



Discussion Paper

## **Review of Gas Emergency Arrangements**

July 2006

# Table of Contents

|          | Page   |
|----------|--|
| <b>1</b> | <b>Executive Summary.....1</b>   |
|          | Background ..... 1   |
|          | Summary of Issues Identified ..... 1   |
|          | Indicative Outcomes .....2   |
| <b>2</b> | <b>Introduction and Purpose .....4</b>                                       |
|          | Introduction..... 4  |
|          | Purpose ..... 4  |
|          | Submission Requirements.....5  |
| <b>3</b> | <b>Regulatory Context.....6</b>  |
|          | GPS..... 6   |
|          | Gas Industry Co Strategic Plan ..... 6                                       |
|          | Gas Act..... 6   |
| <b>4</b> | <b>Is it Appropriate that Gas Emergency Arrangements are Voluntary? ...7</b> |
|          | Mechanisms to Implement Mandatory Arrangements ..... 8                       |
|          | Analysis of Possible Mechanisms.....9  |
| <b>5</b> | <b>Review of Existing Gas Emergency Arrangements..... 16</b>                 |
|          | Framework Design..... 16   |
|          | Issues Identified..... 17  |
|          | Timing with review of Wholesale Gas Market ..... 17                          |
| <b>6</b> | <b>Definitions in the Current Plan ..... 19</b>                              |
|          | "Gas Contingency"..... 19  |
|          | "Transmission System" ..... 22   |
|          | "NGC Transmission" ..... 23  |

|           |   |           |
|-----------|---|-----------|
| <b>7</b>  | <b>Obligations and Liabilities of Industry Participants .....</b> | <b>24</b> |
|           | Obligations on Industry Participants .....                        | 24        |
|           | Liabilities of Industry Participants .....                        | 24        |
| <b>8</b>  | <b>Processes and Systems.....</b>                                 | <b>26</b> |
|           | Current Processes and Systems .....                               | 26        |
|           | Proposed New Processes and Systems.....                           | 28        |
| <b>9</b>  | <b>Emergency Price Regime.....</b>                                | <b>41</b> |
|           | Introduction.....   | 41        |
|           | Generic Contingency Scenarios .....                               | 42        |
|           | Example Emergency or Contingency Situations.....                  | 43        |
|           | Identification of Emergency Pricing Issues .....                  | 48        |
|           | Ex Post Fair Pricing Framework .....                              | 49        |
|           | Determining Body .....  | 52        |
| <b>10</b> | <b>Other matters .....</b>  | <b>53</b> |
|           | Scope .....   | 53        |
| <b>11</b> | <b>Preferred Approach .....</b>                                   | <b>54</b> |
|           | Next Steps .....  | 54        |
|           | <b>Appendix A: Recommended Format for Comments .....</b>          | <b>55</b> |

# 1 Executive Summary

## Background

- 1.1 The New Zealand gas industry is in a phase of transition, from an industry made up of a small number of participants managing larger fields to a developing industry made up of a larger number of participants managing a larger number of smaller fields. This expansion in the nature and number of participants necessitates change in industry arrangements and governance structures.
- 1.2 The New Zealand gas industry participants have requested that Gas Industry Company Limited (“Gas Industry Co”) review current arrangements for managing gas emergency and contingency situations.
- 1.3 This is prompted by:
- a general view that current arrangements are not appropriate;
  - current arrangements lacking commercial imperatives, resulting in non-commercial and unfair outcomes, in particular, the absence of any compensation regime in respect of non-compliance and/or gas supply imbalances during emergency or contingency situations; and
  - the public withdrawal of Contact Energy from the current voluntary arrangements (albeit they are committed to acting “*reasonably and responsibly*”), illustrating the lack of certainty such voluntary arrangements involve.
- 1.4 In response to:
- that industry request;
  - the pivotal importance of safety and security of the national gas transmission system, and

consistent with Gas Industry Co’s deliverables under paragraph 5(h) of the Government Policy Statement on Gas Governance, dated October 2004 (“GPS”) that “*Risks relating to security of supply, including transport arrangements, are properly and efficiently handled by all parties*”, Gas Industry Co is reviewing arrangements for managing gas emergency and contingency situations.

