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CONSULTATION PAPER

# Options for Information Disclosure in the Wholesale Gas Sector

SUBMISSIONS CLOSE: 5:00PM, WEDNESDAY, 17 APRIL 2019

# Executive Summary

## Overview

Recent events in the gas industry have brought an increased focus on information availability in the sector. The industry has seen several major production outages occurring over a relatively short space of time and this has led to questions, from both within the industry and the broader energy sector, about information transparency and asymmetry in the wholesale gas market.

On 25 July 2018, Gas Industry Co received a letter from the Minister of Energy and Resources Hon Dr Megan Woods, where she raised her concern that if information is not required to be disclosed in a timely manner it may have a material effect on the wider market for gas. The Minister requested that Gas Industry Co investigate the current information disclosure requirements and consider whether they are adequate.

Following the Minister's letter, Gas Industry Co has established a new workstream on information disclosure. This workstream will consider whether current market arrangements related to information disclosure in the wholesale gas sector are sufficient or whether further arrangements are required. This paper represents the first step in the workstream.

## Potential Information Issues

The supply side of the New Zealand gas sector is concentrated. The capital-intensive nature of gas supply combined with a desire for supply certainty from major gas users has led to long-term, bilateral gas supply agreements being the preferred market arrangement. This prevalence of bilateral supply contracts is a contributing factor in possible information transparency and asymmetry issues in the wholesale gas market. Large gas users (including shippers) with several gas supply agreements may have a reasonable level of knowledge about the market. Other parties' information may be limited to the fields they take gas from. Parties outside of the gas sector (particularly electricity sector parties) may also have limited information regarding gas supply issues.

The demand side of the gas sector is also concentrated. Most of the gas that is produced in New Zealand is consumed by a relatively small number of major users. An outage at a major user's plant has the potential to affect the volumes and prices traded by brokers or through emsTradepoint. Accordingly, it is important that major users share information, enabling information transparency in the market. Generally, information on major gas users' outages is not disclosed publicly. Some information is reported on Jam Solution's outage schedule, but not all major gas users contribute to this schedule.

emsTradepoint has previously provided publicly available lagged volume and price data on its market but stopped in April 2018. This information is now restricted to market participants; there is currently no public disclosure of lagged volume and price data on the emsTradepoint market. In contrast, lagged price information for both the NZX and the electricity wholesale market is publicly available.

The potential information issues that have been identified are summarised in the following table.

**Table 1 Summary of Potential Information Issues**

Problem	Comment
Planned and unplanned outage information related to production and major gas user facilities is generally not available publicly (notwithstanding recent disclosure by some parties, e.g. some high-level information on the Pohokura Intervention Campaign). Examples of recent events where information was limited include the Pohokura flexible pipeline leak, the Pohokura offshore platform shutdown valve failure, Kupe production facility planned maintenance outage (information was made available when requested) and Methanex's planned outage.	Major plant outages affect the market. Limited information transparency and information asymmetry related to outages may impact on the efficient operation of the market and lead to fairness issues. Outage information is disclosed in all the markets we have reviewed.
emsTradepoint volume and price information is not publicly available – it sits behind a paywall. The information was placed behind the paywall in April 2018.	Energy sector participants or other interested parties who are not subscribers to emsTradepoint have no visibility of gas wholesale market signals. In contrast, market information is available publicly in the wholesale electricity market, the NZX (with a lag) and the Australian gas markets.
Average wholesale price and aggregate traded volume (covering gas traded under bilateral contracts, brokered arrangements and the emsTradepoint market) is not available to the market.	An understanding of market fundamentals, including quantity and price, is important for market participants to make good decisions. It is also important information for Gas Industry Co in its co-regulatory role.
There is no information available on forecast production over the short term (e.g. one week) or medium term (one year).	<p>A lack of information on future gas supply is one of several factors that may limit the demand-side's understanding of gas availability and liquidity. They are less likely to use the wholesale trading market or brokers to secure supply.</p> <p>This unavailability of forecast supply information may limit the electricity system operator's understanding of electricity security of supply – gas-fired generation is an important part of New Zealand's electricity generation fleet, particularly during periods of low inflows into the hydro lakes and peak winter demand. This information is particularly important in New Zealand due to our high penetration of renewable generation and growing share of intermittent generation.</p>

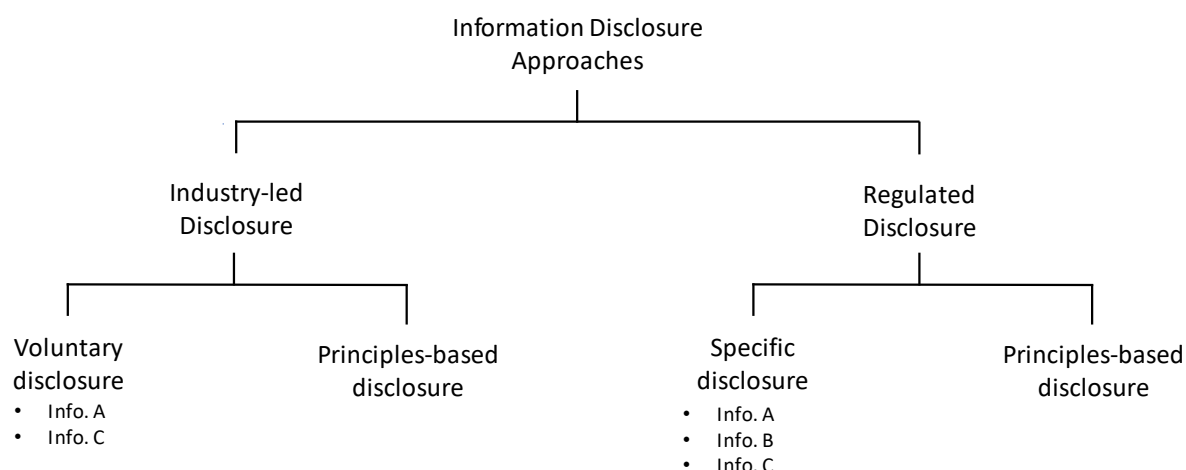
In the following table we list the relevant objectives in the Gas Act and GPS (see Appendix C) and comment whether the current state of information availability in the wholesale gas market enables these outcomes to be achieved.

**Table 2 Government Policy Objectives and Information Availability**

Government Policy Objective	Comment
The facilitation and promotion of the ongoing supply of gas... by providing access to... competitive market arrangements	Some gas wholesale market participants may be making decisions based on incomplete, inaccurate and dated information. Given that information availability for all market participants is a condition for an efficient market, this implies that there may be issues with the function of the wholesale gas market.
Barriers to competition in the gas industry are minimised	The inability for all parties to have access to a common pool of information may restrict competition in the market.
Incentives for investment in gas processing facilities, transmission and distribution are maintained or enhanced	Upstream investment is unlikely to be affected by limited information because investment decisions are associated with supply agreements with downstream users. However, a lack of information transparency may adversely affect other parties' ability to make investment decisions.
Delivered gas costs and prices are subject to sustained downward pressure	Limited information transparency and asymmetry between parties may lead to delivered gas costs and prices being higher than they otherwise would be.
Risks relating to security of supply... are properly and efficiently managed by all parties	Effective and efficient risk mitigation (including security of supply risks) requires all parties to have complete, accurate and timely access to market information. A lack of information transparency and information asymmetry implies that risks in the gas market and broader energy sector may not be properly and efficiently managed by all parties.

## Approaches to Information Disclosure

There are three broad approaches to information disclosure that could be adopted. These are outlined in the diagram below.



**Voluntary Disclosure.** This voluntary disclosure option would involve parties disclosing information on a voluntary basis under an industry-led information disclosure protocol. Industry parties would agree a framework for voluntary information disclosure that enabled a consistent approach across events and parties. Voluntary disclosure is an industry-led approach.

**Principles-based Information Disclosure.** A principles-based approach to information disclosure focuses on achieving an outcome rather than setting detailed rules that parties must adhere to. Under a principles-based approach to information disclosure, producers, transmission owners and major users would disclose any information that they hold that they expect would have a material impact on prices in the wholesale market if it was made publicly available. This would be measured by prices in emsTradepoint.

**Specific Information Disclosure.** Under this approach, producers, transmission owners and major users would disclose information based on their compliance with specific disclosure rules. Specified information disclosure is a regulated approach.

**Mixture of Options.** An information disclosure regime may be a combination of these various approaches. For instance, a principles-based regime may be mixed with specific rules-based disclosure.

## Coverage

The coverage of information disclosure should extend across all parties in the gas wholesale market that could either directly, or indirectly, affect gas volumes and price in the market. For instance, actions of major users that affect the market may have just as much impact as actions by producers.

Following this logic, the parties covered by information disclosure obligations should include:

- Producers;
- Shippers;
- Transmission pipeline operators;
- Major users that have facilities over a certain threshold size (see below);
- Traders;
- Market operation service providers.

It may be appropriate to include a minimum threshold for disclosure by parties. These thresholds are common in overseas information disclosure regimes. The threshold would be set so that smaller parties, whose actions do not materially affect the market, would not be required to disclose information.

## Information Disclosure Rule Options

Information disclosure rules are outlined below. These rules would fit under a regulated specific disclosure regime. They are also relevant for a voluntary disclosure regime. In addition, several of the options would fit with a principles-based information disclosure regime.

**Planned Outage Information.** The scope of this disclosure would cover planned outage information for all gas processing facilities, transmission pipelines and major users (excluding those that may fall under a possible size threshold).

**Unplanned Outage Information.** Similar to planned outage disclosure, the scope of this disclosure would cover unplanned outage information for all gas processing facilities, transmission pipelines and major users (excluding those that may fall under a possible size threshold). This would include unplanned changes in available supply capacity and unexpected changes in demand.

**emsTradepoint Volume and Prices.** This disclosure would involve the publication of lagged emsTradepoint traded volumes and prices.

**Traded Volume and Price Data.** This would involve the publication of weighted average wholesale prices and aggregate traded volumes that cover the entire gas wholesale sector – including gas traded under bilateral contracts and brokered arrangements. Data would be provided to an independent party who would publish aggregated information.

**Twelve Month Outlook for Gas Production and Consumption.** This option would involve producers providing forecast gas production information for the coming year or perhaps quarterly information over the year. Information could be aggregated to address confidentiality issues. An extension to this option would involve similar disclosure by major users.

## Publication Channels

There are several possible options for the publication of outage information (which may be disclosed either through voluntary disclosure, principles or specific information disclosure regimes), including:

- A bespoke website, that could be set up and managed by Gas Industry Co;
- Separate webpages on the Gas Industry website;
- An extended version of POCP, which is the electricity sector's information disclosure platform. POCP could become a New Zealand energy sector information disclosure platform; and
- Possibly First Gas's Tacos environment.

Publication of emsTradepoint lagged volumes and price could be done through the public parts of the emsTradepoint website. Weighted average wholesale price and aggregate traded volume information could be published by the party that creates the aggregate measures.

## Submissions

Written submissions on this Consultation Paper should be provided to Gas Industry Co by **5 pm on 17 April 2019**. Submissions can be made by logging in to Gas Industry Co's website and uploading your submission, preferably in the form of the submissions template attached to this consultation document (Appendix D). Submissions may be amended at any time prior to the closing date. All submissions will be published automatically on the website after the closing date.

Details of the submissions process are as follows:

- No email confirmation will be sent out acknowledging receipt of submissions. To check your submission has been successfully uploaded, log in and check your account. If this is unsuccessful, contact Alison O'Connor (Ph +64 4 472 1800) or email: [alison.oconnor@gasindustry.co.nz](mailto:alison.oconnor@gasindustry.co.nz) for assistance.
- The closing time for submissions is **5 pm**. Please note that submissions received after that time may not be able to be fully considered.
- All submissions will be published on Gas Industry Co's website. Submitters should discuss any intended provision of confidential information with Gas Industry Co prior to submitting the information.

Gas Industry Co is happy to meet with any stakeholder who wishes to discuss the proposals in more detail.

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# 1. Purpose

## 1.1 Introduction

The purpose of this paper is to provide gas sector stakeholders the opportunity to comment on options for information disclosure in the New Zealand wholesale gas sector. This paper sets out a proposed problem statement together with a series of options for addressing the potential information issues. The options are described at a concept level and are evaluated qualitatively. We also include a high-level benefit analysis of information disclosure in the New Zealand wholesale gas sector.

Submissions will be used to assist in determining whether there is potential information issue, and if there is an issue, the extent of the issue and the appropriate option for detailed design and evaluation.

## 1.2 Background

Recent events in the gas industry have brought an increased focus on information availability in the sector. The industry has seen several production outages occurring over a relatively short space of time and this has led to questions, from both within the industry and the broader energy sector, about information transparency and asymmetry in the wholesale gas market. These events include a discovery of a leak in the Pohokura flexible pipeline, a subsequent and unrelated failure of a shutdown valve on Pohokura's offshore platform, a planned maintenance outage for the Kupe production facility, a reduction in output from the Maui field and discovery of a pipeline buckle on the 400-Line (Maui pipeline).

The events affected multiple parties in the gas industry and broader energy sector:

- Several industry participants raised a concern about the timing of when different companies became aware of outages. For instance, companies that were counterparties to Pohokura gas supply agreements had information on two of the recent outage events and were able to make decisions based on this knowledge. Other parties had less information apart from details that were reported in the media.
- Concerns were raised that the Critical Contingency Operator (CCO) was not fully briefed about the outages as operators became aware of the issues. A complete understanding of gas availability is critical for the CCO to be able to effectively manage the system during a critical contingency event.
- The outages have highlighted the importance of the interlinkages between the gas and electricity sectors. Gas fired generation is an important part of New Zealand's electricity generation mix, particularly during times of tight supply (e.g. caused by low inflows to the hydro lakes, or high winter demand). The electricity system operator raised its concerns in correspondence with Gas Industry Co that it was not given enough visibility over the outages to effectively manage short- and medium-term electricity security of supply. A lack of information on gas supply issues makes it more difficult for the system operator to manage outages on the electricity network. It can also lead to potential gaps in security of supply forecasting and information (i.e. energy risk information). The electricity system operator noted that, in some circumstances, this information scarcity could also impact real time operations. Wholesale electricity market participants were

also affected by the lack of information – the wholesale electricity market was impacted by the withdrawal of gas-fired generation offers and these parties had no visibility on the drivers behind these actions.

- emsTradepoint, the gas wholesale market, had no information on the outages and its implications for prices and traded quantities on the emsTradepoint market. emsTradepoint raised its concerns with Gas Industry Co over this information scarcity and stressed the importance of information availability to support a well-functioning gas market.

Further to the concerns raised by the industry, on 25 July 2018, Gas Industry Co received a letter from the Minister of Energy and Resources Hon Dr Megan Woods, where she raised her concern that if information is not required to be disclosed in a timely manner it may have a material effect on the wider market for gas. The letter noted that the Pohokura pipeline outage was an example of an occasion where a higher level of information disclosure may have been warranted. The Minister requested that Gas Industry Co investigate the current information disclosure requirements and consider whether they are adequate.

Over the course of the Gas Transmission Access Code (GTAC) workshops in 2018, a number of industry participants sought information disclosure by large interconnected parties as a part of their interconnection agreements. The discussions were unable to gain agreement from these parties and the efforts were discontinued once Gas Industry Co indicated that it intended to commence a workstream on information disclosure following the Minister's letter.

### **1.3 Process**

Following the Minister's request and noting industry concern, Gas Industry Co will consider whether current market arrangements related to information disclosure in the wholesale gas sector are sufficient or whether further arrangements are required. We have established a new workstream on information disclosure to progress this issue.

Gas Industry Co has had initial meetings with a number of interested parties (both within the gas industry as well as wider energy sector stakeholders) to understand their perspectives on information disclosure. We have also conducted a review of information disclosure regimes in several countries and markets (see Appendix A).

This paper represents the first formal step in the workstream. The next step in the process will involve consultation on this paper. Gas Industry Co intends to hold a workshop with interested parties after the release of this paper to improve parties' understanding of the issues, so that we receive high quality submissions.

Following this consultation process, Gas Industry Co will review the submissions we receive and develop a summary of submissions paper. The next step will depend on the issues raised in the consultation process. For example, additional analysis may be required, along with a further consultation phase.

## 2. Proposed Problem Statement

### 2.1 Introduction

In this section we set out a proposed problem statement for information disclosure in the gas wholesale sector. We begin by discussing the importance of information for the operation of a well-functioning market. This is followed a review of potential information issues by market segment. Finally, these issues are compared with the Government's objectives for the market set out in the Gas Act and the GPS.

### 2.2 Importance of Information for a Well-functioning Market

For a market to be efficient, firms must operate in a competitive marketplace<sup>1</sup>. Free-flowing, timely and accurate information is a key element of a competitive landscape. Information enables producers to compete in the market and is a key factor in enabling them to supply their product at least cost to meet demand. It provides the signal for further investment, including additional capacity. Information transparency is important for minimising the barriers to entry for new market participants. In the New Zealand gas sector, the small and concentrated size of the market means that gas developments are often coupled with long term gas contracts<sup>2</sup>. These arrangements can limit information transparency. Information is the cornerstone for consumers in making decisions and ensuring that gas is supplied to those parties with the greatest willingness to pay.

In contrast, information failure is regarded as a form of market failure. Information failure exists when some, or all, participants do not have complete information or information is unbalanced (or asymmetric) across parties. If information is not widely available, decisions must be made based on incomplete, inaccurate, dated or asymmetric information. This may lead to an inefficient allocation of resources in the gas sector, the wider energy sector market and the New Zealand economy generally.

A report<sup>3</sup> to the Ministerial Council on Energy in Australia said the following regarding the importance of information in a gas wholesale market:

Information is the life-blood of any commodity market. A transparent wholesale gas market is one in which market participants have ready access to long and short term information on price and the availability of gas and transmission capacity. Transparency enables the market to respond effectively to fluctuations in supply and demand both large and small. Transparency reduces barriers to entry and exit by enabling prospective and current participants to easily assess their commercial positions.

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<sup>1</sup> Companies in the market that are natural monopolies (in the gas sector, transmission and distribution pipeline functions are considered natural monopolies) are regulated by the Commerce Commission.

<sup>2</sup> For example, this was the case for the development of the Kapuni, Maui, Kupe and Pohokura fields. Todd Energy's vertically integrated structure means that these contracts were not required for its further development of the Mangahewa field.

<sup>3</sup> Allen Consulting Group (2005). *Options for the development of the Australian wholesale gas market*. Report to the Ministerial Council on Energy Standing Committee of Officials - Gas Market Development Working Group

The report referred to a Dutch Market Surveillance Committee document, which said the following about the role of information in well-functioning markets<sup>4</sup>.

In order to operate in an economically rational manner, agents need information about the development of the market. Lack of such information subjects businesses to increased risk and uncertainty. The consequence may be mistaken decisions. Agents may also be driven to undertake costly actions to protect their businesses from the associated risk and uncertainty. The higher costs – as well as any competitive disadvantages created by unequal access to relevant information – discourage participation in the market and reduce entry and new investment.

