Review of Vector Interconnection Arrangements

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GAS INDUSTRY COMPANY LIMITED

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About Gas Industry Co.

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

As such, 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 Government's policy objectives for the gas sector.

Authorship

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Contents

1 Background

The Gas Act 1992 (Gas Act) and the April 2008 Government Policy Statement on Gas Governance (GPS) call for the development of arrangements that provide access to gas transmission pipelines on reasonable terms and conditions. The ability for parties such as gas producers, network owners, or end-users to physically interconnect with pipelines is an intrinsic element of such access.

Gas Industry Co's 2006 review of transmission access issues identified a number of concerns relating to interconnection with transmission pipelines. In response to these issues Gas Industry Co developed the Interconnection Guidelines (Guidelines) that set out its view of good interconnection practice that would meet the objectives of the Gas Act and GPS. The Guidelines, released in February 2009, proposed principles, procedures, documentation requirements, and arrangements for addressing disputes.

Although the Guidelines have no legal standing, Gas Industry Co intends that transmission system owners should use them to develop interconnection services. It is also intended that parties seeking interconnection will use them as an indication of what to expect from a good practice interconnection service. The arrangements described in the Guidelines are not the only way in which a pipeline owner might satisfy the requirements of the Gas Act and GPS, but they do provide a comprehensive and structured way to provide interconnection with transmission pipelines on reasonable terms and conditions.

Gas Industry Co undertook to monitor the effectiveness of these Guidelines in influencing the interconnection services offered by transmission system owners (TSOs). The initial review of interconnection services provided by pipeline owners was conducted in September 2009. The review focused on documented processes and documentation associated with new interconnections.

In relation to Vector, Gas Industry Co met with Vector representatives on 24 September 2009 to discuss the form of Vector's interconnection arrangements.

The findings and recommendations of the review are summarised in section 4.

2 Review process

Gas Industry Co has found the response to the Guidelines to be slow but well intentioned. Both pipeline owners have acknowledged that they have further work to do on their interconnection arrangements, and Gas Industry Co believes that additional time should be allowed for that work to be done. In the mean time, the following analysis considers how current arrangements differ from the arrangements proposed by the Guidelines. This does not necessarily mean that they do not meet the Gas Act and GPS objectives, but does point to an area where further analysis is required.

It is proposed that a further review will be conducted in June 2010. At this later review we will assess whether the interconnection services offered meet the Gas Act and GPS objectives and, if not, consider other options for improvement, including recommending rules or regulations to the Associate Minister of Energy and Resources.

3 Interconnection activity during the review period

This section contains commercially confidential information and has been removed for the purposes of publication.

4 Review of Vector documented processes

A review of Vector's interconnection related documents was conducted to determine the level of alignment with the Guidelines. The objective of the review was to identify material misalignments and to assess where the misalignments were material from a policy objectives perspective.

The following documents were provided by Vector for review:

- Vector Transmission Code, effective 24/09/09 (VTC);
- Standard Interconnection Agreement for Delivery Point (Delivery ICA);
- Standard Interconnection Agreement for Receipt Point (Receipt ICA);
- Metering Requirements for Receipt and Delivery Points (Metering Standard);
- Example Letter of Agreement for a Delivery Point (example LoA); and
- Vector's comparison of the ICA (Appendix A requirements) with Vector Delivery ICA, and of the Interconnection Establishment Agreement (ICEA) (Appendix A requirements) with Vector's example LoA.

Interconnection Policy

What the Guidelines say

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.

What the Vector documents say

Vector does not have a specific interconnection policy; however, many aspects of the policy are addressed in other Vector documents. These include:

VTC

- Metering requirements and standards (referenced)
- General principles and obligations for new ICAs, including metering and gas quality

Metering Requirements for Receipt and Delivery Points

- Detailed metering requirements

Standard Delivery and Receipt ICAs

- Standard terms and conditions
- Technical and metering standards
- Design review and approval obligations including statutory approvals
- Standard cost recovery mechanisms

During the meeting, Vector advised its intention to produce an interconnection policy, but it did not have a firm timetable for this.