## Summary of Issues Identified

- 1.5 Our analysis has raised the following specific issues, on which Gas Industry Co seeks industry feedback:
- the voluntary nature of the current industry developed arrangements in the National Gas Outage Contingency Plan (“NGOCP”) means that there is a significant (and, Gas Industry Co believes, an inappropriate) level of risk

associated with security of supply and the ability of the gas industry (and the wider country) to minimise the impact of any material gas outage;

- the existing definitions set out in the NGOCP (and in particular, the definitions of "Gas Contingency" and "Transmission System") require clarification and expansion to reflect the actual state of the gas market and to make these (technically and factually) neutral over time;
- although the existing processes set out in the NGOCP may be appropriate, the roles and obligations of the various industry participants need clarification (in particular in relation to communications);
- the role of the entity which is responsible for implementing the NGOCP in the event of a gas contingency needs further consideration, especially in respect of the powers which this entity has under mandatory gas emergency arrangements and the scope of any liability imposed on that entity;
- the specific obligations of industry participants, and the potential liabilities of industry participants, will also need to be considered if industry participants are required to comply with directions given pursuant to mandatory gas emergency arrangements; and
- a gas emergency pricing regime may be appropriate, if the gas emergency arrangements are compulsory. This would assist in balancing the gains and losses between industry participants which arise as a result of complying with directions given under the gas emergency arrangements. Gas Industry Co has received input from its Wholesale Markets Working Group ("WMWG") that the most suitable option may be an ex-post fair pricing determination in respect of emergency gas prices.

### Indicative Outcomes

1.6 Gas Industry Co's assessment of how best to address the issues that have been identified is a combination of enhancements to the existing plan and application of a new delivery mechanism.

1.7 The shortcomings of the existing plan, including:

- its voluntary nature;
- uncertainties inherent in the roles and definitions; and
- the lack of an emergency pricing scheme,

all point to a need to implement any replacement plan as a mandatory scheme. Of the alternatives available for achieving this, Gas Industry Co believes the only practicable option is to deliver a replacement plan by way of statutory regulations or rules.

- 1.8 Gas Industry Co has not made any final determination on any of the matters canvassed in this Discussion Paper. The purpose of this Discussion Paper is to address and obtain feedback from the industry on the issues identified. If it is decided to develop rules or regulations to implement new gas emergency arrangements, the industry will be given a further opportunity to provide feedback as part of a separate formal consultation pursuant to the Gas Act.

## 2 Introduction and Purpose

### Introduction

#### *Policy Framework*

- 2.1 The GPS, at paragraph 4, states that the Government's overall policy objective for the gas industry is:

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

- 2.2 The GPS also states at paragraph 5(h) that, consistent with this overall objective, the Government is seeking some specific outcomes, including:

*"[that] risks relating to security of supply, including transport arrangements, are properly and efficiently managed by all parties".*

- 2.3 This review of gas emergency arrangements is consistent with the outcomes specified in the GPS. Having a robust set of processes in place to appropriately deal with risks relating to the security of gas supply (including transport arrangements) is an essential part of ensuring the certainty of supply of gas and the overall efficiency of the gas sector (including the supply to large and small end-users).

#### *Current Arrangements*

- 2.4 Currently, the NGOCP is the key industry arrangement dealing with risks relating to security of supply. The NGOCP is a voluntary arrangement between industry participants, which does not attempt or purport to impose any enforceable obligations on any industry participant.

- 2.5 The NGOCP's key requirement is to stabilise the transportation systems, preserve line pack and prevent pressures falling to pre-set levels that might trigger automatic shutdowns.

- 2.6 As part of Gas Industry Co's analysis of gas emergency arrangements, we have reviewed, and identified areas where we believe improvement can be made to the existing industry-developed NGOCP, which is consistent with the feedback received from the industry.