Improved access to relevant information – or greater market transparency – may therefore improve market conditions in a number of ways, including

- the reduction of risk and uncertainty (by providing market participants with better information);
- the removal of information asymmetries (by allowing participants access to the same information);
- the improvement of market liquidity (by encouraging more parties to actively participate in the market).

In addition, improved market transparency facilitates better monitoring by third parties and hence a greater chance of detecting anti-competitive behaviour. All in all, the result of better transparency will be more cost-effective operation across the industry and lower prices to consumers.

## **2.3 Wholesale Gas Market Information Transparency**

Potential information issues in the wholesale gas sector are driven largely by the structure of the sector. Table 3 below lists the various segments and participants involved in the wholesale gas sector, excluding major gas users and traders.

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<sup>4</sup> Dutch Market Surveillance Committee (2001). *Towards more transparency in the Dutch electricity sector*, <https://www.acm.nl>

**Table 3 List of Industry Participants (not including major users or traders)**

Participant type	Participant
Explorers/Producers (Upstream sector)	<ul style="list-style-type: none"> <li>• Beach</li> <li>• East West Petroleum</li> <li>• Genesis Energy</li> <li>• Greymouth Petroleum</li> <li>• L &amp; M Energy</li> <li>• NZ Energy Corp</li> <li>• NZ Oil &amp; Gas</li> <li>• OMV</li> <li>• TAG Oil</li> <li>• Todd Corporation</li> <li>• Westside Corporation</li> </ul>
Shippers	<ul style="list-style-type: none"> <li>• Contact Energy</li> <li>• First Gas</li> <li>• Genesis Energy</li> <li>• Greymouth Gas New Zealand</li> <li>• Methanex New Zealand</li> <li>• Mercury</li> <li>• Nova Energy</li> <li>• OMV New Zealand</li> <li>• TrustPower</li> <li>• Vector Gas Trading</li> </ul>
Transmission pipeline operators	<ul style="list-style-type: none"> <li>• First Gas</li> </ul>
Market operation service providers	<ul style="list-style-type: none"> <li>• emsTradepoint</li> </ul>

In the following discussion we identify potential information issues in the various segments of the market. For each segment, we describe the information that is currently disclosed and gaps in information provided to the market. This is compared with the approaches adopted in other markets (particularly the Australian gas markets). Further information on information disclosure regimes in other countries and markets is included in Appendix A.

Information disclosure by shippers and transmission pipeline operators is not included in the discussion. Although shippers are participants of the wholesale gas market and are party to contracts with both producers and retailers, they do not own information that would materially affect the operation of the market. For transmission, under the terms of both the Maui Pipeline Operating Code (MPOC) and the Vector Transmission Code (VTC), operational information is disclosed by the sole transmission pipeline operator, First Gas (see Appendix B). Both regimes provide for the notification and timeframes of scheduled maintenance and appear to be working well from an information disclosure perspective. The importance of transmission outage information was highlighted in the recent Maui Pipeline event related to the defect on the

pipeline in Tongaporutu, Taranaki. Gas Industry Co acknowledged and commended First Gas on its exemplary communications strategy on the event<sup>5</sup>. Both the MPOC and the VTC may be replaced by a single code, Gas Transmission Access Code (GTAC), but Gas Industry Co is comfortable that the proposed new arrangements for maintenance information would provide the same or better information to the market than the current codes.

*Q1: Should shippers be included in an information regime? If so, what information do you consider should be disclosed?*

*Q2: Is the information currently disclosed by the transmission pipeline operator sufficient? If not, what further information should be released through information disclosure arrangements?*

## Upstream Sector

### Overview

The supply side of the New Zealand gas sector is concentrated. While there are several E&P companies (exploration & production or 'upstream' companies) in New Zealand (see Table 3), ownership of the petroleum fields that produce most of the gas is concentrated in a handful of companies. For instance, around 78 percent of gas that was produced in 2017 was from fields now owned separately or jointly by Todd Energy and OMV.

### Potential Information Issues

The capital-intensive nature of gas supply combined with a desire for supply certainty from major gas users has led to long-term, bilateral gas supply contracts being the preferred market arrangement. Most gas in New Zealand is sold via these types of contracts. This is similar to the arrangements in other gas markets; for instance, most gas supplied in the Australian gas markets is sold under bilateral contracts (see Appendix A). Upstream parties are understood to provide production-related information (for example, information relating to outages) to contract counterparties; however, we understand that these contracts have confidentiality clauses that restrict wider disclosure. Information is not generally shared with the wider gas sector.

Gas Industry Co also understands that for fields owned by Joint Venture (JV) entities, the JV arrangements between parties limit the disclosure of information publicly.

This prevalence of bilateral supply contracts is a contributing factor in possible information transparency and asymmetry issues in the wholesale gas market. Large gas users (including shippers) have separate bilateral contracts for various fields. These parties may have a reasonable level of knowledge about issues affecting the fields they are supplied from and the market overall. There are very few market participants that fit into this category. Other major users and shippers have supply agreements with a small number of fields. They may receive information related to the specific fields they take gas from but have limited information on issues affecting production in other fields. A similar issue was highlighted in the reviews of both the East Coast Australia and Western Australia information disclosure regimes (see Appendix A).

The information that is available from upstream parties, and information gaps, are summarised in the following table. For comparison, we also include a summary of the information that is disclosed in other countries and markets (see Appendix A).

<sup>5</sup> Gas Industry Co News Bulletin, 3 December 2018, <https://www.gasindustry.co.nz/dmsdocument/6410>

**Table 4 Upstream Sector Information**

Information currently disclosed in New Zealand gas market	Information gaps in New Zealand gas market	Information available in other markets
<b>Reserves information</b> <ul style="list-style-type: none"> <li>Annual petroleum field reserves (2P and 2C) and production information are disclosed under the Crown Minerals Act (1991) (CMA).</li> </ul>	1. MBIE publishes 2P, 2C and production information annually. However, the 2C reserve information reported by companies is incomplete. Cost information related to production is not reported publicly (see below).	2. 2P reserves will be disclosed in the revised East Coast Australia gas bulletin board.  3. The ASX listing rules <sup>6</sup> require E&P companies to publicly report estimates of petroleum reserves, contingent resources or prospective resources.
<b>Forecast Production Information</b> <ul style="list-style-type: none"> <li>No forecast production information is provided.</li> </ul>	4. Parties do not disclose production forecast information.	5. Forecast production for the week ahead is disclosed in the East Coast Australia and WA bulletin boards.
<b>Permit information</b> <p>6. Prospecting, exploration and mining information is disclosed under the CMA to MBIE.</p>	7. Information is published by MBIE with a five-year lag. Some information is redacted.	8. Exploration data is collected and published by the state governments in Australia. There are significant differences in the public release of information between jurisdictions. In addition, information is often scattered and fragmented <sup>7</sup> . This issue is currently under review.
<b>Planned outage information</b> <ul style="list-style-type: none"> <li>Planned outage information is made available to gas supply agreement (GSA) counterparties, depending on JV confidentiality provisions and GSA provisions.</li> </ul> <p>Some information is voluntarily made public. For example:</p>	<ul style="list-style-type: none"> <li>Generally, information on planned outages (particularly production information) is not disclosed publicly.</li> </ul>	<ul style="list-style-type: none"> <li>Planned outage information is disclosed in the East Coast Australia and WA bulletin boards, European electricity and gas markets (REMIT) and the NZ electricity market.</li> </ul>

<sup>6</sup> ASX Listing Rules Guidance Note 32

<sup>7</sup> ACCC and GMRG (2019). *Measures to improve the transparency of the gas market: joint recommendations*.



Information currently disclosed in New Zealand gas market	Information gaps in New Zealand gas market	Information available in other markets
<ul style="list-style-type: none"> <li>• OMV recently provided high-level information on its 2019 Pohokura Intervention Campaign</li> <li>• Start/end date information for shutdowns and turnarounds for Todd Energy, Beach Energy and Westside Energy operated fields are published on Jam Solutions' shutdown plan. However, not all field operators contribute information to this schedule.</li> </ul>		
<b>Unplanned outage information</b> <ul style="list-style-type: none"> <li>• Unplanned outage information is made available to gas supply agreement (GSA) counterparties, depending on JV confidentiality provisions and GSA provisions.</li> </ul>	<ul style="list-style-type: none"> <li>• Information on unplanned outages is not disclosed publicly.</li> </ul>	<ul style="list-style-type: none"> <li>• Unplanned outage information is disclosed in the East Coast Australia and WA bulletin boards, European electricity and gas markets (REMIT) and the NZ electricity market.</li> </ul>

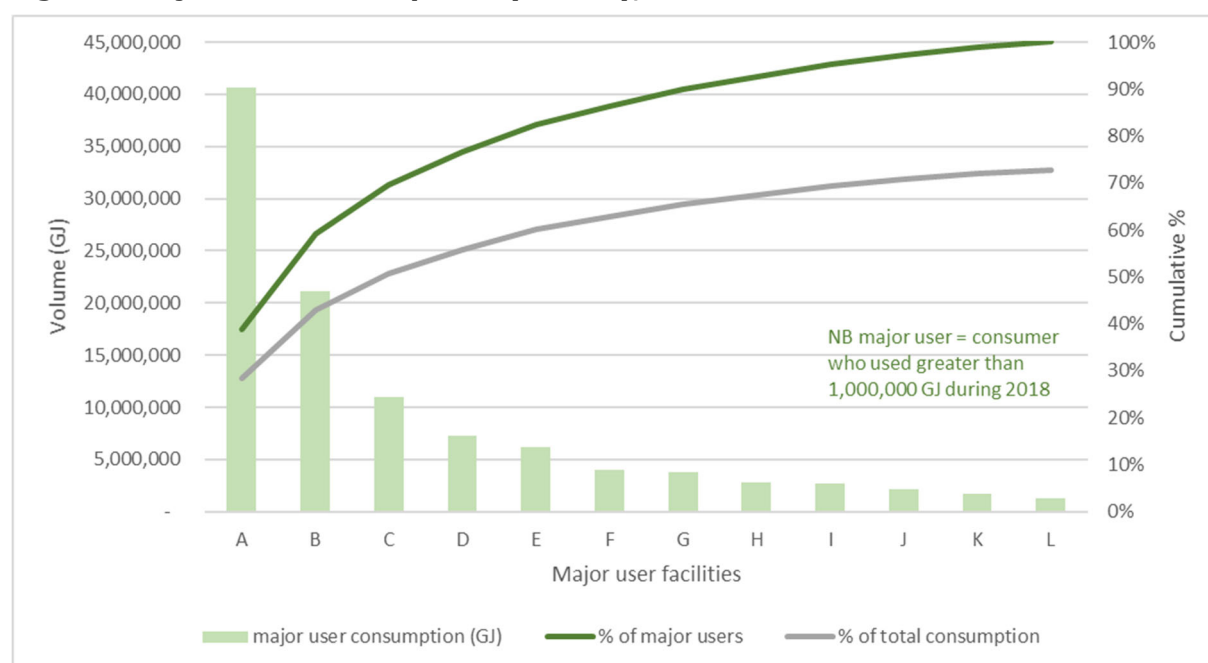
*Q3: Have the upstream sector and its potential information issues been characterised appropriately? Have we missed aspects of the problem or are there parts of the problem that we have not described correctly? Please include details and any examples in your response.*

## Demand Side Parties

### Overview

The demand side of the gas sector is also concentrated. Most of the gas that is produced in New Zealand is consumed by a relatively small number of major users. Some of these users operate directly in the wholesale market. Figure 1 below shows the gas consumption of major users on a facilities basis. The numbers displayed only include the volumes that were shipped via the transmission system as Gas Industry Co does not have access to volumes shipped on private networks during 2018. Figure 1 highlights that just three major user facilities used about 50 percent of all gas consumed in calendar year 2018.

**Figure 1 Major User Consumption by Facility, Calendar Year 2018<sup>8</sup>**



### *Potential Information Issues*

The actions of all participants affect a market, whether they are producers or consumers. An outage at a major user's plant has the potential to affect the volumes and prices traded by brokers or through emsTradepoint. Accordingly, it is important that major users share information, enabling information transparency in the market.

The information that is available from demand-side parties, and information gaps, are summarised in the following table. Also included in the table is a summary of the information that is disclosed in other countries and markets (see Appendix A).

<sup>8</sup> Data sourced from OATIS, <https://www.oatis.co.nz> and the Gas Allocation Portal, <https://gasreconciliation.co.nz/>

**Table 5 Demand Side Information**

Information currently disclosed in New Zealand gas market	Information gaps in New Zealand gas market	Information available in other markets
<b>Planned outage information</b> Some voluntary disclosure: <ul style="list-style-type: none"> <li>Start/end date information for shutdowns and turnarounds for some major gas users is listed on Jam Solution's outage schedule. But not all major gas users contribute to this schedule.</li> </ul>	9. Generally, information on major gas users' planned outages (particularly consumption information) is not disclosed publicly.  10. Methanex does not provide information on its planned outages. It used to provide information for the Jam Solutions schedule but stopped in Q1 2017.	11. New Zealand electricity companies provide information on the availability of assets including gas-fired generation, following the information disclosure requirements in the Electricity Industry Participation Code (2010).  12. Information on major users' (particularly LNG facilities) planned outages either is or will be disclosed on the Australian bulletin boards.  13. Planned outage information is disclosed under the REMIT regime in Europe.
<b>Unplanned outage information</b> <ul style="list-style-type: none"> <li>As a general rule parties do not publicly disclose unplanned outage information.</li> </ul>	<ul style="list-style-type: none"> <li>Parties do not publicly disclose unplanned outage information.</li> </ul>	<ul style="list-style-type: none"> <li>Unplanned outage information (particularly for LNG facilities) either is or will be disclosed on the Australian bulletin boards.</li> <li>Unplanned outage information is disclosed in the New Zealand electricity sector given the requirements under the Code.</li> <li>Unplanned outage information is disclosed under the REMIT regime in Europe.</li> </ul>

*Q4: Have the demand-side and its potential information issues been characterised appropriately? Have we missed aspects of the problem or are there parts of the identified problem that we have not described correctly? Please provide details and any examples in your response.*

## Wholesale gas trading

### *Overview*

A private wholesale gas trading mechanism was established in September 2013. Called emsTradePoint and operated by Transpower, it is a blind, centrally-cleared market that has attracted a number of trading participants. Information on emsTradePoint, including its rules, can be found at [www.emstradepoint.co.nz](http://www.emstradepoint.co.nz).

Gas trading through the emsTradePoint market and brokers is a significant but relatively small part of the overall gas wholesale market. Total trades in 2017 were 6.3 PJ or around three percent of the market.

### *Potential Information Issues*

At one stage, emsTradePoint provided publicly available lagged volume and price data on its market but stopped in April 2018. This information is now restricted to market participants; there is currently no public disclosure of lagged volume and price data on the emsTradePoint market. In contrast, lagged price information for both the NZX and the electricity wholesale market is publicly available. Wholesale market information is also available on the Australian bulletin boards.

## 2.4 Case Study: 2018 Pohokura Outages

The recent outages at the Pohokura production station have highlighted the importance of information disclosure. In this section, we provide a case study of these outage events as an insight into opportunities for possible improvements to information transparency in the gas sector.

### **Pohokura Outage Events**

There were two unplanned outages at the Pohokura production facilities in 2018. These two events were unrelated to each other.

- *Pipeline outage:* In March 2018 the Pohokura operator discovered a small vapour discharge from a section of the multi-phase pipeline that carries gas and condensate from Pohokura's offshore wells to the Pohokura production station for processing. Production from the offshore Pohokura platform was shut down while the pipeline was inspected and tested. Gas production restarted in the latter half of July. Media first reported the outage in April and in June indicated that production should resume the following month. In late June, the operator publicly disclosed that a section of pipeline would likely be replaced later that year and that a further outage in production from the offshore wells would be required to complete this work.
- *Shutoff valve outage:* In September 2018 a problem was discovered with a pipeline shutoff valve located on Pohokura's offshore platform, and production from the offshore wells was shut down. The operator replaced the valve. It also installed a new section of pipeline to replace the section that had caused the earlier shutdown (as the operator signalled in June). Production from the offshore wells restarted the second week of December. Media first reported the outage at the end of September and in October indicated that production should resume by the end of November. At the end of November, it was reported that production should resume the following week.

Figure 2 below shows the relationship between production at Pohokura during 2018 and both the volumes and prices of gas sold on the emsTradePoint wholesale market. During both outage events, volumes from Pohokura dropped by about 100,000 GJ per day. In the second event, volumes offered on emsTradePoint dropped and wholesale prices on emsTradePoint markedly increased. However, a similar response was not observed for the first event. During the first

event, Methanex was able to bring forward planned maintenance and voluntarily scaled back gas consumption. This action was able to counteract some of the effects of the outage. Methanex again scaled back consumption during the second event but was not able to reduce to the same level as in the first event.

### Stakeholder Concerns

In the Electricity Authority's (EA) recent decision on the November 2018 claim of an undesirable trading situation (UTS) in the electricity wholesale market<sup>9</sup> (UTS decision), the EA highlighted a lack of available gas outage information. This concern was also raised with Gas Industry Co by a number of industry participants. Discussions with stakeholders showed a general concern with the amount of information that was available during the Pohokura outage events and the level of information asymmetry. Further to this, Gas Industry Co received two letters that formally detailed some of those concerns (from the Major Gas User Group (MGUG) and Trustpower).

In the UTS decision, the EA found there was information asymmetry with regard to gas outage information although, it considered that this asymmetry was small and often non-material, and the best available information was still uncertain. The EA signalled that "the perception of information asymmetry was larger than the actual asymmetry... this was largely caused by difficulty in accessing information regarding gas outages and other indicators of the gas supply situation." However, the EA noted that Pohokura nomination and delivery information was publicly available on OATIS.

In a letter received by Gas Industry Co MGUG highlighted that the lack of information around the outages, specifically when supply might be restored, was insufficient and resulted in delayed deliveries to customers. MGUG were concerned that the outages caused "considerable cost and disruption" and that the confidence in the gas market had been "seriously undermined" as a result. Trustpower's letter similarly noted that the information supplied during the outages was not "readily available to the broader market" and this "impacted market outcomes". Trustpower considered that information asymmetry in the gas industry was an issue that required urgent attention.

Gas Industry Co is interested in hearing from stakeholders about what information issues they see in the sector. We note that the UTS decision highlighted that there are potential or ongoing investigations underway into the Pohokura event and the electricity markets. The questions below are intended to focus on gas information disclosure generally rather than undertaking a detailed investigation into the Pohokura event. However, stakeholders may wish to refer to recent experiences (including the Pohokura event) to inform our assessment of current information disclosure within the industry.