Gas Industry Co assessment

While many aspects of a policy are addressed in existing documents, an overarching interconnection policy would provide greater clarity to an interconnecting party (IP). A policy would provide a clear process for both parties in respect of information requirements, timeline, and responsibilities. It would also provide the principles for issues such as the use of near-by existing interconnection points.

Vector is encouraged to prepare an interconnection policy in line with the Guidelines.

Dispute Resolution

What the Guidelines say

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.

What the Vector documents say

The ICA includes a dispute resolution process that allows either party to refer the dispute to an independent expert (agreed or appointed by the President of Arbitrators' and Mediators Institute of

New Zealand Inc). There is no dispute resolution process for matters that arise prior to entering into an ICA.

During the meeting Vector expressed concerns about adopting a dispute resolution procedure for matters arising prior to entering into a commercial agreement but reserved a firm judgement until the details of the process were better developed. Vector also suggested that a dispute resolution procedure is unnecessary because the matters would be clearly specified in the Interconnection Policy.

Gas Industry Co assessment

Although Vector's dispute resolution process does not offer dispute resolution through the Rulings Panel, its dispute resolution procedure does appear to be reasonable. However, it does not address Gas Industry Co's concern about pre-contractual disputes.

The dispute resolution process described in sections 3.2 and 3.3 of the Guidelines is intended to prevent a TSO's Interconnection Policy or provide an efficient means of preventing road blocks and protracted disputes about issues that occur prior to the parties entering into an interconnection agreement. This is an important means of ensuring that a TSO's contractual terms and conditions are not an unreasonable barrier to interconnection. Equally, the process would provide the TSO with a means of resolving any unjustified claim by an IP that the TSO has applied unreasonable terms.

Consequently, Vector's interconnection policy should provide a means for parties seeking interconnection to raise disputes, and to have them resolved in a timely and economic manner before the ICEA (or ICA) has been entered into.

Technical & Metering Standards

What the Guidelines say

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;
- odorisation equipment;
- interconnection 'T' (e.g. hot tap) and isolation valve;
- electrical and cathodic protection isolation equipment; and

- other equipment specified in the interconnection policy.

What the Vector documents say

Vector's Metering Standard provides detailed requirements including SCADA, testing, and correction. This metering standard is referenced by the VTC and the standard ICAs. The VTC also references the metering requirements of the MPOC, which is applicable at the interface between the two pipeline systems.

Station technical requirements such as pressure control, odorisation, isolation valves, filtration, and power supply back-up are detailed in the ICA.

Vector's Delivery ICA does not allow other parties to own the delivery metering equipment.

Gas Industry Co assessment

The ICAs and Metering Standard (jointly) are well aligned with the requirements of the Guidelines. The metering standard allows for alternative metering equipment to be used, such as new or non-standard metering technology, subject to agreement.

Pre-existing Interconnections

What the Guidelines say

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.

What the Vector documents say

The VTC does not refer to interconnections where no ICA exists. Existing interconnections are excluded from certain provisions of the VTC.

Gas Industry Co assessment

It is understood that some of Vector's delivery points have no ICA. Vector is encouraged to address this issue in the interconnection policy and seek to establish ICAs where none exist.

Pipeline Capacity

What the Guidelines say

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.

What the Vector documents say

The Receipt ICA specifies that the ICA '… does not provide for the injection of Gas at the Receipt Point or the transportation of Gas through Vector's pipeline…', and 'Gas may only be injected at the Receipt Point … subject to the terms and conditions of a separately agreed TSA or Supplementary Agreement'. The Delivery ICA has similar conditions.

Vector advised that a new interconnection agreement would only be entered into if there was sufficient pipeline capacity to accommodate the proposed interconnection, as a matter of good faith in negotiations.

Gas Industry Co assessment

Vector's arrangements are well aligned with the Guidelines. It would provide greater clarity if the interconnection policy addressed the prerequisite of pipeline capacity and described the situations (if any) where the ICA and transportation arrangements would be negotiated co-dependently.