### Purpose

- 2.7 The purpose of this Discussion Paper is to seek some initial feedback from the industry on Gas Industry Co's analysis of:

- the appropriateness of gas emergency arrangements being voluntary (i.e. is it realistic to expect industry participants to comply with voluntary arrangements in the event of a major emergency or contingency situation, especially where to do so may result in substantial commercial disadvantage?);

- areas for improvement to the current gas emergency arrangements (i.e. NGOCP);
- how industry participants might be faced with appropriate price signals in an emergency or contingency situation so as to incentivise more efficient outcomes;
- further general issues, or issues arising due to a change in the New Zealand gas market, that should be addressed as part of this review; and
- its preferred approach to amend existing gas emergency arrangements by developing regulations to broadly govern:
  - systems and processes for emergency management;
  - roles of parties during a contingency or emergency situation; and
  - a gas emergency pricing regime.

### Submission Requirements

- 2.8 Gas Industry Co invites submissions in response to the matters raised in this Discussion Paper by **5 pm on Friday 25 August 2006**. Please note that submissions received after this date are unlikely to be able to be considered.
- 2.9 Gas Industry Co's preference is to receive submissions in electronic form (Microsoft Word or PDF format) and to receive one hard copy of the electronic version. The electronic version should be emailed with the phrase "Submission on Review of NGOCP" in the subject header to [ian.dempster@gasindustry.co.nz](mailto:ian.dempster@gasindustry.co.nz) and one hard copy of the submission should be posted to the address below:
- Ilan Dempster  
Gas Industry Co  
Level 9, State Insurance Tower  
1 Willis Street  
PO Box 10-646  
Wellington  
New Zealand  
Tel: +64 4 472 1800  
Fax: +64 4 472 1801
- 2.10 Gas Industry Co will acknowledge receipt of all submissions electronically. Please contact Ilan Dempster if you do not receive electronic acknowledgement of your submission within two business days.
- 2.11 Submissions should be provided in the format shown in Appendix A (a word document containing that Appendix is available in the consultation area of the Gas Industry Co website). Gas Industry Co values openness and transparency and therefore submissions will generally be made available to the public on the Gas Industry Co's website. Submitters should discuss any intended provision of confidential information with Gas Industry Co prior to submitting the information.



## 3 Regulatory Context

### GPS

- 3.1 The GPS sets out the Government's policy for the development of New Zealand's gas industry, and its expectations for industry action. In developing any arrangements, Gas Industry Co needs to have regard to the Government's overall policy objective (paragraph 4) for the New Zealand gas industry which is:

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

- 3.2 Paragraph 5 of the GPS sets out the specific outcomes sought by the Government, including:

*"[that] risks relating to security of supply, including transport arrangements, are properly and efficiently managed by parties."*

- 3.3 The GPS sets the date for delivery of gas emergency arrangements, being December 2005. However, Gas Industry Co has, on behalf of the industry, agreed with the Minister of Energy to extend the deadlines. The new dates for delivery of new gas emergency arrangements are set out in Gas Industry Co's Strategic Plan issued pursuant to section 43ZQ of the Gas Act.

### Gas Industry Co Strategic Plan

- 3.4 Under the Strategic Plan 2007/2009, the development of sound emergency management systems is highlighted as one of six key strategic priorities.
- 3.5 The date for delivery of the proposal as set out in this Discussion Paper is September 2006 with any recommendation to the Minister of Energy due March 2007.

### Gas Act

- 3.6 Section 43F(2) of the Gas Act contemplates the Government making regulations and rules in relation to wholesale markets, transmission and distribution of gas, and in particular:

