categories.

**Table 3 Interconnection review evaluation criteria**

Category	Sub-category	Evaluation criteria
Safety and reliability	Standards	Technical standards for design, construction, operation and maintenance activities should provide for a level of supply security consistent with good industry practice, and should not unreasonably prevent the use of alternative equipment or methods of construction.
	Responsibility and liability	Responsibilities and liabilities should be clear and, to the greatest extent practicable, liability should be linked to the ability to control.
Balance of interests	Access to essential infrastructure	Parties wishing to interconnect to a transmission pipeline should be able to do so, subject to reasonable terms and conditions.
	Cost	Arrangements should promote interconnections that take place as quickly as possible and at the least possible cost.

Category	Sub-category	Evaluation criteria
	Contestability	The right to construct and own facilities should be contestable unless there are compelling technical or legal reasons against contestability.
	Independence	Interconnection and transport arrangements should not be unnecessarily interdependent.
	Innovation	Good industry practice and technology should be applied and innovation should not be stifled.
	Clarity of process	The process for interconnection should be described clearly including responsibility and timeframes.
	Enforcement	There should be effective enforcement of the interconnection arrangements and timely dispute resolution throughout the interconnection process.



# Appendix D Review questions

The review of TSOs' interconnection arrangements was conducted partly by interview. The interviews were with MDL and Vector representatives who are responsible for defining and providing interconnection service. We structured the interviews on a series of questions, which we sent to interviewees before the interviews. The questions were based on the evaluation and are set out below.

## Safety and reliability

Do your interconnection arrangements:

1. specify technical standards for interconnection equipment, including by covering the design, construction, commissioning, testing, and operation of those assets?
2. provide a clear process for agreeing and maintaining the operational parameters (such as minimum and maximum delivery pressure and the operating flow range)?
3. provide you the ability to reject arrangements that would adversely affect the safety or the long-term integrity of the pipeline, or the pipeline's certificate of fitness?
4. assign responsibility for design and approval activities?
5. identify risks and assign liability for losses associated with those risks? If so, what are the risks and how is liability assigned?
6. place liability with the party who has the ability to control the risk?

## Efficiency

Do your interconnection arrangements:

7. provide open access to the gas transmission system for new interconnections?
8. identify the principles and standard terms and conditions for an interconnection? In what ways are these terms and conditions consistent with the objectives of the section 43ZN of the Gas Act?
9. identify the overall process steps, milestones, and criteria for progressing the interconnection process?
10. identify the personnel responsible for contract negotiation?

11. set reasonable timeframes and deadlines for commercial negotiations and technical reviews?
12. support the use of existing infrastructure, subject to technical suitability?
13. not needlessly duplicate facilities?
14. allow matters in dispute to be referred to a suitable decision maker (for example, technical expert)?
15. allow TSOs to recover reasonable costs incurred?
16. not socialise costs unless there are social benefits?
17. promote contestability for the design and construction of equipment to provide downward pressure on cost, unless there are compelling technical or legal reasons against doing so?
18. allow for the independent negotiation of transportation arrangements; unless both parties agree there are compelling technical reasons to negotiate both arrangements together?
19. publish an interconnection policy including details of its interconnection process, information requirements, pro-forma contracts, policies and standards, technical review, principles, commercial prerequisites, and a dispute resolution process?
20. provide an interconnecting party with sufficient information to enable it to assess the likely availability of transmission capacity to or from the interconnection point?
21. provide a suitable dispute resolution process, which is available to both parties throughout the interconnection process?

# Glossary

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<b>delivery point</b>	An interconnection point to a TSO's pipeline where gas is delivered from the pipeline
<b>GPS</b>	Government Policy Statement on Gas Governance, issued under the Gas Act, published 18 April 2008.
<b>hot-tap</b>	To repair or modify a pipeline or installation without shutting down operations
<b>ICA</b>	Interconnection Agreement, an agreement between a TSO and an IP that addresses the commercial arrangements and operational requirements of the interconnection station
<b>ICEA</b>	Interconnection Establishment Agreement, an agreement between a TSO and an IP providing for the construction and commissioning of an interconnection station
<b>interconnection</b>	Establishing a physical connection between a TSO's transmission pipeline and the assets of another party
<b>interconnection equipment</b>	The physical equipment associated with the interconnection point, including the interconnection T (hot-tap), metering, pressure control, filtration and odourisation equipment (where applicable)
<b>interconnection point</b>	A point agreed between a TSO and IP where custody of gas (and responsibility for gas quality) is transferred
<b>interconnection service</b>	A TSO's offer of terms on which it provides interconnection to its pipelines
<b>interconnection station</b>	A station containing some or all of the necessary pressure control, filtration, metering and odourisation equipment

<b>IP</b>	Interconnecting Party, the party seeking to interconnect with a transmission pipeline or already connected to a transmission pipeline. The IP may be: <ul style="list-style-type: none"> <li>• the owner of an adjoining transmission system;</li> <li>• the owner of a production/treatment station;</li> <li>• the owner of a distribution system; or</li> <li>• the owner of a direct connect end user facility.</li> </ul>
<b>MED</b>	Ministry for Economic Development
<b>MPOC</b>	Maui Pipeline Operating Code containing the multilateral terms of transportation and interconnection, which are referenced by relevant transmission service agreements (which are between a shipper and a TSO for the transport of gas) and ICAs
<b>receipt point</b>	An interconnection point to a TSO's pipeline where gas is injected into the pipeline
<b>Specification gas</b>	Gas that complies with NZS 5442 as amended or replaced from time to time
<b>transmission services</b>	The services provided by the TSO
<b>TSO</b>	Transmission System Owner
<b>VTC</b>	Vector Transmission Code, containing the multilateral terms of transportation which are referenced by relevant transmission service agreements (which are between a shipper and a TSO for the transport of gas)