- Q5: What processes does your organisation have to obtain information ahead of, and during, periods of reduced gas supply?*
- Q6: How is your organisation impacted during periods of reduced gas supply? Please provide details (including costs) and any examples in your response.*
- Q7: What steps does your organisation's risk assessment or business continuity plan expect to be undertaken to limit the impact of periods of reduced gas supply?*

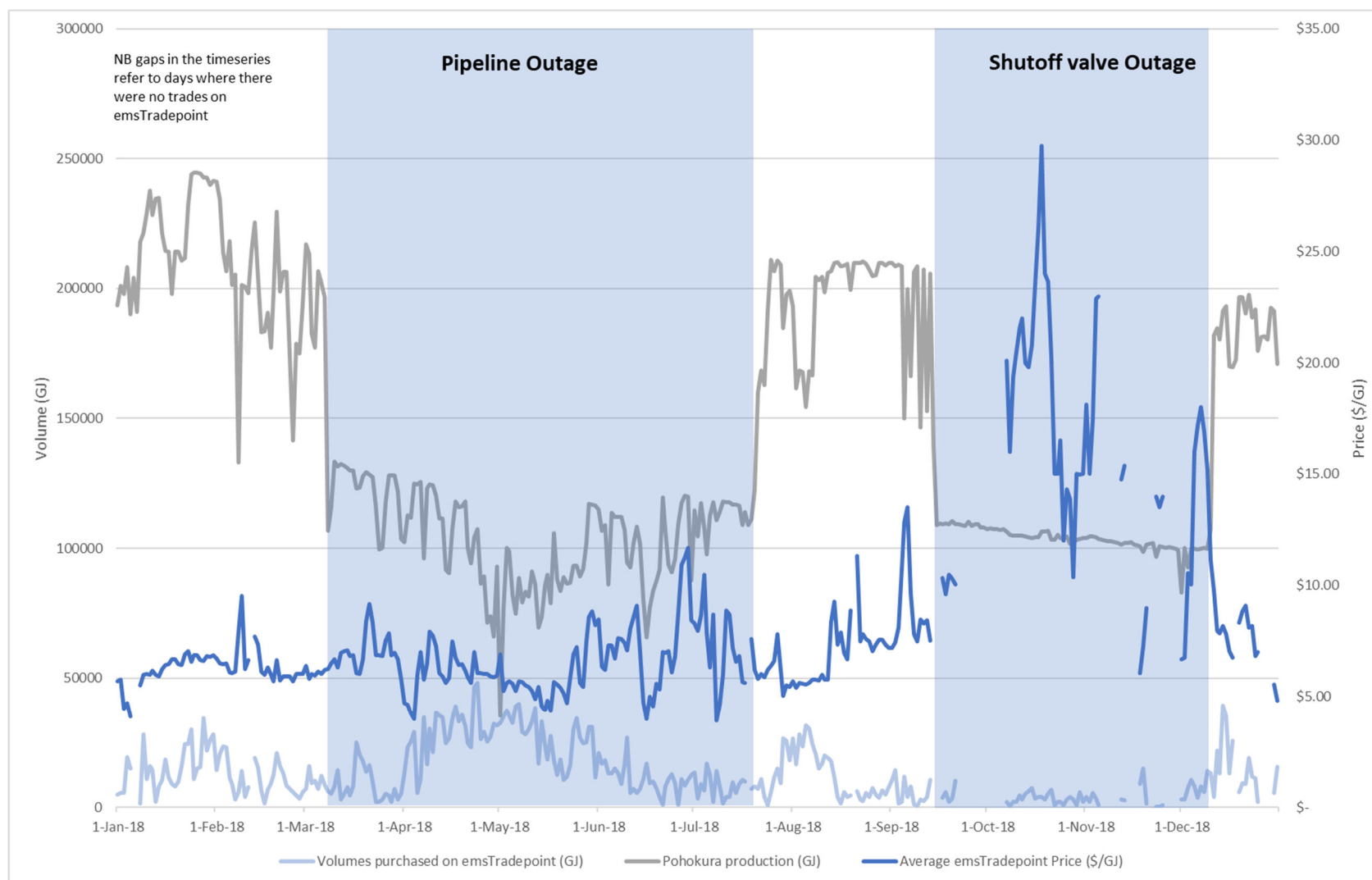
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<sup>9</sup> Electricity Authority (2019). The Authority's decision on claim of an undesirable trading situation: Claim submitted 8 November 2018 by Electric Kiwi, Flick Energy, Pulse Energy, Switch Utilities (Vocus), and Vector, 28 February 2019.

*Q8: Taking into account your risk assessments and business continuity plans, what information do you use and what further information would be useful to your organisation to inform your actions and decisions during periods of reduced gas supply?*

*Q9: Is there any further information regarding outages that you would like to share?*

**Figure 2 Pohokura volumes and emsTradepoint volumes and price<sup>10</sup>**



<sup>10</sup> Data sourced from OATIS, <https://www.oatis.co.nz> and emsTradepoint, <http://www.emstradeptpoint.co.nz/>

## 2.5 Is There a Problem?

The earlier discussion highlighted that there are information gaps in parts of the wholesale gas market. The combination of a concentrated, 'thin' market and bilateral contract arrangements (that have varied arrangements for information sharing) for most gas supply means that producers do not generally share information across the New Zealand gas market; information is generally limited to contract counterparties. Likewise, major users do not share outage information that may affect the gas wholesale market. Even emsTradepoint, the gas wholesale trading market, has market price and volume information behind its paywall. These issues were highlighted in the recent Pohokura outages, discussed in the previous section.

There are costs to parties associated with providing information publicly. We note that some parties may consider that additional information disclosure could affect their commercial positions. Some major users have commented that disclosure of outage information may affect their international competitiveness: competitors (who do not face such disclosure) could use the information to improve their position in the market.

### Summary of Potential Information Issues

The possible information problems identified previously are summarised in the following table.

**Table 6 Potential Information Issues**

Potential Problem	Comment
Planned and unplanned outage information related to production and major gas user facilities is generally not available publicly (notwithstanding recent disclosure by some parties, e.g. some high-level information on the Pohokura Intervention Campaign). Examples of recent events where information was limited include the Pohokura flexible pipeline leak, the Pohokura offshore platform shutdown valve failure, Kupe production facility planned maintenance outage (information was made available when requested) and Methanex's planned outage.	Major plant outages may affect the wholesale market. Limited information transparency and information asymmetry related to outages may impact on the efficient operation of the market and lead to fairness issues. Outage information is disclosed in all the markets we have reviewed.
emsTradepoint volume and price information is not publicly available – it sits behind a paywall. The information was placed behind the paywall in April 2018.	Energy sector participants or other interested parties who are not subscribers to emsTradepoint have no visibility of gas wholesale market signals. In contrast, market information is available publicly in the wholesale electricity market, the NZX (with a lag) and the Australian gas markets.
Average wholesale price and aggregate traded volume (covering gas traded under bilateral contracts, brokered arrangements and the emsTradepoint market) is not available to the market.	An understanding of market fundamentals, including quantity and price, is important for market participants to make good decisions. It is also important information for Gas Industry Co in its co-regulatory role.
There is no information available on forecast production over the short term (e.g. one week) or medium term (one year).	A lack of information on future gas supply is one of several factors that may limit the demand-side's understanding of gas availability and liquidity. They are less likely to use the



Potential Problem	Comment
	<p>wholesale trading market or brokers to secure supply.</p> <p>This unavailability of forecast supply information may limit the electricity system operator's understanding of electricity security of supply – gas-fired generation is an important part of New Zealand's electricity generation fleet, particularly during periods of low inflows into the hydro lakes and peak winter demand. This information is particularly important in New Zealand due to our high penetration of renewable generation and growing share of intermittent generation.</p>

*Q10: Have the potential information problems in the wholesale gas market been identified appropriately? Have we missed aspects of the problem or are there parts of the problem that we have not described correctly? Please provide details and any examples in your response.*

### Relevance to Government Policy Objectives

In the following table we list the relevant objectives in the Gas Act and GPS (see Appendix C) and comment whether the current state of information availability in the wholesale gas market enables these outcomes to be achieved.

**Table 7 Government Policy Objectives and Information Availability**

Government Policy Objective	Comment
The facilitation and promotion of the ongoing supply of gas... by providing access to... competitive market arrangements	Some gas wholesale market participants may be making decisions based on incomplete, inaccurate and dated information. Given that information availability for all market participants is a condition for an efficient market, this implies that there may be issues with the function of the wholesale gas market.
Barriers to competition in the gas industry are minimised	The inability for all parties to have access to a common pool of information may restrict competition in the market.
Incentives for investment in gas processing facilities, transmission and distribution are maintained or enhanced	Upstream investment is unlikely to be affected by limited information because investment decisions are associated with supply agreements with downstream users. However, a lack of information transparency may adversely affect other parties' ability to make investment decisions.
Delivered gas costs and prices are subject to sustained downward pressure	Limited information transparency and asymmetry between parties may lead to

	delivered gas costs and prices being higher than they otherwise would be.
Risks relating to security of supply... are properly and efficiently managed by all parties	Effective and efficient risk mitigation (including security of supply risks) requires all parties to have complete, accurate and timely access to market information. A lack of information transparency and information asymmetry implies that risks in the gas market and broader energy sector may not be properly and efficiently managed by all parties.

From the above table it appears that current information arrangements in the wholesale gas sector may not meet some of the objectives set out in the Gas Act and GPS. There may be a need for improved information transparency and availability to ameliorate the issues and consequences identified in the above table.

- Q11: Have the potential information transparency and availability issues in the wholesale gas sector been analysed appropriately against the Gas Act and GPS objectives? Are there elements of the analysis that have been missed or parts of problem that have not been analysed properly? Please explain your reasoning.*
- Q12: Has the proposed problem statement been characterised appropriately? Have we missed aspects of the problem or are there parts of the problem that we have not described correctly? Please include details and any examples in your response.*

## 3. Information Disclosure Options

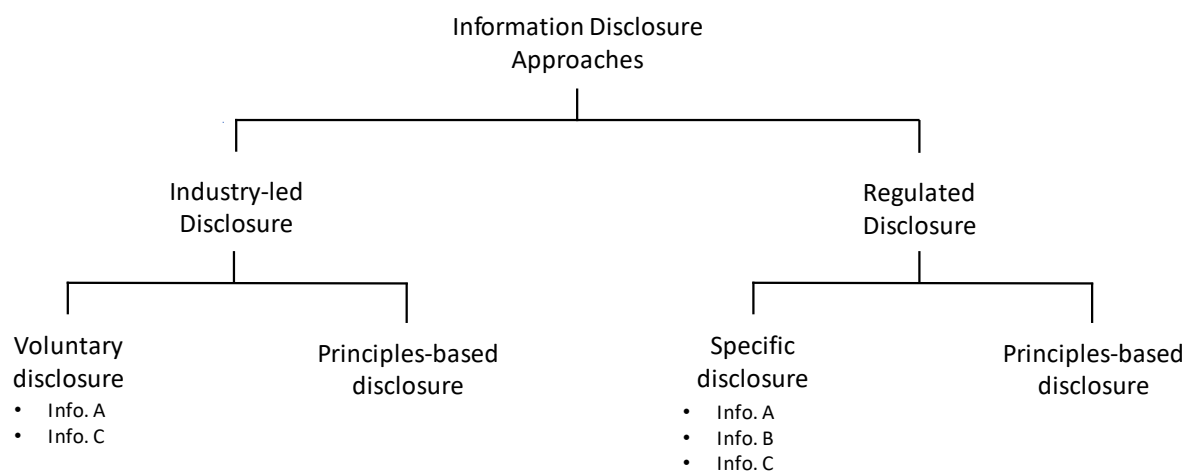
### 3.1 Introduction

In this section, options for addressing the potential information issues identified in the previous section are discussed. Several approaches to information disclosure are reviewed. The coverage of information disclosure across various parties in the sector is discussed. Various specific types of information that could be disclosed are set out, along with advantages and disadvantages of disclosing this information. Finally, possible channels for publishing information are identified.

Some of the information identified in these options may be considered by some parties to be of a confidential nature. In parties' responses to this paper, it is critical that any claim of information confidentiality is accompanied with a clear justification for such a claim. It is also important that parties identify the value of various options. This feedback will enable Gas Industry Co to gain an understanding of the trade-offs between confidentiality, transparency and value.

### 3.2 Approaches to Information Disclosure

There are three broad approaches to information disclosure that could be adopted. These are described in the diagram below and the discussion that follows.



#### Voluntary Disclosure

This voluntary disclosure option would involve parties disclosing information on a voluntary basis under an industry-led information disclosure protocol. Industry parties would agree a framework for voluntary information disclosure that enabled a consistent approach across events and parties. This framework would set out the various 'rules' around disclosure, including the types and particular elements of information that would be disclosed. Voluntary disclosure may be thought of as a voluntary version of 'specific' disclosure, which is discussed below; however, the types of rules are likely to be different between the two regimes (see the discussion under the disadvantages heading).

This option would be implemented as an industry-led arrangement; regulations would not be required to implement parties' voluntary disclosure of information. Implementation issues are discussed further in the following section.

### *Advantages*

The advantages of voluntary disclosure as an information disclosure option stem primarily from the fact that regulation would not be required to implement the regime.

A voluntary disclosure approach is likely to be a relatively low-cost solution, since the costs associated with introducing regulation would be avoided. There would still be some compliance costs, but these are likely to be relatively low compared to other disclosure options.

A voluntary approach would be a light-handed, relatively unobtrusive option for improving information relating to the wholesale gas market.

This option could be relatively simple to implement once parties agreed to a disclosure framework.

### *Disadvantages*

Some parties have told Gas Industry Co that they do not support information disclosure. It is likely that they would not participate in voluntary information sharing. We understand that some JV arrangements between upstream parties may preclude voluntary information disclosure of information affecting the wholesale market. There would be incentives for some parties to hold-out on information disclosure. A party may gain competitive advantage if competitors disclose information, but they do not. Partial coverage of wholesale market participants would undermine a voluntary disclosure regime.

Even if all parties were willing to participate in a voluntary information disclosure regime, it may be difficult to get agreement across parties to any form of meaningful disclosure framework. The framework may need to be 'watered-down' in order to get acceptance across all parties. It could take a long time to get a framework in place.

Furthermore, even supposing the above obstacles were overcome, a voluntary disclosure regime may not work in practice. Information disclosure could be uneven – between parties, events and over time. Incomplete or inconsistent information disclosure between parties could create uncertainty in the market. Voluntary arrangements could break down over time, requiring regulatory intervention.

Finally, there would be no regulatory incentives to encourage appropriate behaviours. There would continue to be limited ability for Gas Industry Co to investigate cases where there is a concern that a lack of information had caused issues in the market.

*Q13: Has the voluntary disclosure option been identified appropriately? Are there alternative versions of the option that are worthy of consideration? Please provide reasons in your response.*

*Q14: Do you agree with the advantages that have been identified for the option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?*

*Q15: Do you agree with the disadvantages that have been identified for the option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?*

*Q16: Given the advantages and disadvantages, do you consider that that voluntary disclosure option is a viable option? Please provide the reasoning behind your answer, including details and any examples.*

## Principles-based Information Disclosure

A principles-based approach to information disclosure is a mode of disclosure that relies upon principles as opposed to distinct rules. The approach is based on achieving an outcome rather than setting detailed rules that parties must adhere to.

Under a principles-based approach to information disclosure, producers, transmission owners and major users would disclose any information that they hold that they expect would have a material impact on prices in the wholesale market if it was made publicly available. This would be measured by prices in emsTradepoint.

This principles-based approach is used in REMIT (the market monitoring framework in the European energy sector), the NZX, and the New Zealand electricity sector:

- REMIT. Under REMIT, market participants must publicly disclose inside information that they possess. This includes information regarding the capacity and use of facilities (including planned and unplanned outages); information that has not been made public; and information which, if made public, would be likely to significantly affect the prices of those wholesale energy products. The REMIT regime includes rules (thresholds) around who discloses. Further details are included in Appendix A.
- Under the NZX's continuous regime, parties must disclose any information that a reasonable person would expect, if the information were generally available to the market, to have a material effect on the NZX market. The regime includes limited exceptions to this requirement. This continuous disclosure regime is coupled with practice notes that specify particular types of information that must be disclosed.
- The New Zealand electricity Code also places a continuous disclosure obligation on participants. It requires that participants disclose, in a timely manner, any information that they hold that they expect would have a material impact on prices in the wholesale market if it was made publicly available. The Code includes several of exclusions allowing participants to withhold information to minimise potential adverse impacts from disclosure. Further details are included in Appendix A. The electricity Code also includes rules-based disclosure around planned asset outages. We understand that this duality in the code is due to various parts of the Code being introduced at different times, rather than a need for explicit disclosure provisions for planned outages.

Under this approach, it would be left up to individual parties to determine whether they should disclose particular pieces of information. Gas Industry Co would develop guidelines to assist parties in making this judgement.

Information disclosure exclusions could be established so that some particular categories of information would not have to be disclosed e.g. information that a reasonable person would not expect to be made readily available (this criterion is one of several in the electricity Code).

Parties' disclosure would need to be monitored to ensure their behaviour is consistent with the regime. There would need to be appropriate incentives to encourage parties to act in accordance with the disclosure requirements.

In all of the countries and markets we have reviewed, principles-based information disclosure is implemented under regulation. It is conceivable that it could be implemented as an industry-led arrangement; however, the practical issues associated with this approach make this unlikely. For instance, compliance monitoring and particularly enforcement would be difficult under an industry-led approach. The following discussion assumes that principles-based information disclosure would be implemented as a regulatory solution. This topic is picked up again in the implementation section.

### *Advantages*

A key advantage of a principles-based approach to disclosure is that it is a broad approach that can cover a variety of circumstances, some of which may be unforeseen at the time rules are put in place. It is outcomes-based regulation; that is, the disclosure regime is focussed on achieving the desired outcome – an efficient wholesale gas market – rather than a prescriptive rules-based approach. Compared with a rules-based approach, it is less likely to require amendments to cover unanticipated information requirements or issues.

The approach would align information disclosure in the gas wholesale sector with the disclosure regime in the NZ electricity sector, which could be advantageous given the linkages between electricity and gas. The recent Pohokura outage and the lack of information disclosure on the event has highlighted the importance of timely and relevant gas information for both sectors. However, it is unclear that the form of information regime in the gas sector would need to be the same as the electricity sector in order to get alignment across the two sectors. For example, if outage information in the gas sector is the most important information for the electricity sector, a specific rules-based regime (see below) might fit just as well as a principles-based approach.

### *Disadvantages*

An issue with principles-based regulation generally is that it may lead to uncertainty as to whether a party should disclose particular pieces of information. This may unnecessarily increase costs. For example, REMIT has been critiqued as not having clear criteria as to what should be reported and has resulted in time-consuming over-reporting.

Following on from the previous point, principles-based disclosure can require high levels of guidance from the regulator so that uncertainty is reduced. For example, the Electricity Authority has published guidelines to assist electricity industry participants with their understanding of, and compliance with, obligations under the wholesale market information disclosure provisions.