*"arrangements relating to outages and other security of supply contingencies".*

## 4 Is it Appropriate that Gas Emergency Arrangements are Voluntary?

- 4.1 As set out above, the New Zealand gas industry is in a phase of transition, from an industry made up of a small number of participants managing large fields to a developing industry made up of a larger number of participants managing a larger number of smaller fields. This expansion in the nature and number of participants necessitates change in industry arrangements and governance structures.
- 4.2 Gas Industry Co is concerned that under the current NGOCP there is a lack of contractual or other binding relationships between the various parties that provide:
- certainty as to the processes to be followed during an emergency or contingency situation; and
  - that gas taken is paid for.
- 4.3 During an emergency or contingency situation certainty is required and all parties affected by that emergency or contingency situation must work together with clear parameters to mitigate the damage caused by it.
- 4.4 Without such certainty industry participants are unable to manage risks (both internally and externally) associated with emergency and contingency situations. In addition, without certainty as to the actions of other industry participants during an emergency or contingency situation, decisions may be made based on inaccurate information resulting in substantial financial ramifications. Such uncertainty affects the whole business from operational to legal to insurance and risk management.
- 4.5 Gas emergency arrangements encompass pivotal safety and security measures. Gas Industry Co believes that safety and security measures should be certain and enforceable. This is a reputational issue for the whole gas industry.
- 4.6 Although a voluntary arrangement is always vulnerable to one or more parties ceasing to support it, the current situation was triggered by the lack of any emergency pricing arrangements.
- 4.7 For emergency pricing arrangements to be effective suggests that all parties need to be required to settle any (inadvertent) trading under emergency conditions at those emergency prices. Such a requirement is unenforceable, and therefore ineffective, under voluntary arrangements.
- 4.8 Given the above, Gas Industry Co believes it is appropriate that any mechanism to implement arrangements for emergency or contingency situations be mandatory.

**Q1:** *Do you agree that mechanisms to implement arrangements for emergency or contingency situations must be mandatory? If not, please explain.*

## Mechanisms to Implement Mandatory Arrangements

- 4.9 Industry arrangements, including codes of practice, protocols and contracts can be voluntary or mandatory.
- 4.10 To be mandatory (i.e. of binding legal effect) all of the affected participants will need to be willing to sign-up to such an arrangement and the arrangement must contain some mechanism to make it binding on all future participants. In addition, it is prudent to provide a change mechanism so that the arrangement does not need to be re-executed where an amendment or update is required.
- 4.11 Gas Industry Co does not have the power under the Gas Act to approve or make binding on industry participants any industry arrangements, including codes of practice, protocols, contracts etc. The only tool Gas Industry Co has for making arrangements mandatory is to recommend that the Minister of Energy approve regulations or rules under the powers delegated to the Minister of Energy under the Gas Act.
- 4.12 Although technically it might be possible to make an industry arrangement mandatory by including it in the contractual arrangements of another party (e.g. asking distributors and/or transmission network owners to include a provision in their contractual arrangements that access to their networks requires compliance with Gas Industry Co approved gas emergency arrangements), this presents a whole new set of complexities, including:
- requiring distributors and/or transmission network owners to agree to include a provision in their existing contracts requiring compliance with the Gas Industry Co approved gas emergency arrangements and then getting each of those distributors and/or transmission network owners to actually amend its existing and future contracts;
  - effectively giving distributors and/or transmission network owners a right of veto over any terms of those gas emergency arrangements and any amendment or update to it over time;
  - such an arrangement will not be subject to the Gas Act; and
  - the possibility of it offending the “refusing to deal” provisions of the Commerce Act 1986 (“Commerce Act”).
- 4.13 As a result, Gas Industry Co has identified two possible mechanisms to implement arrangements for emergency or contingency situations, being:
- a multi-lateral industry agreement (“Pan-Industry Agreement”); and
  - rules or regulations imposed by the Government under the authority of a statute.

**Q2:** *Do you agree Gas Industry Co has identified the most likely alternatives for mechanisms to implement arrangements for emergency or contingency situations? If not, please provide details of any other likely alternative mechanisms.*

## **Analysis of Possible Mechanisms**

### *Pan- Industry Agreement*

#### *Obtaining consensus as to the content of a Pan-Industry Agreement*

- 4.14 A mandatory multi-lateral industry agreement would need to be drafted, negotiated, approved and then executed by all affected parties.
- 4.15 Differing commercial interests and the fact that curtailment scheduling and a gas emergency pricing regime (including price determination provisions) are involved make achieving consensus on the content of the Pan-Industry Agreement problematic.
- 4.16 A further issue arises where a new party is required to enter the Pan-Industry Agreement and has not been a party to drafting, negotiating and approving the original Pan-Industry Agreement<sup>1</sup>. How will it be possible to force a new party to execute and be bound by the Pan-Industry Agreement?
- 4.17 As set out at paragraph 4.11 above, Gas Industry Co has no power to make a Pan-Industry Agreement binding on parties (existing and/or new) and there does not appear to be any other mechanism available to compel a new party to execute, and be bound by, the Pan-Industry Agreement.