Equipment Ownership

What the Guidelines say

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.

What the Vector documents say

The Delivery ICA states that Vector has the sole right to design, construct, and install any connection to the pipeline, any associated station, and the Delivery Point. The ICA also states that Vector shall be the metering owner.

The Receipt ICA states that Vector has the sole right to design, construct, and install any connection to the pipeline. Vector also has the sole right to determine whether odorisation facilities are required and to design, construct, and install any odorisation station. Ownership (and the design/construction responsibility) of the Receipt Point (station), including metering, is by agreement.

At the meeting, Vector advised that it was not in favour of Delivery Points being owned by third parties, although there are a few historic examples where this is the case. Vector advised that it allows interconnecting parties to design and construct the station subject to an agreement to transfer ownership to Vector (once constructed). Vector provided an example LoA that illustrated the principles and terms of such an arrangement. The LoA set out additional standards for the station and assigned work scopes and responsibilities to each party. A schedule of rates for reimbursing Vector's design review and a mechanism for agreeing the asset transfer were included.

Gas Industry Co assessment

One objective of the Guidelines is to provide flexibility to an IP in respect of ownership and the means of cost recovery. By allowing an IP to own the station, it can choose how they fund the capital expenditure and be assured of a competitive cost. Vector's Delivery ICA does not comply in this respect, but by allowing the interconnecting party (or a third party appointed by the IP) to construct the station, and then transfer ownership to Vector, the IP is afforded a similar degree of financing flexibility.

The principles and general terms and conditions for an IP to design and construct the station, and the transfer of ownership to Vector, should be included in the interconnection policy to give better transparency and certainty to the IP.

The Receipt ICA is well aligned with the Guidelines, although it is noted that the agreement does not cover the situation where it is agreed that Vector will own any interconnecting transmission pipeline lateral.

Cost Recovery

What the Guidelines say

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.

What the Vector documents say

Vector does not have a documented process for the initial application and technical review. Where an ICA is not (or cannot be) entered into before costs are incurred, Vector's practice is to prepare a LoA that includes cost recovery and a commitment to enter into an ICA. The example LoA provided by Vector included a schedule of rates for design and review staff and contractors, and provisions for the reimbursement for materials and equipment provided by Vector.

The ICA states that Vector has sole right to choose how it recovers its costs incurred in establishing the interconnection point, which may be as a lump sum, an ongoing fee, or a combination of the two.

Gas Industry Co assessment

It is not clear how costs will be recovered for work carried out prior to entering into a contract or LoA. The interconnection policy should address this to improve process transparency.

The ICA gives Vector the discretion to recover construction costs using a cost recovery mechanism of its choice. The effect that the cost recovery mechanism has on the objective to provide access on reasonable terms is linked to the ownership model. In the case of receipt point interconnection, the IP can choose how to finance the interconnection. For a delivery point interconnection, the cost of the physical interconnection and station may be a material barrier to entry and would represent a significant proportion of the overall capital cost of, say, developing a new distribution network. However, if Vector allows the IP to construct the station, and then transfer ownership to Vector, the IP is afforded a reasonable degree of financing flexibility. The principles and general terms and conditions for an IP to design and construct the station, and the transfer of ownership to Vector, should be included in the interconnection policy to give better transparency and certainty to the IP.

Application Process

What the Guidelines say

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.

What the Vector documents say

Vector does not have a published application form or process.

Some aspects of the application process, such as the right to determine whether a new interconnection will be via a hot tap or via an existing interconnection point, are addressed in the ICAs.

Gas Industry Co assessment

The application process is not clearly defined and, while it is acknowledged that the frequency of interconnections is low, the overall clarity and expediency of the process would be improved by describing the application process in the interconnection policy.

Planning Process

What the Guidelines say

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.

What the Vector documents say

There is no specific planning phase described in the Vector documents, although aspects of the planning process are addressed in the example LoA (responsibilities, sequence of events and some target dates for construction, and gas flow).