It is more difficult for the regulator to monitor compliance under a principles-based information disclosure regime relative to a rules-based approach. The implication is that monitoring costs may be higher. Likewise, this approach may have higher compliance costs.

Individual parties may take different approaches to information disclosure because the approach is non-prescriptive. A diversity of compliance approaches between parties may create a higher risk that firms do not comply, or that the regulator undertakes inconsistent enforcement.

If exclusions are included in the regulation (e.g. like the exclusions in the electricity Code), there may be disagreement over whether these exclusions apply in some situations.

*Q17: Has the principles-based information disclosure option been identified appropriately? Are there alternative versions of the option that are worthy of consideration? Please provide reasons in your response.*

*Q18: Do you agree with the advantages that have been identified for the option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?*

*Q19: Do you agree with the disadvantages that have been identified for the option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?*

*Q20: If a principles-based information disclosure option is adopted do you think there should be exclusions on information that is disclosed? If so, what types of exclusion should be considered and why? If confidentiality is a concern, please explain why this is the case, including any details and examples.*

### **Specific Information Disclosure**

A specific approach to information disclosure is where the information provided by parties is based on their compliance with specific disclosure rules. A rules-based approach is used in the Western Australia and East Coast Australia gas markets, with information published in bulletin boards and gas statements of opportunity. There are also rules in the electricity Code regarding planned asset outages.

Specific information disclosure is broadly similar to voluntary disclosure, with the key distinction that the regime is a regulatory solution.

#### *Advantages*

The key advantage of this approach is that disclosure requirements are well-defined. It is relatively clear what information must be supplied, and the various parameters associated with that disclosure of information.

Specific rules-based disclosure is likely to be more cost-effective than the principles-based alternative because it reduces the need for the regulator to make investigations and exercise judgment. Similarly, it is also likely to be more cost-effective from a compliance perspective.

A specific approach is less likely to be affected by allegations of regulatory inconsistency, bias or arbitrariness.

#### *Disadvantages*

A specific rules-based information disclosure is a rigid approach to information sharing. As a result, it may not be adaptable to changes in the gas wholesale market environment. Revisions to the rules may be required over time.

There may be challenges associated with drafting precise rules that cover all the information that should be disclosed. Rules can contain gaps and ambiguities.

A practical issue with rules-based information disclosure is the potential for parties to 'game the rules' and actively seek out loopholes which allow them to be strictly compliant but limit the information they share.

Finally, the approach would be different to the information disclosure regime in the New Zealand electricity sector. However, this difference may be of no practical consequence to the fit between the two sectors; a specific approach to information disclosure in the gas sector could work with the framework used in the electricity sector, depending on the design of the regime (see the discussion in the previous section).

*Q21: Has the specific information disclosure option been identified appropriately? Are there alternative versions of the option that are worthy of consideration? Please provide reasons in your response.*

*Q22: Do you agree with the advantages that have been identified for the option? Have any other advantages been missed or are there advantages that have been listed that are mischaracterised?*



*Q23: Do you agree with the disadvantages that have been identified for the option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?*

## **Mixture of Options**

An information disclosure regime may be a combination of these various approaches. For instance, a principles-based regime may be mixed with specific rules-based disclosure. The NZX disclosure regime is an example of this mixed approach. Information disclosure in the NZX is a continuous disclosure regime, which is principles-based approach. This continuous disclosure regime is coupled with practice notes that specify particular types of information that must be disclosed.

## **3.3 Implementation Options**

### **Overview**

There are two broad implementation options for information disclosure: a regime could be introduced either as an agreed industry arrangement (i.e. an industry-led arrangement) or alternatively through regulation.

As we discussed earlier, the voluntary information disclosure option falls under the industry-led heading. Likewise, specific information disclosure (which could be considered as a regulatory equivalent of the voluntary approach) is a regulatory solution.

Principles-based disclosure could conceivably be implemented as an industry arrangement or as a regulatory solution, although the former would be a unique approach relative to the regimes in other countries and markets we have reviewed. An industry-led approach would require the industry to actively self-police information disclosure from all relevant parties. It would require proactive monitoring and enforcement (for example, if there were allegations a party did not fully disclose information, Gas Industry Co would need to be able to investigate the issue fully by reviewing its activities) so that parties would be incentivised to disclose all relevant information likely to affect the gas market. We consider that the practical issues with implementing this form of disclosure under industry-led arrangements may make this implementation option untenable. We welcome parties' views on this issue.

### **Issues**

The key advantage of an industry-led approach (compared with the regulatory alternative) is that it is likely to be a relatively light-handed, unobtrusive option for improving information relating to the wholesale gas market.

However, a major issue with this approach is whether parties would agree to an information disclosure regime that is effective in providing information that enables information transparency. As we noted in the voluntary disclosure discussion, it appears that getting agreement across the sector may be difficult. Some parties have told Gas Industry Co that they do not support information disclosure. Partial coverage of participants or a 'watered-down' form of regime would limit information transparency and may not fully address issues of information asymmetry in the gas wholesale market.

*Q24: Have the implementation issues associated with the information disclosure options been characterised appropriately? Are there further points that we have missed or are there issues that have been mischaracterised?*



*Q25: Do you think that principles-based information disclosure based on industry-led arrangements is a viable option? Please provide the reasoning behind your answer.*

### 3.4 Coverage

As we have discussed, the objective of introducing information disclosure is to improve information transparency and reduce information asymmetry to promote fairness and improve efficiency in the wholesale gas sector. Given this objective, the coverage of information disclosure should extend across all parties in the gas wholesale market that could either directly, or indirectly, affect gas volumes and price in the wholesale market. For instance, actions of major users that affect the market may have just as much impact as actions by producers.

This logic has driven the coverage of information disclosure in the New Zealand wholesale electricity sector, Australian gas markets and the European electricity and gas markets. Disclosure arrangements in the electricity sector cover all electricity participants. The disclosure regime in the East Coast, Australia region includes producers, transmission operators, storage providers and major users. In Europe, the disclosure regime covers the operators of transmission and transportation networks, both electricity and gas traders, electricity and gas producers and major users.

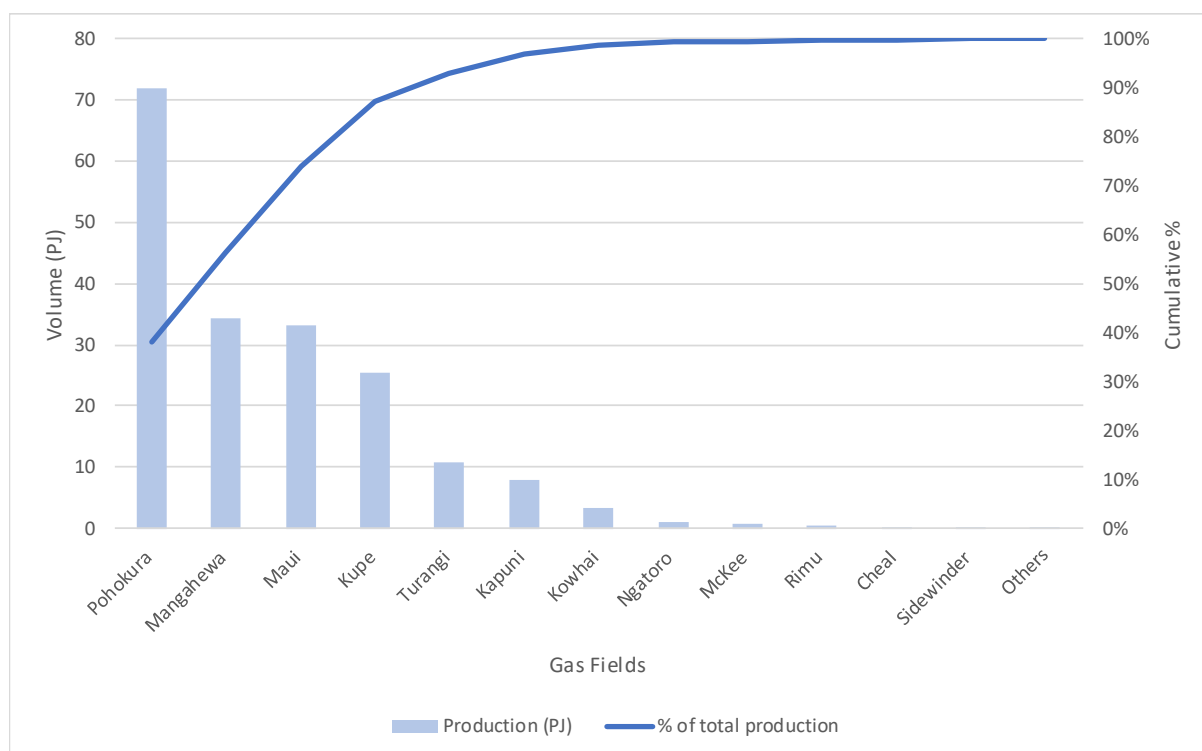
Following this logic, the parties covered by information disclosure obligations should include:

- Producers;
- Shippers;
- Transmission pipeline operators;
- Major users that have facilities over a certain threshold size (see below);
- Traders;
- Market operation service providers.

Minimum size thresholds for disclosure by both producers and consumers are included in several markets (including Europe, Western Australia, Australian East Coast) – only facilities over a minimum size are required to disclose information. The rationale for a threshold is that, at a practical level, changes in gas supply or demand at ‘small’ facilities are unlikely to have a material impact on the wholesale market. However, the compliance costs associated with disclosure may be similar for facilities of differing sizes. Information disclosure for small facilities may not make sense from a cost/benefit perspective.

If a minimum threshold is put in place, the number of parties that would have to disclose could be reasonably small (depending on the size and type of threshold). As we note in section 2.3, major users make up about 70 percent of consumption in the New Zealand gas market (see Figure 1). Three consumer sites make up 70 percent of those major users (50 percent of the entire market). Figure 2 shows that just one production field accounts for nearly 40 percent of gas in the market and together four fields provide 90 percent. This leaves the remaining 11 fields providing 10 percent of total production.

**Figure 3 Production by Gas Field, Calendar Year 2017<sup>11</sup>**



Given this concentration of both production and consumption, information that could materially affect the gas wholesale market is likely to be restricted to a relatively small number of parties and their facilities. It may be appropriate to set materiality thresholds so that the information disclosure regime is limited to these large facilities. Since actions by producers and consumers affect the market equally, it may be appropriate to make the threshold the same across parties in the wholesale market.

Some major users have argued that disclosure of outage information (particularly planned outages) may confer an advantage to overseas competitors who do not face such disclosure. For this reason, they argue that they should be exempt from the disclosure of information that may have an impact on their international competitiveness. This argument was one of the primary concerns raised by LNG companies in Australia when the Bulletin Board regime was extended to include major users. In particular, the LNG producers were concerned that publishing information about planned and unplanned outages could reveal their position and affect any negotiations to obtain LNG from other sources to meet their supply contracts. They argued that requirements for them to report gas consumption and capacity outages would be unique internationally. The AEMC noted that there may be few information disclosure requirements in many LNG exporting countries; however, requirements do exist where LNG facilities are integrated into domestic markets in developed countries (including the UK, United States and Europe). The AEMC determined that the potential benefits to the domestic market from providing this information outweigh the potential detriments to LNG producers.

We understand that there are confidentiality provisions in at least some upstream JV arrangements that may currently limit information disclosure. There may be similar provisions in gas supply agreements between producers and their customers. This issue was recognised in Australia. Legislation covering the WA and East Coast gas markets requires parties to meet obligations to provide information for the Bulletin Boards regardless of existing confidentiality arrangements. Along similar lines, in the New Zealand electricity Code, clause 13.2A (6) states that "A participant must not enter into a confidentiality agreement with another person for the

<sup>11</sup> Data sourced from Ministry of Business, Innovation and Employment, <https://www.mbie.govt.nz/>

purpose of avoiding making disclosure information...". Gas Industry Co would need to consider carefully whether there was a robust case for excluding specific parties from information disclosure requirements.

*Q26: Do you agree with the proposed coverage for disclosure obligations? What issues do you see with the proposed coverage?*

*Q27: Should there be coverage exclusions (i.e. particular parties or types of party) included in the information disclosure regime? If so, what should they be and why (please provide details and examples to support your argument)?*

*Q28: Should there be a minimum threshold? If so, what should it be and what should it be based on (e.g. nameplate capacity, X GJ/day)? Should the minimum threshold be the same for all types of market participants or should it vary between market segments? Please provide details.*

*Q29: Should the threshold be on a facilities basis or company basis?*

### 3.5 Information Disclosure Rule Options

The earlier discussion reviewed three broad options for information disclosure in the gas wholesale market. In the following discussion, disclosure rules are discussed. These options would fit under a specific information disclosure approach. They are also relevant for a voluntary disclosure regime. In addition, several of the options would fit alongside a principles-based information disclosure regime.

*Q30: Are there any other information disclosure rules that should be considered? Please provide details in your answer including the rationale for your proposed rules.*

#### Planned Outage Disclosure

##### *Description*

The scope of this disclosure would cover planned outage information for all gas processing facilities, transmission pipelines and major users (excluding those that may fall under a possible size threshold). Some limited planned outage information is published currently by Jam Solutions, a New Plymouth project management firm<sup>12</sup>. This information does not cover all parties and is limited to start/finish dates.

The outlook period would need be determined as part of the rule. The length of period is a trade-off between the level of information accuracy (information on events further into the future is generally less accurate) and availability of useful information for the market. The outlook period is 12 months ahead of the reporting date in both of the Australian bulletin boards.

Information fields would include the name of the facility, the outage period, nameplate capacity, capacity reduction and a comment on the nature of the outage.

Parties would update the information as they gained improved information on the event or if circumstances change (recognising that the only time all aspects of an event are known for certain is after it has occurred).

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<sup>12</sup> <https://jamsolutions.co.nz/nz-wide-plans>. Jam Solutions publishes (on a no liability basis) a New Zealand wide schedule of shutdowns and turnarounds for plants around New Zealand in all industries. This schedule includes information for several petroleum operators and major gas users.

### *Advantages*

The disclosure of planned outage information would improve information transparency in the wholesale market: outages, both planned and unplanned, have a major impact on the market (including emsTradePoint, brokered transactions and bilateral arrangements).

This disclosure is consistent with the disclosure regime in the NZ electricity sector: planned outages are covered by a specific requirement in the electricity Code. Planned outage disclosure is also a feature of the Australian bulletin boards.

Disclosure of this information would be a useful input in the Critical Contingency Operator's understanding of gas security of supply issues. It would also assist Transpower with monitoring electricity security of supply and outage planning e.g. carrying out maintenance on the HVDC at times when gas outages are not planned.

### *Disadvantages*

There would be compliance costs associated with this disclosure of planned outage information.

This disclosure may be inconsistent with the confidentiality provisions in upstream parties' JV agreements. It may also be inconsistent with confidentiality provisions in gas supply agreements. This issue may make voluntary disclosure of this information difficult. A regulatory solution may be required to enable this disclosure.

There may be issues relating to the international competitive position for some major users (see earlier coverage discussion).

*Q31: Has this planned outage disclosure option been identified appropriately? Are there alternative versions of the option that are worthy of consideration? Please provide reasons in your response.*

*Q32: Do you agree with the advantages that have been identified for the planned outage disclosure option? Have any other advantages been missed or are there advantages that have been listed that are mischaracterised?*

*Q33: Do you agree with the disadvantages that have been identified for the planned outage disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?*

*Q34: If this planned outage disclosure option is adopted do you think there should be exclusions on information that is disclosed? If so, what types of exclusion should be considered and why? If confidentiality is an issue, please explain why this is the case, including any details and examples.*

## **Unplanned Outage Disclosure**

### *Description*

Similar to planned outage disclosure, the scope of this disclosure would cover unplanned outage information for all gas processing facilities, transmission pipelines and major users (excluding those that may fall under a possible size threshold). This would include unplanned changes in available supply capacity and unexpected changes in demand. A size threshold (possibly a combination of a percentage reduction in capacity and an absolute (i.e. X GJ) reduction in capacity) would be part of the rule so that 'small' or transient outages would not need to be disclosed.

The information provided recently by First Gas on the Maui pipeline outage is an example of unplanned outage information disclosure.

This information is consistent with the Western Australia and East Coast Australia disclosure regimes. It is also broadly consistent with the principles-based regimes since large outage events generally affect wholesale markets and would need to be reported.

Information fields would include the name of the facility, the outage period, nameplate capacity, capacity reduction and a comment on the nature of the outage.

The advantages and disadvantages of this option are similar to those listed under the planned outage disclosure option.

#### *Advantages*

The disclosure of unplanned outage information would improve information transparency in the wholesale market: outages, both planned and unplanned, have a major impact on the market (including emsTradePoint, brokered transactions and bilateral arrangements).

As noted above, this disclosure is consistent with the disclosure regimes in all of the countries and markets that we have reviewed.

Disclosure of this information would be a useful input in the Critical Contingency Operator's understanding of gas security of supply issues. An unplanned outage may not lead to a critical contingency event, but it is important for the CCO to understand the nature of unplanned outages that could potentially lead to an event (either by itself, or in tandem with other changes in the market). It would also assist Transpower with monitoring electricity security of supply.

#### *Disadvantages*

There would be compliance costs associated with this disclosure of unplanned outage information.

This disclosure may be inconsistent with the confidentiality provisions in upstream parties' JV agreements. It may also be inconsistent with confidentiality provisions in gas supply agreements. This issue may make voluntary disclosure of this information difficult. As a result, a regulatory solution may be required to enable this disclosure.

There may be issues relating to the international competitive position for some major users (see earlier coverage discussion).

*Q35: Has this unplanned outage disclosure option been identified appropriately? Are there alternative versions of the option that are worthy of consideration? Please provide reasons in your response.*

*Q36: Do you agree with the advantages that have been identified for the unplanned outage disclosure option? Have any other advantages been missed or are there advantages that have been listed that are mischaracterised?*

*Q37: Do you agree with the disadvantages that have been identified for the unplanned outage disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?*

*Q38: If this unplanned outage disclosure option is adopted do you think there should be exclusions on information that is disclosed? If so, what types of exclusion should be considered and why? If confidentiality is an issue, please explain why this is the case, including any details and examples.*

## Disclosure of Traded Volumes and Prices

### *Description*

As a general point, an understanding of traded quantities and prices by all parties in a market is necessary for the efficient operation of that market.

In the gas wholesale market, there are issues with both the availability of quantity and price information.

At one stage, emsTradepoint published publicly available lagged volume and price data on its market but it stopped in April 2018. This information is now restricted to market participants; there is currently no public disclosure of lagged volume and price data on the emsTradepoint market. In contrast, lagged price information for both the NZX and the electricity wholesale market is publicly available.