#### *Commerce Act Risks*

- 4.18 The difficulty under any Pan-Industry Agreement is the risks associated with the Commerce Act. The following types of Pan-Industry arrangements between competitors may, in principle, raise issues under the Commerce Act:
- arrangements which affect price;
  - information sharing between competitors;
  - cost allocation procedures;
  - prudential provisions;
  - admission and disciplinary requirements; and

---

<sup>1</sup> For example, the dynamics of ownership can result in assets that were the subject of a Pan Industry Agreement transferring to an owner not bound by such an agreement.

- any other restrictions on participation.
- 4.19 A Pan-Industry Agreement which included any of these arrangements would require close examination to ensure that it did not have the effect of fixing prices, excluding competitors or otherwise lessening competition before it would be possible to conclude with any confidence that an authorisation was not required. These types of arrangements are also likely to trigger, at the very least, a Commerce Commission investigation, if no authorisation is applied for.
- 4.20 The Commerce Commission has taken the view that any industry arrangement agreed between competitors which has the potential to include restrictive trade practices, at the least requires some scrutiny from the Commerce Commission, and may require authorisation for it to become a legal arrangement. Given the proposed compensation arrangements will include price determination provisions it is almost certain that Commerce Commission authorisation will be required.
- 4.21 Experience suggests that applications for authorisation of such arrangements are seldom as straightforward as hoped. There is inevitably someone opposed to the authorisation and the process tends to become protracted. For example, the application for authorisation of the electricity industry self-regulatory arrangement took nine months.
- 4.22 The risks associated with entering into a Pan-Industry Agreement, without obtaining Commerce Act authorisation, are that a complaint may be made to the Commerce Commission or the Commerce Commission may decide to investigate of its own initiative. A Commerce Commission investigation alone will involve substantial delay, expenses and resource drain.
- 4.23 If the Commerce Commission (or the High Court) concludes that the Commerce Act has been breached, those provisions of the Pan-Industry Agreement in breach would be unenforceable and pecuniary penalties may also be imposed. In addition, parties may be open to a claim for damages resulting from enforcement of a provision of the Pan-Industry Agreement that was later found to be in breach of the Commerce Act.
- 4.24 The risks associated with obtaining an authorisation also include delay, expense and resource drain. The Commerce Commission may conclude that the Act does not apply, and it therefore does not have jurisdiction to give an authorisation. Such an outcome would leave the arrangement with no protection after the delay, expense and resource drain of the application. Alternatively, the Commerce Commission may grant an authorisation on conditions which require changes to the Pan-Industry Agreement.
- 4.25 Those conditions may require renegotiation and redrafting of the Pan Industry Agreement formally agreed by the industry and re-open the issue of reaching consensus, especially where the parties believe the conditions are unreasonable, impractical, onerous and/or result in further delay, expense and resource drain.

- 4.26 It is also important to bear in mind that it may be difficult to obtain authorisation of a detailed Pan-Industry Agreement in its entirety. The Commerce Commission will only authorise the specific provisions of the arrangement that are put to it for authorisation and will explicitly disclaim authorisation of the arrangement as a whole. This means that, the risks mentioned in paragraphs 4.22 and 4.23 will still exist in respect of non-authorised provisions of a Pan-Industry Agreement.

*Conclusion on Pan-Industry Agreement*

- 4.27 Given the:

- difficulty in reaching consensus and execution of voluntary and non-binding codes of practices and protocols let alone a Pan-Industry Agreement which is legally binding;
- nature of provisions that would need to be included in a Pan-Industry Agreement;
- diverse nature of the parties that would be required to agree the provisions to be included in a Pan-Industry Agreement and the fact that they include direct competitors;
- inability to compel execution and compliance with the Pan-Industry Agreement for new parties; and
- Commerce Act risks associated with:
  - applying for an authorisation (in terms of delay, expense and resource drain);
  - any conditions that may attach to an authorisation granted by the Commerce Commission may be unreasonable, impractical, onerous and/or result in further delay, expense and resource drain;
  - an authorisation being revoked at any time by the Commerce Commission due to a material change in circumstances (therefore the risk runs the full life of the Pan-Industry Agreement);
  - all amendments to the Pan-Industry Agreement likewise may require authorisation or investigation; and
  - not applying for an authorisation results in no protection from the Commerce Act at the time of execution and for the life of the Pan-Industry Agreement,

Gas Industry Co does not believe that implementation of arrangements for emergency or contingency situations by way of a legally binding Pan-Industry Agreement is an optimum mechanism.