Gas Industry Co assessment

The process would be more transparent if the planning steps outlined in the Guidelines were included in the interconnection policy.

Contract Negotiation

What the Guidelines say

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.

What the Vector documents say

The contract negotiation process is not documented. It is noted that Vector does not have a standard ICEA. The areas covered by the ICEA, as described in the Guidelines, are partly covered by the standard ICA and partly by the example LoA.

Gas Industry Co assessment

It would improve clarity if the interconnection policy addressed the contract negotiation process, and gave guidance in respect of when an LoA (or ICEA) would be required.

ICEA

What the Guidelines say

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.

What the Vector documents say

Vector does not have an agreement that is directly comparable to the ICEA. In some situations Vector prepares an LoA to allow progress on a new interconnection point prior to an ICA. The example LoA included design and review responsibilities, sequence of events, and some target dates for construction and gas flow.

Vector always installs the hot tap, or other means of primary interconnection, and therefore the IP has no liability for this activity. The ICA includes liability provisions associated with a receipt point causing losses through over pressure or non-specification gas.

At the meeting Vector indicated that a standard LoA is being considered, which would fulfil the role of an ICEA.

Gas Industry Co assessment

Although there is not a single Vector agreement directly comparable to the ICEA, the example LoA addressed most of the aspects intended to be covered by an ICEA. There were some areas not covered including dispute resolution, liabilities, and insurance. The timetable and milestone points could have been better defined. Some aspects were duplicated (that is covered in the LoA and in the standard ICA).

While the Guidelines provide flexibility around the relative content of the ICEA and ICA, Vector is encouraged to align its agreements with the Guidelines where practicable.

ICA

What the Guidelines say

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
- Odorisation (where required) and testing of odorant levels
- Information transfer including SCADA
- Pressure requirements, limits and protection
- Termination and abandonment

What the Vector documents say

The ICAs are comprehensive agreements which addresses all the area listed in the Guidelines. As noted in 3.11 (of this document), the ICA also addresses aspects of the design and construction that the Guidelines assign to the ICEA.

Gas Industry Co assessment

The ICAs are well aligned with the Guidelines, but include areas that may be better placed in an ICEA. Vector is encouraged to align its agreements with the Guidelines where practicable.

Design Process

What the Guidelines say

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.

What the Vector documents say

The example LoA sets out the standards, scope, and responsibility of the station work. The design stages including HAZOPs, approval by the Certifying Authority, and Vector's review and approval, are addressed.

The ICAs cover some high level aspects of the design process, such as stating that Vector shall be responsible for the design of any odorisation facility, and information to be available via OATIS.

Gas Industry Co assessment

The process, as inferred from the example LoA, is reasonably well aligned with the Guidelines.

Vector is encouraged to align its standard LoA (ICEA) with the design process detailed in the Guidelines.

Construction, Testing, and Commissioning

What the Guidelines say

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.

What the Vector documents say

The Delivery ICA states that no gas can be taken from the delivery point until: Vector has received the consents and the necessary certificate of fitness; commissioning is complete; payments have been received; prudential requirements have been met; and a valid TSA is in place.

The Receipt ICA has the additional prerequisites of the odorisation facilities being commissioned, and demonstrating to the TSO that the metering facility, associated data acquisition, and gas specification assurance complies with the ICA.

The example LoA described the responsibility and process steps for construction of the station. The IP was responsible for construction and Vector responsible for commissioning once certain prerequisites were met. The commissioning activities were not detailed (as they were Vector's responsibility).

Since Vector does not allow the IP to undertake the hot tap connection, no construction or commissioning details were included.

Gas Industry Co assessment

The Vector processes are generally aligned with the Guidelines. Vector is encouraged to align its standard LoA (ICEA) with the construction process detailed in the Guidelines.