Complete traded volume data and price information for the gas wholesale market is not available. MBIE does publish wholesale sales information that it receives from gas retailers in its Quarterly Retail Sale Survey (QRSS). This information includes the quantities bought and sold and the quarterly average wholesale price. However, MBIE only captures sales to retailers. In particular, purchases that major users make directly from producers are not captured in MBIE's QRSS. Given this fact, the wholesale volumes and prices reported do not fully represent the transactions in the gas wholesale market.

The Australian Competition and Consumer Commission (ACCC) noted in its 2016 inquiry<sup>13</sup> into the East Coast Australia gas market that it was 'very difficult' for market participants to determine what a 'fair gas price' meant in the market. This was due to an absence of publicly available information on the prices payable to producers under gas supply agreements (GSAs). The ACCC recommended that a periodic series on prices actually paid to producers under long term GSAs should be published. Following this recommendation, the ACCC is currently publishing a producer gas price series that is based on the weighted average prices<sup>14</sup> paid to producers under long-term GSAs. The ACCC and Gas Market Reform Group (GMRG) have also recommended<sup>15</sup> that parties entering into short-term GSAs outside the facilitated markets should be required to report this information.

This option would involve the public disclosure of wholesale market traded volumes and prices. There are two possible parts to this:

- Lagged public disclosure of traded volumes and prices in emsTradepoint. In the electricity wholesale market, prices are published publicly as the data becomes available. Likewise, in the New Zealand share market, NZX trading volumes and prices are published publicly with a 20-minute lag.
- Publication of weighted average wholesale prices and aggregate traded volumes that cover the entire gas wholesale sector – including gas traded under bilateral contracts and brokered arrangements. Parties would report price (or gas sales revenue, enabling the calculation of a weighted price) and quantity information regularly (e.g. quarterly) to an independent party, who would publish aggregated information. Options for this independent party include Gas Industry Co and Statistics New Zealand.

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<sup>13</sup> ACCC (2016). *Inquiry into the east coast gas market*. April 2016.

<sup>14</sup> These prices cover GSAs that provide for the supply of at least 0.5 PJ per annum for a term of one year or more.

<sup>15</sup> ACCC and GMRG (2019). *Measures to improve the transparency of the gas market: joint recommendations*.



This information disclosure rule could also sit alongside a principles-based disclosure regime; the scope of a principles-based approach would not cover this type of information.

### *Advantages*

An understanding of wholesale gas price and quantity information would enable both suppliers and users of gas to make better informed business decisions, promoting efficiency in the gas wholesale market.

This information may also support decision-making in the wider energy sector. For instance, electricity sector participants are likely to be interested in gas wholesale market information.

### *Disadvantages*

Gas contract information is commercially sensitive, particularly for gas supplied under bilateral arrangements, but also gas supplied through other (e.g. brokered) arrangements. This issue could at least be partly addressed if the information was aggregated – so, published information was limited to weighted average price and aggregated quantity information.

There would be compliance costs to parties in regularly providing contract price and volume information. There would also be administration costs associated with this option, including costs associated with collecting, manipulating and publishing information related to gas contracts.

emsTradepoint would lose a revenue stream. There may be some parties who would have been or may become a participant in the emsTradepoint gas market who may consider publicly available information to be sufficient for their needs.

*Q39: Should lagged emsTradepoint traded volumes and prices be disclosed under an information disclosure regime? Please provide reasons in your response.*

*Q40: Do you agree with the advantages that have been identified for the emsTradepoint disclosure option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?*

*Q41: Do you agree with the disadvantages that have been identified for the emsTradepoint disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?*

*Q42: Should there be publication of weighted average wholesale prices & aggregate traded volumes that cover the entire gas wholesale sector (with data sources including price and volume information covered under bilateral agreements and other arrangements)?*

*Q43: Do you agree with the advantages that have been identified for this weighted average price & volumes option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?*

*Q44: Do you agree with the disadvantages that have been identified for this weighted average price & volumes disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?*

*Q45: Are there confidentiality issues that would limit this option? Please provide details on any confidentiality concerns.*

## Twelve Month Outlook for Gas Production and Consumption

### *Description*

Currently there is limited understanding of gas availability over the coming year. MBIE publishes gas production and consumption information for previous years, but this is historical information and is released late in the year.

This option would involve producers providing forecast gas production information for the coming year or perhaps quarterly information over the year. Information could be aggregated to address confidentiality issues. A possible extension to this option would involve similar disclosure by major users.

This information is important for monitoring electricity security of supply. In the electricity sector, there is no obligation on thermal generators to give the electricity system operator information about the state of their thermal fuel (coal and gas) supplies. In the absence of this information, the system operator must make assumptions about the availability of thermal fuels, which means that there are uncertainties around electricity security of supply, particularly to cover issues associated with low hydro sequence periods. This lack of thermal fuel information also potentially causes information asymmetry between owners of hydro and thermal generation: hydro 'fuel' information is well known and accessible whereas thermal fuel information is not routinely disclosed. This information may affect parties' activities in the wholesale electricity market.

In the gas sector, a lack of understanding about expected gas supply availability over the next year may affect the efficient operation of the emsTradepoint market.

This information disclosure rule could also sit alongside a principles-based disclosure regime; the scope of a principles-based approach would not cover this type of information.

### *Advantages*

Disclosure of producers' (and possibly major users') 12-month outlook for gas production would improve electricity security of supply and may improve the operation of the emsTradepoint market (as detailed above).

### *Disadvantages*

This forecast production information is commercially sensitive. This issue could at least be partly addressed if the information was aggregated. The forecast data would be supplied to an independent authority who would aggregate and publish the information. One option would be for Gas Industry Co to perform this role, publishing the aggregate information on its website.

There would be costs to parties in regularly providing forecast information. In a similar vein, there would also be additional administration costs associated with collecting, manipulating and publishing information.

*Q46: Should a twelve-month outlook for gas production information ('gas production information') be disclosed under an information disclosure regime? Please provide reasons in your response.*

*Q47: Do you agree with the advantages that have been identified for this 'gas production information' disclosure option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?*



- Q48: Do you agree with the disadvantages that have been identified for this 'gas production information' disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?*
- Q49: Are there confidentiality issues that would limit this 'gas production information' disclosure option? Please provide details and any examples.*
- Q50: Should a twelve-month outlook for major users' gas consumption information ('gas consumption information') be disclosed under an information disclosure regime? Please provide reasons in your response.*
- Q51: Do you agree with the advantages that have been identified for this 'gas consumption information' disclosure option? Have any other advantages been missed or are there advantages that have been listed that are mischaracterised?*
- Q52: Do you agree with the disadvantages that have been identified for this 'gas consumption information' disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?*
- Q53: Are there confidentiality issues that would limit this 'gas consumption information' disclosure option? Please provide details and any examples.*

## **Disclosure of Petroleum Field Information**

### *Description*

An important input into parties' understanding of the value of gas is information on gas reserves, production, forecasts and deliverability.

Producers provide this information to MBIE annually in their disclosure under the Crown Minerals Act (1991). MBIE releases the following information as part of its Energy in New Zealand annual publication:

- 2P and 2C figures for oil, condensate, gas and LPG reserves by field several months after the reporting date (reserves are reported as at 1 January);
- Gas system deliverability by field for the prior year;
- Gas production profiles by field;
- Activity statistics for various types of permits;
- Quarterly production, stocks, and consumption data.

We understand that MBIE is currently reviewing the data it publishes with a view to possibly increasing the amount of data it makes available. There may also be scope for improving the timeliness of publication so that the publication date sits closer to the reporting date.

Overall, the disclosure of petroleum field information is managed by MBIE under the Crown Minerals Act (1991). MBIE manages the publication of select information. It does not appear sensible to replicate the collection and publication of this data under a separate information disclosure regime.

## **3.6 Publication Channels**

There are various channels for the publication of disclosed information that could be used, with some channels more suited to particular types of information.

There are several possible options for the publication of outage information (which may be disclosed either through voluntary disclosure, principles or specific rules-based regimes), including:

1. A bespoke website, that could be set up and managed by Gas Industry Co;
2. Separate webpages on the Gas Industry website;
3. An extended version of POCP, which is the electricity sector's information disclosure platform. POCP could become a New Zealand energy sector information disclosure platform. Transpower and the Electricity Authority have signalled support for this option.
4. Possibly First Gas's TACOS environment.

An important attribute of any channel is that it should be easy for the broader public, as well as energy sector participants, to access data. Given the linkages between the electricity and gas sectors, a pan-energy sector channel may be more appropriate. This logic would suggest that the POCP option may be more suitable although there may be other factors that make other options more attractive.

Publication of emsTradepoint lagged volumes and price could be done through the public parts of the emsTradepoint website. emsTradepoint has previously provided this data on its site.

Weighted average wholesale price and aggregate traded volume information could be published by the party that creates the aggregate measures. As noted earlier, options include Gas Industry Co and Statistics New Zealand.

A twelve-month outlook for gas production and consumption could be published by Gas Industry Co.

*Q54: Have any publication channels been left out of the identified channel list? Are there channels in the list that should be excluded? Please provide details in your response.*

*Q55: What do you consider to be the pros and cons of the various options that have been identified and other options that should be considered?*

## 4. Benefits Analysis

### 4.1 Introduction

The focus of this report is on the identification of a proposed problem statement relating to information disclosure in the gas industry and possible options for addressing this problem. No specific option has been identified at this stage. Accordingly, it is not possible to carry out a formal cost benefit analysis.

Nevertheless, we have carried out a preliminary and high-level analysis of the benefits that may be associated from implementing an information disclosure regime. The overall level of estimated benefit may be an indication of whether an information disclosure regime is likely to be net positive from a cost/benefit perspective.

### 4.2 Approach

Quantifying costs and benefits associated with information provision is a difficult exercise. For example, the Electricity Authority noted in its Wholesale Market Information Disclosure Obligations: Consultation Paper<sup>16</sup> that "...a quantitative analysis of the costs and benefits of the proposal [amendments to the Code to deliver a more effective information disclosure regime] is not practical in this case." In particular, it considered that the error associated with estimating the quantities associated with the benefits would be significant. The EA instead focussed on a qualitative assessment of these benefits. Similarly, the AEMC<sup>17</sup> applied a qualitative cost/benefit assessment framework in its review of improvements to the information disclosure regime in the East Coast Australia gas markets.

Recognising the caveats associated with a quantitative approach, we have conducted a broad analysis of the possible benefits of increased information availability and transparency. Our analysis uses the framework adopted in Sapere's cost/benefit analysis of the Gas Bulletin Board and Gas Statement of Opportunities in Western Australia<sup>18</sup>. This analysis provides an indication of whether a fuller cost/benefit analysis would identify a positive result.

It should be emphasised that the industry-wide benefits of an information disclosure regime are the additional benefits that accrue to the industry as a result of the regime. In particular, transfers between parties are not counted as a benefit.

What is counted in the analysis, though, is the reduction in the overall efficiency losses that are associated with limited information transparency and information asymmetry. For example, these losses include the possibility that gas may not be allocated to those consumers who value it the most. More generally, the main benefit of information disclosure arrangements is the improvement in information and the associated incentives that affect a range of decisions in the gas sector – from a gas user's purchase decisions to investment decisions in the upstream part of the sector. This improved information and incentives will likely lead to better processes,

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<sup>16</sup> Electricity Authority (2012). *Wholesale Market Information Disclosure Obligations: Consultation Paper*

<sup>17</sup> AEMC (2016). *East Coast Wholesale Gas Market and Pipeline Frameworks Review, Stage 2 final report: information provision*.

<sup>18</sup> Sapere Research Group (2012). *Cost-benefit analysis of Gas Bulletin Board and Gas Statement of Opportunities*. Report to the Independent Market Operator.

consumption and investment decisions, resulting in an improvement in allocative and dynamic efficiency.

Following the approach used in Sapere (2012), we estimate the benefit of an information disclosure regime by estimating a value for gas wholesale market revenue and applying an efficiency factor.

This market revenue estimate is calculated by combining an estimate of annual gas consumption together with a wholesale price for gas consumed:

- Annual gas consumption of 180 PJ (average annual gas supply 2010 – 2017, from MBIE's annual gas statistics)
- Gas price of \$6/GJ (average wholesale gas price over the last few years, from Concept (2016)<sup>19</sup>)

Combining these assumptions, the estimated annual wholesale revenue is \$1.1 billion.

The efficiency factor is clearly a key assumption in the analysis. The factor we have used is based on a survey of cost/benefit studies that focus on the benefits arising from information disclosure in various gas markets. These studies include Oxera (2005)<sup>20</sup> and MMA (2006)<sup>21</sup>. These studies estimate the efficiency improvement associated with improved information availability to be in the range of 0.04 – 0.5 percent of market revenue.

Following Sapere (2012), the benefits associated with the introduction of an information disclosure regime are phased in over five years (i.e. 60 percent of the potential efficiency improvement in the first year, increasingly in a straight line to 100 percent in the fifth year).

The estimated benefits of information disclosure over time are shown in Table 8 for three efficiency factor scenarios:

- high (0.5%), consistent with MMA (2006);
- medium (0.15%), consistent with the high estimate in Oxera (2005); and
- low (0.04%), consistent with the low estimate in Oxera (2005).

**Table 8 Annual Benefits (\$000)**

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>High</b>	3,240	3,780	4,320	4,860	5,400
<b>Medium</b>	972	1,134	1,296	1,458	1,620
<b>Low</b>	259	302	346	389	432

The net present values (NPVs) of these benefits for the three scenarios are summarised in Table 9 below. These NPVs are calculated over a 10-year period using a real discount rate of 8 percent.

<sup>19</sup> Concept Consulting (2016). *Long Term Gas Supply and Demand Scenarios - 2016 Update*.

<sup>20</sup> Oxera (2005). *What are the Costs and Benefits of Near Real-time Gas Information?* Report prepared for the UK Offshore Operators Association.

<sup>21</sup> McLennan Magasanik Associates (2006). *Gas Market Options Cost Benefit Analysis*. Report to Gas Market Leaders Group and MCE Standing Committee of Officials.

**Table 9 Net Present Value of Benefits (\$000)**

Scenario	NPV
High	31,591
Medium	9,477
Low	2,527

These NPV figures for the three scenarios indicate that there are likely to be significant gross benefits (i.e. without including costs) associated with the introduction of an effective information disclosure regime. Implementation and ongoing costs are unlikely to be of the magnitudes identified (particularly for the high and medium scenarios) suggesting the value of information disclosure from an overall cost/benefit perspective should be positive.

*Q56: Have you got any comments on the benefits analysis?*

*Q57: Could you please provide Gas Industry Co with estimates of your expected costs associated with the implementation and ongoing management of the various information disclosure options? This cost information is important for completing a full cost/benefit analysis.*

# Glossary

Term	Definition
ACER	Agency for the Cooperation of Energy Regulators
ACCC	Australian Competition & Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
ASX	Australian Stock Exchange
CCO	Critical Contingency Operator
CEREMP	Centralised European Register of Energy Market Participants
CESR	Committee of European Securities Regulators
COAG	Council of Australian Governments
the Code	Electricity Industry Participation Code (2010)
E&P	Exploration & Production
EA	Electricity Authority
ERGEG	European Regulators Group for Electricity and Gas
EU	European Union
IMO	[Western Australia] Independent Market Operator
Gas Act	Gas Act 1992
GBB	[Australian East Coast] Gas Bulletin Board
GIC	Gas Industry Company
GJ	Gigajoule
GMRG	Gas Market Reform Group
GTAC	Gas Transmission Access Code
GPS	Government Policy Statement on Gas Governance (2008)
GSA	Gas supply agreement
LNG	Liquefied Natural Gas
MBIE	Ministry of Business, Innovation & Employment
MPOC	Maui Pipeline Operating Code
NRA	National Regulatory Authority
NZX	New Zealand Stock Exchange
OATIS	Open Access Transmission Information System

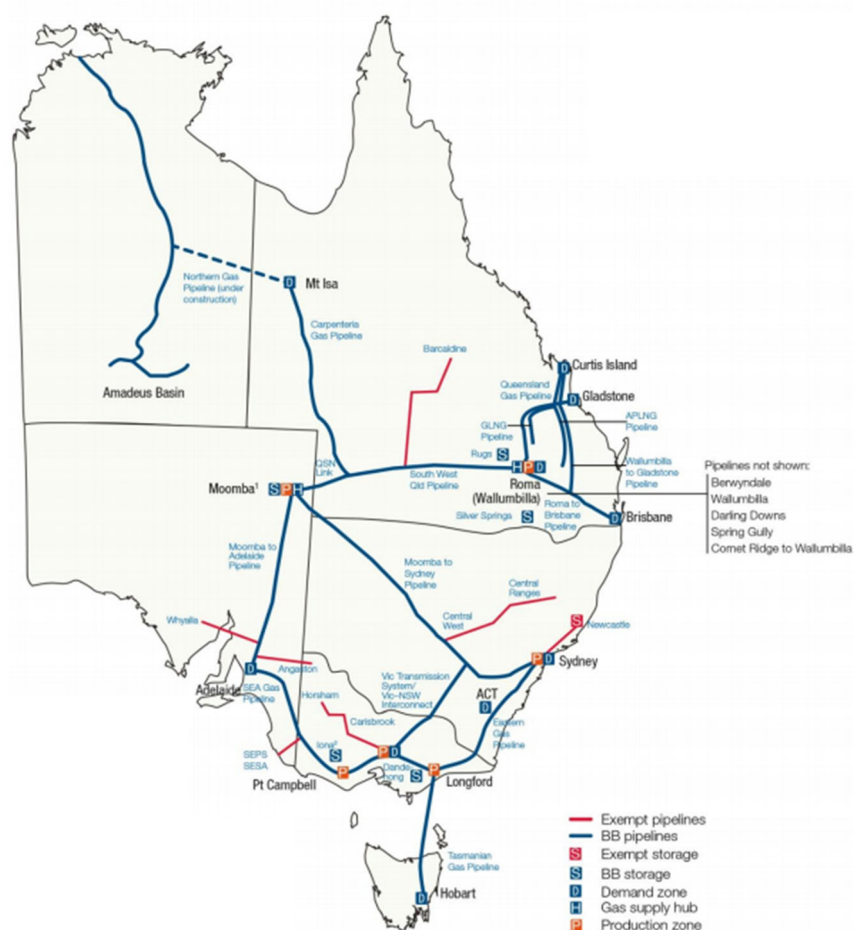
Term	Definition
Ofgem	Office of gas and electricity markets
OTC	Over-the-counter
PJ	Petajoule
REMIT	Regulation on Wholesale Energy Market Integrity and Transparency
TJ	Terajoule
UTS	Undesirable Trading Situation
VTC	Vector Transmission Code
WAGBB	Western Australia Gas Bulletin Board

# Appendix A Information Disclosure in Other Countries and Markets

## A.1 Australia – East Coast

### East Coast Gas Markets

The Australian East Coast gas markets include gas markets in Queensland, New South Wales, ACT, Victoria, South Australia and the Northern Territories (NT was recently connected with the completion of the Northern Gas Pipeline in late 2018) interconnected by the gas transmission system. The markets are illustrated below<sup>22</sup>.