**Q3:** *Do you agree with Gas Industry Co's analysis of a Pan-Industry Agreement as a mechanism to implement arrangements for emergency or contingency situations? If not, please explain.*

### *Rules or Regulations*

#### *Mandatory by operation of law*

- 4.28 The risks associated with getting a divergent group of industry participants (often involving direct competitors) to agree to the content and drafting of any industry wide arrangement, including a Pan-Industry Agreement, do not apply to rules or regulations. Rules or regulations made by the Minister of Energy pursuant to the powers granted under the Gas Act are binding on all relevant parties by operation of law.
- 4.29 Any such rules or regulations would take precedence over any contractual or other non-regulatory arrangements (MPOC, TSAs etc) such that where there were any inconsistencies between the rules or regulations and those other arrangements, (e.g. differing curtailment scheduling) the rules or regulations would prevail.
- 4.30 As set out in paragraph 3.3 above, section 43F(2) of the Gas Act directly contemplates rules or regulations as a mechanism to implement deliverables under the GPS in respect of "*arrangements relating to outages and other security of supply contingencies*".
- 4.31 Therefore, rules or regulations can be made for gas emergency arrangements provided Gas Industry Co complies with the process under section 43 of the Gas Act in making a recommendation for any rules or regulations to the Minister of Energy.
- 4.32 This process involves:
- making an assessment of the proposed regulation or rule against any reasonably practicable alternatives taking into account:
    - the benefits and costs;
    - the extent to which the objective would be promoted; and
    - any other matters considered relevant;
  - preparing a statement of proposal containing specified matters and consulting with persons likely to be affected by the proposal; and
  - considering submissions from those persons, before making a recommendation to the Minister.
- 4.33 The consultation requirements under the Gas Act (undertaken prior to Gas Industry Co recommending rules or regulations to the Minister of Energy for

approval) provide an opportunity for the gas industry to express its views and have input on any proposed rules or regulations.

*No Commerce Act Risk*

- 4.34 Rules or regulations do not suffer from the same risks associated with voluntary arrangements or Pan-Industry Agreements. Section 43ZZR of the Gas Act authorises various matters for the purpose of section 43 of the Commerce Act 1986, including anything done by Gas Industry Co or an industry participant in the course of, or for the purpose of, recommending any gas governance regulations or rules, or complying with, enforcing, or otherwise administering any such regulations or rules.

*No delay in ability to meet the deliverables under the GPS*

- 4.35 Rules or regulations provide certainty as to Gas Industry Co and the industry's ability to meet the deliverables agreed with the Minister of Energy under the Strategic Plan. As Gas Industry Co will be primarily responsible for drafting any such rules or regulations, it is within its control to manage timelines and include industry feedback received as part of the separate formal consultation process under the Gas Act.

*Conclusion on Rules or Regulations*

- 4.36 Given the rules or regulations alternative:
- does not suffer from risks associated with obtaining consensus of divergent parties (including direct competitors);
  - does not suffer from the risks associated with attempting to bind new parties to a Pan-Industry Agreement;
  - does not suffer from any of the Commerce Act risks;
  - provides that breaches can be addressed, in most cases, without resorting to expensive legal action; and
  - provides greatest certainty as to the ability and timing of Gas Industry Co and the industry meeting the deliverables under the GPS.

Gas Industry Co believes that implementation of arrangements for emergency or contingency situations by way of rules or regulations recommended to the Minister of Energy under the Gas Act is the optimum mechanism.