5 Summary and recommendations

Vector's interconnection documents are generally well aligned with the Guidelines. The most significant omission is an interconnection policy that would provide an overall framework for the process and improve the process transparency. The policy should address the areas listed in the Guidelines (Appendix A) and specifically include the following:

- The principles and general terms and conditions for a delivery point station to be constructed by the IP, and then transferred to Vector;
- How pipeline capacity constraints are addressed for new interconnection applications;
- The policy for existing interconnection points where there is currently no ICA;
- The principles for determining whether a hot tap is an unacceptable risk (e.g. when another station exists nearby); and
- Disputes resolution process.

In respect of the dispute resolution process, Vector suggested that a well constructed interconnection policy would greatly reduce the opportunity for a dispute to arise prior to entering into an ICA. The Gas Industry Co's view is that to meet the objectives of pipeline access on reasonable terms, there is a need to resolve disputes over matters that occur prior to entering into an agreement, and that a process based on the Gas Governance (Compliance) Regulations 2008 is the most cost effective.

Vector does not currently have a standard ICEA, but has indicated an intention to prepare an equivalent document based on a LoA, which it has used as a precursor to entering into an ICA. The review of the standard ICAs and example LoA found some areas of overlap between the documents. The standard ICA includes some aspects that the Guidelines assign to the ICEA. While the Guidelines anticipate and accommodate some movement in the boundary between these documents, Vector is encouraged to consider the ICA content when developing a standard ICEA. Vector is also encouraged to align the ICEA as far as practicable with the process steps described in the Guidelines.

A summary of the review finding is tabulated below.

Guideline Item	Gas Industry Co Comment & Recommendation
Interconnection policy	Vector has no policy document but many aspects are addressed in other existing documentation. The development of an interconnection policy is recommended.
Dispute resolution	Issues arising prior to entering into a contract with Vector are not addressed. Vector should incorporate a pre-contract dispute resolution process in its interconnection policy.
ICEA	Vector does not have a standard ICEA but has used a LoA, which if standardised would address the requirements. It is recommended that a standard ICEA be developed.
ICA	Vector's standard ICAs (for receipt and delivery) are well aligned with the Guidelines but cover some aspects that may be better placed in the ICEA. It is recommended that the ICA be aligned, where practicable, with the Guidelines.
Technical and metering standards	Vector's Metering Standard and other technical standards (included in their standard ICAs) are well aligned with the Guidelines.
Existing interconnections with no ICA	Vector should develop a policy for retrospectively addressing existing interconnection points.
Pipeline capacity	Vector's documented arrangements treat interconnections and capacity independently and are well aligned with the Guidelines. If applicable, the interconnection policy should address situations where there is insufficient capacity or where Vector may negotiate interconnection and capacity co-dependently.
Equipment ownership	Vector's practice is not fully aligned with the Guidelines, with third parties unable to own delivery stations and equipment. Instead, Vector allows third parties to design and build this equipment, with an agreement for ownership transfer. The principles for this arrangement should be documented in the interconnection policy.
Cost recovery	Vector does not have a documented process for cost recovery prior to entering into a contract. Cost recovery is addressed in the standard ICAs and was addressed in the example LoA. The principles for cost recovery where the IP builds the station and transfers the ownership to Vector should be documented in the interconnection policy.
Application process	Vector does not have a documented application process. This should be included in the interconnection policy.
Planning process	Vector does not have a documented process but the process was partially addressed in the example LoA. This should be formalised in the interconnection policy.
Contract negotiation	Vector does not have a documented contract negotiation process, and some overlap exists between the ICA and the example LoA. The contract negotiation process should be outlined in the interconnection policy, including the circumstances where a LoA (or ICEA) would be used.
Design process	Vector does not have documented design process but the example LoA was reasonably well aligned with the Guidelines. The design process should be

Guideline Item	Gas Industry Co Comment & Recommendation
	outlined in the interconnection policy and details included in the ICEA.
Construction, testing and commissioning	Vector's documented processes (in the ICA and LoA) are generally well aligned with the Guidelines. The construction, testing and commissioning process should be outlined in the interconnection policy and details included in the ICEA.