### The Need for Information

The Australian Energy Market Commission (AEMC) remarks that the East Coast gas markets have historically operated in an opaque manner<sup>23</sup>. Gas, transportation, storage and risk

<sup>22</sup> Department of Industry and the Bureau of Resources and Energy Economics (2013). *Eastern Australian Domestic Gas Market Study*.

<sup>23</sup> AEMC (2016) *East Coast Wholesale Gas Market and Pipeline Frameworks Review, Stage 2 final report: information provision*



management services sold under bilateral contracts were typically treated as confidential by the parties. Information on some key demand and supply fundamentals in the market also tended to be opaque.

The Australian Energy Markets Operator<sup>24</sup> (AEMO) notes<sup>25</sup> that information symmetry and transparency are important for the successful performance of the East Coast gas markets. It comments that publication of market information is particularly useful for end users, potential new market entrants, small market participants, market observers, policy makers and participants in related markets. These are parties whose businesses or decisions are affected by gas market outcomes but cannot practically or efficiently rely on contractual arrangements with multiple facility operators to obtain this information.

AEMO further comments that information asymmetry can lead to the ability of some parties to make a commercial gain from the market at the expense of others. Parties who have access to information may have a commercial advantage, enabling them to make better decisions. Conversely, those that do not have access to information can be disadvantaged, limiting their ability to compete on a level playing field.

Information asymmetry can result in greater risk for those parties who do not have access to information. In a relatively opaque environment dominated by bilateral arrangements, the only way a party can be informed is to take out contracts with all relevant facilities in the market. This creates a barrier to entry for smaller players and increases the cost of doing business. AEMO notes that information asymmetry can also mean that gas will not be allocated to those who value it the most, as not all parties have information to put the necessary contractual arrangements in place. This potentially leads to inefficient market outcomes.

### **Gas Bulletin Board**

An information disclosure regime for the Australian East Coast gas markets was established in 2008 with the creation of the Gas Bulletin Board (GBB). The GBB is a gas market and system information website covering all major gas production fields, major demand centres and natural gas transmission pipeline systems of South Australia, Victoria, Tasmania, NSW, ACT and Queensland, <https://www.aemo.com.au/gas/gas-bulletin-board>.

The GBB and the Gas Statement of Opportunities<sup>26</sup> (GSOO) were introduced to improve short- and long-term gas market information. Both the GBB and the GSOO are administered by AEMO. The purpose of the GBB is to provide a more level playing field by requiring certain information to be provided to a central repository for use by all market participants and the public. This should lead to a reduction in information asymmetry, which should improve the operation of the market, lead to better business decisions, improve parties' risk mitigation strategies and provide supply and demand signals to the market.

AEMO comments that the implementation of the GBB created a more level playing field for market participants. It improved the ability of participants to effectively manage their own positions in the market by increasing the transparency of forward looking and operational gas system and market data.

One of the major concerns raised by some stakeholders was that publishing certain information about LNG facilities may affect their competitive position in the international LNG market. In particular, the LNG producers were concerned that publishing information

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<sup>24</sup> The Australian Energy Market Operator (AEMO) is responsible for operating Australia's largest gas and electricity markets and power systems.

<sup>25</sup> AEMO (2012) *Gas Market Information – Gas Bulletin Board Final Report*. Document Ref: 45-27213

<sup>26</sup> The GSOO reports on the long-term adequacy of the East Coast gas market to supply maximum demand and annual consumption.

about planned and unplanned outages could reveal their position and affect any negotiations to obtain LNG from other sources to meet their supply contracts. They argued that requirements for them to report gas consumption and capacity outages would be unique internationally. The AEMC noted that there may be few information disclosure requirements in many LNG exporting countries; however, requirements do exist where LNG facilities are integrated into domestic markets in developed countries (including the UK, United States and Europe). The AEMC determined that the potential benefits to the domestic market from providing this information outweigh the potential detriments to LNG producers.

Following the establishment of the GBB, some stakeholders still considered there to be significant informational gaps and asymmetries in the gas market. In addition, the structure of the market has changed significantly since the introduction of the bulletin board: infrastructure has evolved into an interconnected network and the Queensland-based liquefied natural gas (LNG) export industry has driven a substantial increase in demand.

In response, in 2016 the AEMC reviewed the adequacy of information disclosure in the GBB and made a number of recommendations to improve the operation and relevance of the published information for participants. Further changes to the GBB were made in 2017 to further enhance the breadth and accuracy of information.

The current range of information that is disclosed in the GBB is summarised in Table 10 (some of this information, such as 2P reserves, will be added to the GBB in 2019).

**Table 10 East Coast Bulletin Board Information**

	Pipeline	Production	Storage	Large users	LNG	Reserves
<b>General information</b>						
Nameplate rating (>10 TJ/day)	✓	✓	✓	✓	✓	
Planned asset retirements & expansions	✓	✓	✓		✓	
Detailed facility data	✓	✓	✓	✓	✓	
Details of contracted shippers	✓					
<b>Previous day data</b>						
Daily disaggregated receipt/delivery point	✓					
Daily production/consumption		✓		✓	✓	
Daily storage volume			✓			
Daily injections & withdrawals			✓			
Daily compression volume						
<b>Forecasts &amp; Nominations</b>						
Nominations (D)	✓	✓	✓			
Intra-day renominations	✓	✓	✓			
Forecast nominations (D+1 - D+6)	✓	✓	✓			
<b>Capacity Outlooks</b>						
Short term (7 day) capacity outlook (daily)	✓	✓	✓		✓	
Medium term capacity outlook	✓	✓	✓		✓	
12 month outlook for uncontracted capacity	✓		✓			
Material intra-day changes to capacity	✓	✓	✓		✓	
Linepack Capacity Adequacy flag (D - D+2)	✓					
<b>Other</b>						
Secondary platform capacity data	✓	✓				
2P reserves (annual)						✓

The reporting threshold for transmission pipelines, production facilities, storage facilities and large users has recently been lowered from 20 TJ/day to 10 TJ/day.

Obligations requiring facility operators to register for the GBB are subject to civil penalty. Information reporting obligations are also subject to civil penalty through a GBB 'information standard'. This information standard applies to submitted information, updates to that information and the maintenance of equipment from which that information is sourced. The Australian Energy Regulator (AER) monitors and enforces the information disclosure requirements that form the GBB. The AER audits participants from time to time.

#### *Medium term capacity and adequacy information*

The GBB includes information on medium term capacity and adequacy. This information covers planned and scheduled facility outages, or changes in available capacity, affecting transmission pipelines, processing facilities, storage facilities and LNG facilities. Information for a 12-month outlook period is updated on a six-monthly basis. Information updates are triggered if the change in information is greater than 10 percent of the nameplate rating or 30TJ.

During AEMO's consultation process, many of the market participants noted the importance of this information to ensure a level playing field, to avoid concurrent planned maintenance outages

of facilities and to enable participants to manage their risk. AEMO noted that, given the relationship between the gas and electricity markets (with gas-fired generation playing an important role in Australia's electricity supply), information spanning a medium-term horizon is important for ensuring electricity security of supply.

Several parties commented that a case had not been made that access to supply capability information was needed or would be meaningful to market participants or the market generally.

During consultation, facilities operators commented that maintenance information is inherently uncertain and subject to change. Operators contended there would be risks associated with parties making decisions based on this information. AEMO noted that planning and maintenance activities are complex and outlooks are subject to change. How parties act on the information is a matter for those parties and their use of information would reflect experience with having the information available. AEMO commented that its expectation would be that information on maintenance dates and outage details would increase in granularity as the event date moved closer and posted information would reflect this.

Operators also commented that maintenance information provided to contracted customers under bilateral arrangements is commercially sensitive and not appropriate for release in a public forum. AEMO acknowledged the issue but stated that there are types of information that should be accessible beyond contracted parties because of the impact that information has on energy markets – including both the gas and electricity markets.

#### *Short term information*

The main purpose of the disclosure of short-term information is provide awareness of system adequacy. This gives participants the option to make decisions that can result in more gas being made available to gas markets (if required), or by raising awareness in the electricity market of a potential gas shortage.

AEMO's definition of short-term information includes system capability information for the current gas day and over the following week. It includes short term changes such as unplanned changes in available supply capacity and unexpected changes in demand.

The GBB provides short term information on:

- Capacity information outlook. A seven-day outlook covering all processing and transmission pipelines defined by the rules. The data is required to be updated if the current capacity varies from the currently published data by an amount greater than 10% of the nameplate rating or 30TJ.
- Daily production/consumption related to production facilities and large users (defined as users that have daily consumption greater than 10TJ/day).
- Aggregate pipeline flows. A seven-day outlook of aggregate forecast pipeline flows (with the same update criteria as before).
- Pipeline linepack. A three-day linepack adequacy flag.

Overall, AEMO expects that this information should mean that the market is in a better position to manage an event. It may lead to gas being supplied to those who value it the most, improving the efficiency of the market.

Production facility nominations have been added recently to the GBB. Production facilities must report daily gas nominations and daily forecast (D+1 to D+6) nominations. They must also report intra-day changes to nominations (re-nominations) and intra-day changes to their capacity outlooks. The rationale behind this disclosure is that it should provide added transparency to production outages.

Pipeline operators are required to submit daily disaggregated receipt/delivery point data.

## **A.2 Western Australia Gas Bulletin Board – Australia**

### **Western Australia Gas Market**

The WA gas market has been shaped by two main factors:

- geographic isolation – the WA market is physically separated from Australia’s east coast gas markets; and,
- very large gas resources, which have been harnessed largely for liquefied natural gas (LNG) production.

These factors have resulted in a market that is characterised by<sup>27</sup>:

- Bilateral, confidential, long-term take-or-pay gas sales contracts.
- A small number of large gas suppliers/producers and large gas consumers.
- Residential, commercial, and small industrial consumers representing only a small proportion of the market.
- A limited number of pipelines and interconnections, and little surplus transportation capacity.
- Limited gas storage capacity.
- Small volumes of short-term and spot gas sales.
- Limited data to assess the state of the market, such as the availability of new supply or potential buyers.

From the WA Gas Statement of Opportunities 2017, almost half the gas in WA in 2015/16 was used for electricity generation. Another 29 percent was consumed by the industrial and minerals processing sector, with large industrial and mining users making up most of the remaining gas consumption. Customers supplied through the retail distribution network accounted for around eight percent of total WA domestic gas consumption.

There are four LNG production facilities operating in WA – the North West Shelf, Pluto, Gorgon and Wheatstone. These facilities do not directly compete for gas reserves in the WA domestic gas market. The WA Domestic Gas Policy ensures that WA LNG export projects make gas available to the domestic gas market on a long-term basis.

The Western Australia (WA) transmission pipelines are illustrated below.

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<sup>27</sup> AEMO (2017). Gas Statement of Opportunities for Western Australia



## The Need for Information

Despite the different attributes of the East Coast and WA gas markets, the drivers that led to the establishment of information disclosure regimes in the two regimes are broadly similar.

Market Reform (MR)<sup>28</sup>, the consultants retained by the Independent Market Operator (IMO) to develop the design of the Western Australia Gas Bulletin Board (WAGBB), noted that a primary driver for the implementation of the WAGBB was information transparency:

*Confidentiality provisions in existing contracts are so pervasive that there is almost no transparency in the operation of the gas system today. Much of this confidentiality appears to serve no obvious purpose other than to provide facility operators with a monopoly on information. Greater disclosure of information will not undermine the gas industry.*

MR commented that greater transparency of information would make shippers more informed of the available options and possible risks. This would lead to improved efficiency, competition, security and reliability in the industry.

MR noted that it was important that confidentiality issues were addressed because shared access is important to the efficient operation of energy markets:

*...a small number of entities have significant dominance with respect to access to information and this does impose a cost on industry. The broader energy market is a complex interconnected system and to the extent that information about capabilities, utilisation, and outages of certain components of the system is not shared or is only shared with the contracted users of that component then this disadvantages other energy market participants who may experience direct cost consequences (e.g. higher electricity prices).*

<sup>28</sup> Market Reform (2012). Gas Information Services Design Report: Gas Bulletin Board and GSOO Draft Report.

## Western Australia Gas Bulletin Board

The WAGBB is a public website that publishes forecast and historical data on the domestic production, transmission, storage, and usage of natural gas in Western Australia. The WAGBB was established following the Varanus Island incident in 2008<sup>29</sup>.

The objective of the WAGBB<sup>30</sup> is to improve information transparency and symmetry across the gas supply chain, for both existing and potential market participants. The WAGBB is also expected to assist the government and industry during critical contingency events.

A reference point for the design of the WAGBB was the East Coast GBB (see above).

WAGBB participants include pipeline operators, gas storage facility operators, production facility operators, shippers and large users. The inclusion of large users was discussed in the design of the WAGBB. In the consultation process, industry suggested that if some facility operators are expected to disclose information, fairness and equity considerations suggest that large users should also supply information.

There is a materiality threshold applied to facilities that must disclose information on the WAGBB. Production, transmission, storage and user facilities that have a name plate capacity less than 10 TJ/day do not have to disclose information on the bulletin board.

Table 11 below summarises the key information that is provided to the WAGBB by the various participants.

**Table 11 Western Australia Gas Bulletin Board**

	Pipeline Operators		Gas Storage Facility Operators	Production Facility Operators	Large Users
	Pipeline segments	Gate Stations	Gas Storage Facilities	Production Facilities	Large user Facilities
Name plate capacity	✓	✓	✓	✓	✓
12-month maintenance report	✓	✓	✓	✓	
7-day capacity outlook	✓	✓	✓	✓	
7-day forecasts of flows at receipt delivery point resolution	✓	*	✓		
3-day linepack adequacy	✓		✓		
Prior days' flows at receipt delivery points and production/large user facilities	✓	*	✓	✓	✓
Gas specification information	✓	*	✓	✓	

\* Information captured in pipeline segment information

Most of the data is submitted daily, though data may be updated during the day as information (such as forecast data) improves. Nameplate capacity information is submitted annually, while maintenance reports are provided on a monthly basis.

<sup>29</sup> The Varanus Island incident was a major disruption to natural gas supply in Western Australia, caused by the rupture of a corroded pipeline and subsequent explosion at a processing plant on Varanus Island, off the state's north west coast on 3 June 2008. The plant, operated by Apache Energy, which normally supplied a third of the state's gas, was shut down for almost two months.

<sup>30</sup> Gas Supply and Emergency Management Committee (2009). Report to Government. <https://www.accc.gov.au/system/files/public-registers/documents/D10%2B3402420.pdf>

### *Medium-term Maintenance Report*

Users of an affected facility receive this medium-term information under their contracts. However, other facility operators, the wider market and government do not. The motivation for disclosure of medium-term maintenance information is to remove this information asymmetry, enabling all parties to be in a better position to make appropriate plans around known maintenance events.

WAGBB participants are required to submit a maintenance report for each transmission pipeline, gas storage facility or production facility. The report includes planned service notifications and data on capacity expansions planned within the duration of the report. Reports are provided monthly and cover a period of one year. A maintenance report must be resubmitted within one business day of the facility operator becoming aware of a change in the capacity implied by the planned service outage notification.

A notification for a facility includes:

- Identity of the facility;
- Expected start and end dates of the capacity change;
- Expected operating capacity over that period;
- A standard category describing the type of maintenance or expansion; and
- An optional text field for information.

### *Near-term Capacity Outlook*

The rationale for disclosure of near-term capacity projections of facilities is that this information supports participants' operational decisions making by allowing them to respond to potential disruptions and maintenance. While shippers are generally advised of capacity reductions in accordance with their contracts, this information is not available to the wider market.

The WAGBB aggregates information to reflect production zones, demand zones and pipeline segments. An outcome of this aggregated approach is that confidential information can be protected.

The legislative framework for the WAGBB is based on the following key elements:

- Participants are required to provide information to the Independent Market Operator (IMO) for the purposes of the WAGBB –
  - participants cannot rely on confidentiality provisions in contracts as an excuse for not providing information; and
  - participants will not be liable for providing required information, even if that information is considered confidential under contract;
- the IMO will be permitted to disclose confidential information in specified circumstances – in particular, where publication of the information is required by the rules; and
- a penalty regime will apply to gas market participants for failure to comply with their obligations.

## **A.3 European Union REMIT**

REMIT (regulation on wholesale energy market integrity and transparency) came into force on 28 December 2011. REMIT is an EU regulation on energy market integrity and transparency (No 1227/2011). The REMIT regime is applied by National Regulatory Authorities (NRA) in the individual EU member states. The Agency for the Cooperation of Energy Regulators (ACER) is



the EU body responsible for monitoring wholesale energy markets at an EU level to detect market abuse.

The definition of wholesale markets is much wider under REMIT than seen in the Australian markets and includes both commodity markets and derivative markets. This includes, amongst other things, regulated markets, multilateral trading facilities and over-the-counter (OTC) transactions and bilateral contracts (traded directly or through brokers).

REMIT is a consistent EU-wide framework that:

- defines and prohibits market abuse in wholesale energy markets, in the form of market manipulation and insider trading;
- establishes a framework for monitoring wholesale energy markets to detect and deter market manipulation and insider trading; and
- provides for the enforcement of these prohibitions at a national level.

### **The Need for Information**

Prior to REMIT the Committee of European Securities Regulators (CESR) and the European Regulators Group for Electricity and Gas (ERGEG) reported to the European Commission that the current legislation was not sufficiently dealing with market integrity issues. There were specific concerns relating to markets being manipulated based on market power but the extent to which these practices could be investigated were limited due to a lack of information available to regulators. Further to this, the legislation at the time did not explicitly prohibit market abuse in the energy sector which made it difficult for any form of retribution. The report highlighted that there was a clear need for an energy-sector specific legislative framework that prohibited this type of behaviour and required market participants to provide the appropriate information for the market to be monitored.

It was also becoming increasingly apparent that there was a need for a consistent approach to information disclosure across the EU. Successive European energy liberalisation schemes resulted in greater volumes of energy being traded and with energy price-setting occurring as a result of supply and demand across national borders (and with transactions often concluding outside the country where the initial trade took place) there was concern of market abuse transcending national borders. This was becoming a major concern for individual member states of the EU as it was increasingly becoming more difficult to detect and deter any market abuse when the market activities weren't occurring exclusively within their own jurisdiction. This was also causing confusion for regulators and market participants alike when market activities crossed borders and were subject to different rules under the different jurisdictions.

### **Public Disclosure**

Under REMIT, market participants must publicly disclose any inside information that they possess. Table 12 below details who is required to disclose and what information is required. The definition of 'inside information' is not prescriptive but states it does include information relevant to facilities for production, storage, consumption or transmission or related to the capacity and use of LNG facilities, including planned or unplanned unavailability of these facilities. ACER also does not set thresholds on the information that should be disclosed rather, it notes that market participants need to judge whether information they hold constitutes 'inside information' under REMIT.