**Q4:** *Do you agree with Gas Industry Co's analysis of rules or regulations as a mechanism to implement arrangements for emergency or contingency situations? If not, please explain.*



### *Choice between Rules and Regulations*

- 4.37 Section 43Q(1) of the Gas Act allows the Minister of Energy to make a rule for all or any of the purposes for which a gas governance regulation may be made.
- 4.38 Over time general practice has developed whereby rules are generally preferred where the subject matter is of a technical nature with limited application. Whereas regulations are generally preferred where they have wide impact, materially affecting the interests of individuals and the content or principles need to be entrenched.
- 4.39 Ultimately, it is the decision of the Minister of Energy as to whether to recommend rules or regulations to the Governor General for adoption. Under section 43Q(2) of the Gas Act, in deciding whether to make a recommendation for a rule, the Minister must only have regard to the following:
- “(a) the importance of the rule, including whether the rule has a material effect on the rights and interests of individuals:*
  - (b) the subject matter of the rule, including whether the rule contains detailed or technical matters rather than matters of general principle:*
  - (c) the application of the rule, including-*
    - (i) whether the rule applies principally to a particular group (e.g. industry participants) rather than the general public:*
    - (ii) whether the benefits of publication in accordance with section 43R rather than the Acts and Regulations Publication Act 1989 outweigh the costs of publication by that method:*
  - (d) the expertise and rule-making procedures of the recommending body.*
- 4.40 Given that the proposed gas emergency arrangements:
- govern safety and security of supply issues which do have a material effects on the rights and interests of individuals;
  - do not incorporate detailed and technical matters;
  - apply to all industry participants but also affects all customers; and
  - include pivotal issues that are matters of national importance, requiring certainty,

Gas Industry Co believes that the Minister of Energy may conclude that the new gas emergency arrangements should be implemented by regulations not rules.

**Q5:** *Do you believe the gas emergency arrangements are most appropriately implemented by rules or regulations recommended to the Minister of Energy? If not, please explain.*

## 5 Review of Existing Gas Emergency Arrangements

### Framework Design

5.1 Gas Industry Co believes that to obtain the best outcome for the New Zealand gas industry, the framework design for any gas emergency arrangements should comply with the following overarching principles:

- be equitable;
- apply to all industry participants and to all transmission systems;
- clearly define roles and responsibilities of all affected parties;
- encompass and build on the risk management systems and processes that industry participants already have in place to manage emergency or contingency situations. It is envisaged that in many situations no new systems or processes will be required but rather there will be transparency as to what measures individual industry participants have in place;
- emphasise the need for preparedness for emergency and contingency situations to ensure appropriate processes and systems are in place to give the gas industry the best chance of limiting any damage during an emergency or contingency situation. Gas Industry Co envisages that this requirement may include training seminars, induction processes for new staff that include emergency management training, tests or drills being run periodically and updating of emergency contact details;
- providing certainty for industry participants so that they can make informed decisions in respect of their own risk management;
- be cognisant that, at times, decisions made during an emergency or contingency situation are made:
  - relying on limited, incomplete and sometimes conflicting information;
  - relying on forecast information of the future state of events; and
  - under stressful conditions.

**Q6:** *Do you agree with Gas Industry Co's analysis of the framework design for emergency management arrangements? If not, please explain.*

**Q7:** *Are there any other principles you believe should be included? If so, please provide details of those additional principles.*

5.2 If a mandatory regime is adopted for gas emergency arrangements, amendments to the existing arrangements will be necessary. Gas Industry Co believes the most

efficient approach is to adapt the NGOCP to make it mandatory while also addressing other areas where these arrangements can be improved.