**Table 12 REMIT Definitions**

REMIT definitions	
Market participants include:	<ul style="list-style-type: none"><li>• Producers of electricity or natural gas</li><li>• Parties responsible for balancing</li></ul>

	<ul style="list-style-type: none"> <li>• Wholesale and large final customers (defined as having greater than 600 GWh or 2.16 PG/year)</li> <li>• Transmission system operators</li> <li>• Storage system operators</li> <li>• LNG system operators</li> </ul>
"Inside information" has these four elements:	<ul style="list-style-type: none"> <li>• Is of a precise nature</li> <li>• It has not been made public;</li> <li>• It relates, directly or indirectly, to one or more wholesale energy products; and,</li> <li>• If it were made public, it would be likely to significantly affect the prices of those wholesale energy products</li> </ul>

REMIT states that "market participants shall publicly disclose in an effective and timely manner inside information...". ACER has provided some guidance on what it considers 'effective' and 'timely'. ACER provides general guidance on what 'effective' disclosure means as well as a minimum set of information it expects to be provided in a disclosure statement. Table 13 below sets out these requirements. The intent of ACER's 'effective' guidance was to ensure publication would be as short and specific as reasonably possible. ACER considers 'timely' to mean as soon as possible, but at the latest within one hour if not otherwise specified in applicable rules and regulations. It further considers that market participants should have a compliance plan towards real or near real time disclosure of inside information.

**Table 13 Disclosure Requirements**

Disclosure guidance	
Effective disclosure	<ul style="list-style-type: none"> <li>• Inside information shall be disclosed to public on a non-discriminatory basis and free of charge;</li> <li>• Inside information shall be made available via an RSS feed specific for the disclosure of inside information, allowing easy and fast access by the public;</li> <li>• Inside information shall be kept available for the public for at least a period of 2 years;</li> <li>• The information should be published in the official language (s) of the relevant Member State and in English or in English only;</li> <li>• Minimal unavailability consistent with market expectations shall be ensured; and</li> <li>• Effective administrative arrangements designed to prevent conflicts of interest with market participants shall be ensured (applicable only for platforms).</li> </ul>
Information required	<ul style="list-style-type: none"> <li>• Caption "Publication according to Article 4(1) of REMIT – Urgent Market Message"</li> <li>• A subject heading that summarises the main content of the publication</li> <li>• The time and date of publication</li> <li>• The time and date of the relevant incident</li> <li>• If applicable, the name and location of the asset concerned</li> <li>• If applicable, the market area concerned</li> </ul>

## Disclosure guidance

- If applicable, the affected capacity of the asset concerned
- If applicable, the available capacity of the asset concerned
- If applicable, the fuel concerned
- If applicable, the estimated time at which the assets concerned will be partly/ or wholly available again.
- If applicable, the reasons for the unavailability of the asset concerned. If the reason(s) for the unavailability is/are known, regular updates should be provided until the reason(s) is/are confirmed
- If applicable, a history of prior publications regarding the same event, e.g. if a prognosis is updated or an unplanned outage becomes a planned outage
- Any other information necessary for the reader to understand the relevant information

ACER has expressed a preference for 'inside information' to be published via disclosure platforms, where they exist. Alternatively, market participants are able to disclose via their own websites, but they must list where they disclose on the Centralised European Register of Energy Market Participants (CEREMP) portal. The number of disclosure platforms is growing, however, ACER indicated in an open letter in May 2018 that less than 10% of all market participants use a platform, most use their own websites. ACER has also recently said that it doubts that the disclosure of inside information across a multitude of different company websites can be considered effective and they will contemplate making the use of platforms compulsory.

The disclosure requirements under REMIT have been seen by some as being particularly burdensome and time-consuming. To meet the requirements businesses have had to build and operate bespoke IT systems and some energy producers noted that the timeframes to disclosure meant that as soon as there was a fault, they spent time reporting it instead of fixing the problem. There has also been concern that because there are no clear criteria on what should be reported there is a tendency to over-report. Despite these concerns, national regulatory authorities (NRAs) have been able to use their greater access to data to more comprehensively investigate cases of potential market abuse. Office of gas and electricity markets (Ofgem) is the independent NRA for the UK and as at the end of 2017 had opened more than 11 investigations as a result of the new information available under REMIT. Although at the time Ofgem was yet to formally find a breach it was confident its actions, through compliance and guidance, had resulted in a properly functioning wholesale market and had already noticed improvements to practices across the industry.

### A.4 New Zealand Electricity Sector

The Electricity Authority (EA) considers that "access to high quality information helps facilitate an efficient, competitive wholesale market"<sup>31</sup>. Effective information disclosure can help reduce the situation where some parties have access to more and/or better information than others. This asymmetry can lead to inefficient decision-making and poor market outcomes. Better information can also reduce uncertainty in the market. In addition, information disclosure can assist other participants and regulators in detecting if participants are not acting in the long-term interest of consumers.

<sup>31</sup> Electricity Authority (2017). *Wholesale market information: review of disclosure regime*.

The EA recognises that there are potentially costs associated with information disclosure. Parties may incur costs in maintaining databases and complying with regulatory requirements. Potentially, information openness may facilitate overt or tacit collusion in some circumstances. Finally, some information may need to remain private (at least for a period) so that a party can earn a return on costs associated with improving its intellectual property. The EA notes that exclusions allowing a party to withhold information under specific criteria can minimise these costs.

Clauses 13.2 and 13.2A of the Electricity Industry Participation Code (2010) (the 'Code') require electricity wholesale market participants to disclose information relevant to the wholesale market:

- Clause 13.2 aims to ensure participants do not provide misleading, deceptive or incorrect information. It requires participants to act immediately to disclose corrected information if they find that they have provided misleading, deceptive or incorrect information.
- Clause 13.2A places a 'continuous disclosure' obligation on participants. It requires that participants disclose, in a timely manner, any information that they hold that they expect would have a material impact on prices in the wholesale market if it was made publicly available.

The regime is modelled on similar provisions for companies listed and traded on the New Zealand Stock Exchange (NZX).

As noted above, there can be some adverse impacts from information disclosure. Clause 13.2A includes a number of exclusions allowing participants to withhold information to minimise these impacts. One of the key exclusions is that a participant is not required to disclose information if a reasonable person would not expect the disclosure information to be made readily available.

Information disclosure in the New Zealand electricity sector is a principles-based regime rather than a rules-based (or prescriptive) approach. The Code leaves it up to individual parties to determine whether they should disclose particular pieces of information. This is the approach used in the NZX continuous disclosure regime and also the European REMIT regime. The major advantage of a principles-based approach, relative to the rules-based alternative, is that its broad approach can cover a variety of circumstances, some of which may be unforeseen at the time rules are put in place. It is outcomes-based regulation; that is, the threshold for information disclosure is set against the outcome of avoiding a material change in market price caused by information asymmetry.

As noted, this principles-based disclosure regime requires parties to make a qualitative judgement on whether information should be disclosed. The EA provides guidelines for parties to assist them in making this judgement.

The EA monitors parties' compliance with the information disclosure as part of its broader compliance monitoring function. Under 13.2A, the EA can ask a party to satisfy it that information not made publicly available is not 'disclosure information'.

# Appendix B Information Disclosure in Transmission Access Codes

The transmission pipeline information that is published under the VTC and MPOC transmission codes is listed below.

VECTOR TRANSMISSION CODE

## SCHEDULE FIVE: INFORMATION TO BE AVAILABLE VIA OATIS

**Table A: Information generally available on OATIS**

Information Type	Frequency of Posting	Necessary Information
Capacity Reservation Fee ( <i>section 15.6</i> )	Annually, with the provisional fee for Year <sub>(n+1)</sub> by 1 June and the confirmed fee for Year <sub>(n+1)</sub> by 1 September in Year <sub>(n)</sub>	×
Throughput Fee ( <i>section 15.6</i> )	Annually, with the provisional fee for Year <sub>(n+1)</sub> by 1 June and the confirmed fee for Year <sub>(n+1)</sub> by 1 September in Year <sub>(n)</sub>	×
Correction Fee ( <i>section 15.5</i> )	As soon as reasonably practical after being amended in accordance with the Code, but no more than annually	×
Transmission Posted Price Schedule	Annually	×
Defined gas types and certain properties of each gas type for each Business Day at each Delivery Point	By 1200 hours on each Business Day following the Day on which the Shipper takes that gas	×
Notice of delivery of Non-Specification Gas ( <i>section 12</i> )	As soon as reasonably practicable upon detecting or suspecting such occurrence	√
Request for Tenders issued in accordance with <i>section 8.4</i>	Issued by Vector as required	×
Each Tender for Gas (including the details specified in <i>section 8.4(c)(ii)</i> )	As soon as reasonably practicable following the period for submitting tenders	×
The Acceptable Operational Limits ( <i>section 1.1</i> )	At the Commencement Date and updated as soon as reasonably practicable following amendment	×
The Code (Part B of Schedule One)	At the Commencement Date and updated as soon as reasonably practicable following amendment	×

Information Type	Frequency of Posting	Necessary Information
Notice that Line Pack has reached or is outside of the Acceptable Operational Limits ( <i>section 8.4</i> )	As soon as reasonably practicable	×
Each response from MDL to a notification given to MDL of Peaking Limit under <i>section 13.2</i> of the MPOC ( <i>section 8.22</i> )	As soon as reasonably practicable	√
Schedule of Shippers including the Receipt Points and Delivery Points to which each such shipper's transmission services agreement relates (and other information that Vector may post pursuant to <i>section 2.10</i> )	In respect of (a) a transmission services agreement, as soon as reasonably practicable after execution of each such agreement and (b) other information, at Vector's discretion	×
Each Inter-Pipeline Point ( <i>section 1.1</i> )	At the Commencement Date and updated as soon as reasonably practicable following amendment	×
Status of each Shipper's TSA under <i>section 2.12</i>	As required under <i>section 2</i>	×
UFG – Actual for previous month and daily unvalidated	As soon as practicable after calculation at the start of the following month	×
Notice that <i>section 2.6</i> may be invoked ( <i>section 4.2</i> )	As soon as reasonably practicable following the receipt by Vector of the Provisional Reservation Requirements	×
Notice that Peaking Limit may be exceeded ( <i>section 8.23</i> )	As soon as reasonably practicable	√
Operational Flow Order ( <i>section 10.2</i> )	As soon as reasonably practicable after Vector gives notice under <i>section 10.2</i>	√
Force Majeure Notice ( <i>section 22.3</i> )	As soon as reasonably practicable after Vector gives notice under <i>section 22.3</i>	√

Information Type	Frequency of Posting	Necessary Information
Metering Requirements for Receipt Points and Delivery Points ( <i>section 1.1</i> )	At the Commencement Date and updated as soon as reasonably practicable following amendment	x
Description of Pipelines ( <i>section 1.1</i> )	At the Commencement Date and updated as soon as reasonably practicable following amendment	x
Tender Terms ( <i>section 1.1</i> )	At the Commencement Date and updated following amendment	x
Vector Running Imbalance (whether positive or negative) on each Day for each Pipeline	The day Vector issues invoices to Shippers under <i>section 16.2</i>	x
All remaining notices issued to Vector as a Welded Party under the MPOC that Vector determines are relevant to the Shipper	As soon as reasonably practicable following receipt by Vector	x
Scheduled Maintenance ( <i>section 10.1(i)</i> )	At least 30 days before the date on which the Scheduled Maintenance is expected to occur	√
Description of Transmission System ( <i>section 1.1</i> )	Annually, as part of pipeline capacity disclosure	x
List of odorised Pipelines, notice of intention to change the odorisation status of a Pipeline and notice that a change has occurred ( <i>section 13.1</i> )	At the Commencement Date, at least 12 months prior to the change in odorisation status and as soon as reasonably practicable following any change to the odorisation status of a Pipeline	x
Independent Auditors' Report of BPP Account (as required by <i>sections 8.28</i> and <i>8.29</i> )	Annually, as soon as reasonably practicable following receipt by Vector or as otherwise required	x
The Posted Terms and Conditions for Displaced Gas Nominations, and any Consent Form – Displaced Gas Nominations ( <i>sections 1.1</i> and <i>9.2(a)</i> )	At the Commencement Date and updated following amendment	x



Information Type	Frequency of Posting	Necessary Information
Critical Contingency Management Plan (section 1.1)	At the Commencement Date and as soon as reasonably practicable following its amendment or replacement	×
ATS Notice (sections 1.1 and 2.21)	As soon as reasonably practicable where transmission services are curtailed or shutdown under section 10.1(a) or (c).  At the same time as a 30 Day notice is published under section 10.1(i) for Scheduled Maintenance.	√
Vector exercising its rights to interrupt, accept or not accept nominations or revised nominations in full under a Supplementary Agreement	Monthly report	X
All requests by Shippers and responses by Vector under section 5 (section 5.6)	As soon as reasonably practicable	×
Aggregate DDRs, HDRs and station metering	As soon as reasonably practicable	X
Supplementary Agreements	As soon as reasonably practicable	X
Report showing, by Shipper, the Receipt Point, Delivery Point, Reserved Capacity and Authorised Overrun Quantity for each Receipt Point and Delivery Point	Quarterly	×
Reconciled Daily Delivery Reports (DDR) for each Shipper	Monthly in arrears, by 0800 hours on the 6th Business Day of the Month	√

**Table B: Information restricted to each Shipper on OATIS**

Information Type	Frequency of Posting	Necessary Information
Tracking Table showing the Receipt Point, Delivery Point, Reserved Capacity and Authorised Overrun Quantity for each	Prior to the third Friday in September each Year and as soon as reasonably practicable following any	×



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Information Type	Frequency of Posting	Necessary Information
Receipt Point and Delivery Point (as required under <i>section 4</i> )	change to a Receipt Point, Delivery Point, Reserved Capacity and/or Authorised Overrun Quantity in accordance with a TSA	
All requests by Shippers and responses by Vector under <i>section 4</i>	As soon as reasonably practicable	x
Acceptance Notice for each Tender(s) (as required by <i>section 8.4</i> )	As soon as reasonably practicable once accepted by Vector	x
The BPP Schedule and invoices issued by Vector under <i>sections 16.1</i> and <i>16.2</i> where Vector elects to provide them via OATIS under <i>section 16.12(b)</i>	<p>In respect of invoices issued under <i>section 14.1</i> on or before the 10<sup>th</sup> day of each month for the previous Month</p> <p>In respect of invoices issued under <i>section 14.3</i> on or before the 14<sup>th</sup> day of each month for the previous Month</p>	x

PROVIDED THAT:

**Location of Information Available via OATIS**

Information described in the above tables that is to be provided by Vector may be included in documents (e.g. Transmission Posted Price Schedule, Transmission System Information Memorandum or the Pipeline Capacity Disclosure) located outside OATIS but accessible from OATIS via a hyperlink to another website.

#### 4. THE TSP IX

- 4.1 TSP shall use best endeavours to make the following information available to all Parties on the TSP IX on the terms set out in this section 4:

##### Information generally available on the TSP IX

Information	Frequency of Posting
The Maui Pipeline Operating Code	Updated as necessary in accordance with section 29.
Special terms and conditions for a particular Shipper or Welded Party	Updated when amended.
Gas Transfer Code	Updated when amended.
Daily Incentive Price	For each Transmission Day, by 11.00 am the following Day. Updated subject to changes to the Premium Fuel Value Fee.
General notices - non-critical notices - critical notices	Daily as required.
Indicative capacity of Maui Pipeline available for Transmission Services each Day	For each Transmission Day, by 6pm on the Day before.
Rolling Capacity Forecast	Updated monthly, within 6 Business Days of receipt of all Shippers' Rolling Forecasts.
Maintenance Days for Scheduled Maintenance	In accordance with sections 18.11 and 18.12.
Line Pack	Updated Hourly in arrears.
MAOP	Updated as required in accordance with this Operating Code.
Negative Mismatch Price	From time to time, with effect not less than 1 Day after posting.
Incentives Pool Debit Price	As soon as reasonably practicable after all Incentives Pool Debits have been calculated and all Incentives Pool Claims have been submitted for that Day.
Positive Mismatch Price	From time to time with effect not less than 1 Day after posting.
Premium Fuel Value Fee	Promptly once information becomes available from the electricity market.
Target Taranaki Pressure at the time all Approved Nominations are confirmed	For each Transmission Day by 5.00 pm on the previous Day.
Throughput Charges	In accordance with section 19.9.
Time equivalent of Contingency Volume for each Day	Hourly in arrears in accordance with changes to Line Pack.
Contingency Volume that TSP aims to have available for each Day	For each Transmission Day by 5.00 pm on the previous Day.
Contingency Volume that TSP has available from time to time	Hourly in arrears in accordance with changes to Line Pack.
AQ Volumes available to be allocated by TSP in each AQ Zone	As posted by TSP from time to time.
Mismatches available for trading	As posted by Shippers from time to time.

Information	Frequency of Posting	
Operational Imbalances available for trading	As posted by Welded Parties from time to time.	
AQ available for trading	As posted by Shippers from time to time.	
Peaking arrangements agreed in accordance with section 13.2	Promptly after TSP agrees to arrangement.	
Metering data from each Large Station Welded Point	Hourly within 30 minutes after the end of each Hour.	
Operational Imbalance for each Welded Point	<i>Unvalidated:</i> For each Transmission Day by 8.00am the following Day.	<i>Validated:</i> For each Transmission Day by 12.00pm on the next Business Day and in accordance with sections 12.2 to 12.4.
Any written material instructions issued by TSP to either the Commercial Operator, Technical Operator or System Operator in relation to the setting of the following operating parameters (or if TSP calculates any of them itself, the basis on which it does so): <ul style="list-style-type: none"> <li>• Target Taranaki Pressure</li> <li>• Indicative capacity of Maui Pipeline available for Transmission Services each Day</li> <li>• Rolling Capacity Forecast</li> <li>• Negative Mismatch Price</li> <li>• Positive Mismatch Price</li> <li>• Target Taranaki Pressure at the time all Approved Nominations are confirmed</li> <li>• Time equivalent of Contingency Volume for each Day</li> <li>• Contingency Volume that TSP aims to have available for each Day</li> <li>• Contingency Volume that TSP has available from time to time</li> <li>• AQ Volumes available to be allocated by TSP in each AQ Zone</li> <li>• Mismatch Period</li> <li>• Mismatch Payback Limit</li> <li>• Daily Operational Imbalance Limit</li> <li>• Peaking Limit</li> <li>• Peaking Tolerance</li> <li>• Running Operational Imbalance Limit</li> </ul>	At the time such instructions are issued by TSP.	
The Commercial Operator, Technical Operator and System Operator's procedures for implementation of TSP's instructions relating to the setting of operating parameters including: <p>(a) the matters that they will take into account; and</p> <p>(b) a summary of any required calculations</p>	As soon as practicable, but prior to implementation of such procedures by the Commercial Operator, Technical Operator and System Operator.	
Records and accounts and Independent Auditor's report of the Incentives Pool Account	By 31 March in each calendar year	
Intra-Day Nomination Deadlines	Updated from time to time on 30 Days' notice.	

Information	Frequency of Posting
Nominated date for restoration of Contingency Volume pursuant to section 15.10	In accordance with section 15.10.
Any change to an index used in section 28	Updated when amended.
Running Operational Imbalance for each Welded Point	<i>Unvalidated:</i> For each Transmission Day by 8.00am on the following Day. <i>Validated:</i> For each Transmission Day by 12.00pm on the next Business Day and in accordance with sections 12.2 to 12.4.
Provisional Cycle Scheduled Quantity at each Welded Point pursuant to section 9.4	Each Nomination Day by 6.00 pm.
Changed Provisional Cycle Scheduled Quantity at each Welded Point pursuant to section 9.7	For each Transmission Day by 5.00 pm of the Previous Day.
Intra-Day Cycle changes to Scheduled Quantities at each Welded Point	Within 1 Hour after the Intra-Day Nomination Deadline.
Hourly Scheduled Quantity at each Welded Point	For each Transmission Day, by 12.00pm on the following Day.
Quantities of Gas purchased or sold at each Welded Point pursuant to a Cash-Out Transaction	For each Transmission Day, by 12.00pm on the following Day.
Quantities of Gas traded at each Welded Point via TSP IX and in accordance with section 12.15	For each Transmission Day, by 12.00pm on the following Day.

- 4.2 TSP shall use best endeavours to provide each Shipper with secure access to a section of the TSP IX that contains that Shipper's information including:

**Information restricted to each Shipper on the TSP IX**

Information	Frequency of Posting
Provisional Nomination for each Welded Point pursuant to section 8.10	By 6.00 pm on each Nomination Day.
Approved Nomination for each Welded Point for the following Day pursuant to section 8.12	For each Transmission Day, no later than 5.00 pm on the previous Day and as updated from time to time.
Intra-day Approved Nominations for each Welded Point pursuant to section 8.16	For each Transmission Day, no more than 1 Hour after the Intra-Day Nomination Deadline.
Mismatch Period	On the Day that TSP issues a Mismatch Notice.
Mismatch	For each Transmission Day, by 9.00 am the following Day.
Mismatch Payback Limit	Posted as part of Mismatch Notice.
Nominated Quantities that have been confirmed by Welded Parties	One hour before the deadline for TSP to post the applicable Approved Nomination.

- 4.3 TSP shall use best endeavours to provide each Welded Party with secure access to a section of the TSP IX that contains information applicable to that Welded Party, including:

**Information restricted to each Welded Party on the TSP IX**

<b>Information</b>	<b>Frequency of Posting</b>
Provisional Nomination for each Welded Point pursuant to section 8.10	By 6.00 pm on each Nomination Day.
Daily Operational Imbalance Limit for each Welded Point	For each Transmission Day, by 5.00 pm the previous Day and updated for each Intra-Day Cycle.
Peaking Limits	For each Transmission Day, by 5.00 pm of the previous Day.
GJ amounts used in Running Operational Imbalance Limit calculation	At least 7 Days before they take effect.
GJ amounts used in Daily Operational Imbalance Limit calculation	At least 7 Days before they take effect.
Percentage amounts used in Running Operational Imbalance calculation	At least 7 Days before they take effect.
Percentage amounts used in Daily Operational Imbalance calculation	At least 7 Days before they take effect.
Running Operational Imbalance Limit (positive and negative) for each Welded Point	For each Transmission Day, by 5.00pm of the previous Day.
Scheduled Quantities at each Welded Point for the following Day	For each Transmission Day, by 5.00 pm of the previous Day.
Requested Nominated Quantities for each Shipper at each Welded Point pursuant to section 9.3	Immediately after 4.00pm each Nomination Day.
Requested changes to Provisional Nominations and new Nominated Quantities for each Shipper pursuant to section 9.6	For each Transmission Day, immediately after 4.00 pm of the previous Day.
Approved Nominations for each Shipper	For each Transmission Day, by 5.00 pm of the previous Day and as updated from time to time.
Intra-Day Nomination at each Welded Point pursuant to section 8.15 for each Shipper	Immediately after the Intra-Day Nomination Deadline.
TSP's Proposed Scheduled Quantity at each Welded Point pursuant to section 9.2	On each Nomination Day, immediately after 4.00 pm.
TSP's Proposed Scheduled Quantity at each Welded Point pursuant to section 9.5	For each Transmission Day, by 4.00 pm of the previous Day.
Shippers' Rolling Forecast at each Welded Point pursuant to section 8.6	Immediately after the receipt of the Rolling Forecast pursuant to section 8.6
Peaking in excess of Peaking Limits	For each Transmission Day by 12.00 midday of the following Day.
Any quantity of gas used for settling any or all of the Accumulated Excess Operational Imbalance pursuant to a Cash-Out Transaction	For each Transmission Day by 12.00 midday of the following Day.

- 4.4 TSP shall use reasonable endeavours to publish the following information on the BGIX:

**Information generally available on the BGIX**

<b>Information</b>	<b>Frequency of Posting</b>
Real time metering information for all Welded Points located at a Large Station	Continuous.
Flow Line Pack	Within 2 hours after each Intra-Day Nomination Deadline.
Low Line Pack Threshold	Within 2 hours after each Intra-Day Nomination Deadline.
Trading Platforms eligible for use by TSP	When eligible.
Balancing Platforms	When established.
Marginal Buy Price and Marginal Sell Price	As soon as reasonably practicable after each received trade notification or Balancing Action that updates the price.
Balancing Gas Puts and Balancing Gas Calls made	As soon as reasonably practicable following confirmation of the transaction.
Fuel Gas purchases	As soon as reasonably practicable after the Fuel Gas purchase has taken place.
Temporary ROIL Multiplier increases	As soon as reasonably practicable after the temporary increase has been granted.
Cash-Out Transactions	As soon as reasonably practicable after the Cash-Out Transaction has taken place.
Cash-Out Trading Fee Price	For each Transmission Day, by 5.00 pm of the previous Day.
Values of the "adjustment" used for calculating the Marginal Sell Price and the Marginal Buy Price	At least 1 Day before they take effect.
Default rule for the derivation of the Average Market Price	When issued or at least 5 Business Days before an amended rule takes effect.

- 4.5 Each variable contained in the tables above shall be amended by TSP on the frequency indicated in the relevant table. TSP shall amend "validated" variables from time to time if it becomes aware that such data is materially inaccurate, provided that TSP must give each affected Welded Party and Shipper notice of any such changes as soon as practicable and such notice shall include a reason for the change and shall include a replacement invoice or, in the case of overcharges, credit note (whether changes occur before or after the original invoices that relate to the period have been paid).
- 4.6 TSP shall make operational information in respect of Force Majeure or Contingency Events available on the TSP IX as soon as practicable and shall update that information as necessary.
- 4.7 As the TSP IX and BGIX are dependent on an electronic information system which will be accessed via the Internet, and include information supplied by or derived from other parties, TSP makes no warranty about their availability, or about the accuracy or availability of specific information posted on them, at any time.
- 4.8 Each Shipper and Welded Party must maintain the information systems set out in Schedule 5 (as amended from time to time) in order to access the TSP IX.



- 4.9 Subject to section 4.7, TSP will make the TSP IX available to each Shipper and Welded Party who complies with the TSP IX requirements on and subject to the terms and conditions set out in Schedule 5.
- 4.10 If, as the result of a failure of the TSP IX or any aspect of its underlying information systems, either a Provisional Cycle, Changed Provisional Cycle or Intra-Day Cycle is delayed, then TSP shall notify all affected Shippers and Welded Parties, by whatever means are reasonably available to TSP, of the effect of such delay, including any amended deadlines for giving notices or providing confirmations under section 8 or section 9.
- 4.11 The *Conditions of Access and Use* of the TSP IX set out in Schedule 5 may only be amended in accordance with section 29. TSP may change the *Technical Configuration Requirements* set out in Schedule 5 by giving not less than 12 months prior written notice to each Shipper and Welded Party and, accordingly, section 29 shall not apply to any such changes.
- 4.12 If a Welded Party or Shipper is unable to access the TSP IX using the Internet (for any reason outside its reasonable control) to give notice of its Proposed Scheduled Quantity or to confirm or enter Nominated Quantities, then that Welded Party or Shipper may communicate such information to TSP by whatever means are available to it, and TSP shall use its reasonable endeavours to input such data into the TSP IX, before the expiry of the deadlines set out in this Operating Code.

## Appendix C Gas Act and GPS Objectives

This appendix provides relevant information on the Gas Act 1992 (Gas Act) and the Government Policy Statement on Gas Governance 2008 (GPS).

The Gas Act sets out the principal policy objective for Gas Industry Co, when recommending rules or regulations for wholesale market, processing facilities, transmission, and distribution of gas, as:

- (a) the principal objective is to ensure that gas is delivered to existing and new customers in a safe, efficient, and reliable manner; and*
- (b) the other objectives are-*
  - (i) the facilitation and promotion of the ongoing supply of gas to meet New Zealand's energy needs, by providing access to essential infrastructure and competitive market arrangements;*
  - (ii) barriers to competition in the gas industry are minimised;*
  - (iii) incentives for investment in gas processing facilities, transmission, and distribution are maintained or enhanced;*
  - (iv) delivered gas costs and prices are subject to sustained downward pressure;*
  - (v) risks relating to security of supply, including transport arrangements, are properly and efficiently managed by all parties;*
  - (vi) consistency with the Government's gas safety regime is maintained.*

Consistent with the Gas Act, the GPS identifies the Government's objective for the entire gas industry as:

*To ensure that gas is delivered to existing and new customers in a safe, efficient, fair, reliable and environmentally sustainable manner.*

In addition to the objectives in the Gas Act listed above, the Government includes the following objectives in the GPS for Gas Industry Co when recommending rules or regulations:

- a) Energy and other resources used to deliver gas to consumers are used efficiently;*
- b) Competition is facilitated in upstream and downstream gas markets by minimising barriers to access to essential infrastructure to the long-term benefit of end users;*
- c) The full costs of producing and transporting gas are signalled to consumers;*
- d) The quality of gas services where those services include a trade-off between quality and price, as far as possible, reflect customers' preferences; and*
- e) The gas sector contributes to achieving the Government's climate change objectives as set out in the New Zealand Energy Strategy, or any other document the Minister of Energy may specify from time to time, by minimising gas losses and promoting demand-side management and energy efficiency.*



## Appendix D Questions

Options for Information Disclosure in the Wholesale **Gas**

Submission prepared by: <company name and contact>

Question		Comment
Q1:	Should shippers be included in an information regime? If so, what information do you consider should be disclosed?	
Q2:	Is the information currently disclosed by the transmission pipeline operator sufficient? If not, what further information should be released through information disclosure arrangements?	
Q3:	Have the upstream sector and its potential information issues been characterised appropriately? Have we missed aspects of the problem or are there parts of the identified problem that we have not described correctly? Please include details and any examples in your response.	
Q4:	Have the demand-side and its potential information issues been characterised appropriately? Have we missed aspects of the problem or are there parts of the identified problem that we have not described correctly? Please provide details and any examples in your response.	
Q5:	What processes does your organisation have to obtain information ahead of, and during, periods of reduced gas supply?	

Q6:	How is your organisation impacted during periods of reduced gas supply? Please provide details (including costs) and any examples in your response.	
Q7:	What steps does your organisation's risk assessment or business continuity plan expect to be undertaken to limit the impact of periods of reduced gas supply?	
Q8:	Taking into account your risk assessments and business continuity plans, what information do you use and what further information would be useful to your organisation to inform your actions and decisions during periods of reduced gas supply?	
Q9:	Is there any further information regarding outages that you would like to share?	
Q10:	Have the potential information problems in the wholesale gas market been identified appropriately? Have we missed aspects of the problem or are there parts of the identified problem that we have not described correctly? Please provide details and any examples in your response.	
Q11:	Have the potential information transparency and availability issues in the wholesale gas sector been analysed appropriately against the Gas Act and GPS objectives? Are there elements of the analysis that have been missed or parts of problem that have not been analysed properly? Please explain your reasoning.	
Q12:	Has the proposed problem statement been characterised appropriately? Have we missed aspects of the problem or are there parts of the identified problem that we have not described correctly? Please include details and any examples in your response.	
Q13:	Has the voluntary disclosure option been identified appropriately? Are there alternative versions of the option that are worthy of consideration? Please provide reasons in your response.	

Q14:	Do you agree with the advantages that have been identified for the option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?	
Q15:	Do you agree with the disadvantages that have been identified for the option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?	
Q16:	Given the advantages and disadvantages, do you consider that that voluntary disclosure option is a viable option? Please provide the reasoning behind your answer, including details and any examples.	
Q17:	Has the principles-based information disclosure option been identified appropriately? Are there alternative versions of the option that are worthy of consideration? Please provide reasons in your response.	
Q18:	Do you agree with the advantages that have been identified for the option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?	
Q19:	Do you agree with the disadvantages that have been identified for the option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?	
Q20:	If a principles-based information disclosure option is adopted do you think there should be exclusions on information that is disclosed? If so, what types of exclusion should be considered and why? If confidentiality is a concern, please explain why this is the case, including any details and examples.	
Q21:	Has the specific information disclosure option been identified appropriately? Are there alternative versions of the option that are worthy of consideration? Please provide reasons in your response.	

Q22:	Do you agree with the advantages that have been identified for the option? Have any other advantages been missed or are there advantages that have been listed that are mischaracterised?	
Q23:	Do you agree with the disadvantages that have been identified for the option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?	
Q24:	Have the implementation issues associated with the information disclosure options been characterised appropriately? Are there further points that we have missed or are there issues that have been mischaracterised?	
Q25:	Do you think that principles-based information disclosure based on industry-led arrangements is a viable option? Please provide the reasoning behind your answer.	
Q26:	Do you agree with the proposed coverage for disclosure obligations? What issues do you see with the proposed coverage?	
Q27:	Should there be coverage exclusions (i.e. particular parties or types of party) included in the information disclosure regime? If so, what should they be and why (please provide details and examples to support your argument)?	
Q28:	Should there be a minimum threshold? If so, what should it be and what should it be based on (e.g. nameplate capacity, X GJ/day)? Should the minimum threshold be the same for all types of market participants or should it vary between market segments? Please provide details.	
Q29:	Should the threshold be on a facilities basis or company basis?	
Q30:	Are there any other information disclosure rules that should be considered? Please provide details in your answer including the rationale for your proposed rules.	

Q31:	Has this planned outage disclosure option been identified appropriately? Are there alternative versions of the option that are worthy of consideration? Please provide reasons in your response.	
Q32:	Do you agree with the advantages that have been identified for the planned outage disclosure option? Have any other advantages been missed or are there advantages that have been listed that are mischaracterised?	
Q33:	Do you agree with the disadvantages that have been identified for the planned outage disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?	
Q34:	If this planned outage disclosure option is adopted do you think there should be exclusions on information that is disclosed? If so, what types of exclusion should be considered and why? If confidentiality is an issue, please explain why this is the case, including any details and examples.	
Q35:	Has this unplanned outage disclosure option been identified appropriately? Are there alternative versions of the option that are worthy of consideration? Please provide reasons in your response.	
Q36:	Do you agree with the advantages that have been identified for the unplanned outage disclosure option? Have any other advantages been missed or are there advantages that have been listed that are mischaracterised?	
Q37:	Do you agree with the disadvantages that have been identified for the unplanned outage disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?	
Q38:	If this unplanned outage disclosure option is adopted do you think there should be exclusions on information that is disclosed? If so, what types of exclusion should be considered and why? If confidentiality is an issue, please explain why this is the case, including any details and examples.	

Q39:	Should lagged emsTradepoint traded volumes and prices be disclosed under an information disclosure regime? Please provide reasons in your response.	
Q40:	Do you agree with the advantages that have been identified for the emsTradepoint disclosure option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?	
Q41:	Do you agree with the disadvantages that have been identified for the emsTradepoint disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?	
Q42:	Should there be publication of weighted average wholesale prices & aggregate traded volumes that cover the entire gas wholesale sector (with data sources including price and volume information covered under bilateral agreements and other arrangements)?	
Q43:	Do you agree with the advantages that have been identified for this weighted average price & volumes option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?	
Q44:	Do you agree with the disadvantages that have been identified for this weighted average price & volumes disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?	
Q45:	Are there confidentiality issues that would limit this option? Please provide details on any confidentiality concerns.	
Q46:	Should a twelve-month outlook for gas production information ('gas production information') be disclosed under an information disclosure regime? Please provide reasons in your response.	

Q47:	Do you agree with the advantages that have been identified for this 'gas production information' disclosure option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?	
Q48:	Do you agree with the disadvantages that have been identified for this 'gas production information' disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?	
Q49:	Are there confidentiality issues that would limit this 'gas production information' disclosure option? Please provide details and any examples.	
Q50:	Should a twelve-month outlook for major users' gas consumption information ('gas consumption information') be disclosed under an information disclosure regime? Please provide reasons in your response.	
Q51:	Do you agree with the advantages that have been identified for this 'gas consumption information' disclosure option? Have any other advantages been missed or are there advantages that have been listed that mischaracterised?	
Q52:	Do you agree with the disadvantages that have been identified for this 'gas consumption information' disclosure option? Have any other disadvantages been missed or are there disadvantages that have been listed that are mischaracterised?	
Q53:	Are there confidentiality issues that would limit this 'gas consumption information' disclosure option? Please provide details and any examples.	
Q54:	Have any publication channels been left out of the identified channel list? Are there channels in the list that should be excluded? Please provide details in your response.	

Q55:	What do you consider to be the pros and cons of the various options that have been identified and other options that should be considered?	
Q56:	Have you got any comments on the benefits analysis?	
Q57:	Could you please provide Gas Industry Co with estimates of your expected costs associated with the implementation and ongoing management of the various information disclosure options? This cost information is important for completing a full cost/benefit analysis.	



# ABOUT GAS INDUSTRY CO

Gas Industry Co is the gas industry body and co-regulator under the Gas Act. Its role is to:

- develop arrangements, including regulations where appropriate, which improve:
  - the operation of gas markets;
  - access to infrastructure; and
  - consumer outcomes;
- develop these arrangements with the principal objective to ensure that gas is delivered to existing and new customers in a safe, efficient, reliable, fair and environmentally sustainable manner; and
- oversee compliance with, and review such arrangements.

Gas Industry Co is required to have regard to the Government's policy objectives for the gas sector, and to report on the achievement of those objectives and on the state of the New Zealand gas industry.

**SUBMISSIONS CLOSE:**

5:00pm, Wednesday, 17  
April 2019

**SUBMIT TO:**

[www.gasindustry.co.nz](http://www.gasindustry.co.nz)

**ENQUIRIES:**

Paul Cruse

[info@gasindustry.co.nz](mailto:info@gasindustry.co.nz)