**Q8:** *Do you agree with Gas Industry Co's approach? If not, please explain.*

### Issues Identified

- 5.3 In analysing the adequacy of current gas emergency arrangements, Gas Industry Co has reviewed, and identified some areas where improvement can be made to, the existing industry-developed NGOCP. The issues arising fall into five broad categories, being:
- **Definitions:** the existing definitions (in particular, of "Gas Contingency" and "Transmission System") require clarification and expansion to provide certainty, reflect the actual state of the New Zealand gas market and to make these (technically and factually) neutral over time;
  - **Obligations and Liabilities:** the specific obligations of industry participants, and the potential liabilities of industry participants, needs further consideration (especially if industry participants are required to comply with directions given pursuant to mandatory gas emergency arrangements);
  - **Process and Systems:** the role of the entity which is responsible for implementing emergency arrangements needs further consideration, especially in respect of the powers which this entity would have under mandatory gas emergency arrangements and the scope of any liability which would be imposed on that entity;
  - **Emergency Pricing Regime:** an emergency pricing regime is appropriate, especially where emergency shedding schedules are not based on a pro rata decrease in supply, thus affecting industry participants and consumers to different degrees; and
  - **Other matters:** including the scope of applying gas emergency arrangements requires clarification, i.e. who is bound to comply.
- 5.4 These categories of issues are discussed separately in chapters 6-10 (inclusive) of this Discussion Paper.

### Timing with review of Wholesale Gas Market

- 5.5 If a comprehensive Wholesale Gas Market platform is established and functioning to a level where it can provide price indications to the market during emergency or contingency situations (e.g. along the same lines as the Wholesale Electricity Market), this has the potential to have a significant effect on the way in which gas emergency arrangements would be applied. This will require a review of any emergency arrangements. However, Gas Industry Co believes that there is a need to have mandatory emergency arrangements in place as soon as possible

and therefore believes it is prudent not to wait until such time as a wholesale market has been developed and established.

**Q9:** *Do you agree that the gas emergency arrangements should be progressed now, rather than waiting for completion of the wholesale market review? If not, please explain.*

## 6 Definitions in the Current Plan

- 6.1 The NGOCP states that its key requirement is to stabilise the transportation systems, preserve line pack and prevent pressures falling to pre-set levels that might trigger automatic shutdowns, by encouraging industry participants to take appropriate actions to deal with the emergency or contingency event. However, it is not always clear when the existing NGOCP applies or how it is intended to operate. In particular, the definitions set out in the existing NGOCP are not sufficiently certain in order to independently determine when the NGOCP should be applied.
- 6.2 It is clearly in the best interests of industry participants to know exactly when an emergency or contingency situation occurs. Definitions of key terms need to be sufficiently clear to enable industry participants to understand when various obligations are triggered. Unfortunately, that is not always the case under existing gas emergency arrangements. Ideally these would include an objective element/the ability to make objective assessments, but this may not be appropriate or feasible in some cases (i.e. where the system operator has to determine whether the stability of the transmission system could be under threat).
- 6.3 Gas Industry Co has identified some definitions in the NGOCP which it believes require further consideration. These are discussed below.

### "Gas Contingency"

- 6.4 The NGOCP currently defines "Gas Contingency", "National Gas Contingency" and "Regional Gas Contingency" as follows:

*"Gas Contingency means any planned or unplanned event resulting in the interruption of gas supplies that impacts on a significant group of Consumers, such that in the opinion of [Vector] Transmission co-operative action is essential to maintain stable and safe conditions.*

*A **National Gas Contingency** is one where the gas supply (principally Maui Gas at this time) into the gas transmission system, is restricted or totally lost and the impact is likely to apply nationally.*

*A **Regional Gas Contingency** is one where the gas transmission system deliverability is restricted or completely interrupted and the impact is likely to affect only a region of the country."*

- 6.5 The key elements of the current definition of "Gas Contingency" are:
- the requirement for interruption of gas supplies;
  - the requirement for a significant group of consumers to be affected; and
  - the subjective decision made by Vector Transmission that co-operative action is essential in order to maintain safe and stable conditions.

- 6.6 This definition gives rise to a number of questions:
- is a requirement for "interruption of gas supplies" appropriate, or might there be a trigger point short of actual interruption?;
  - what constitutes a "significant group of consumers" and to what level must that group be "impacted"?
  - is Vector Transmission (acting unilaterally) the appropriate entity to make the decision that co-operative action is necessary?;
  - what should be the basis for Vector Transmission's decision? For example, should there be some objective standard which must be met in making any such decision. (See the discussion below in relation to the role of the Emergency Operator - discussed more fully in Section (8)); and
  - what constitutes "stable and safe conditions" in any particular circumstance?
- 6.7 Gas Industry Co considers that, to the extent possible, the definition of a "contingency event" should be an objective one, so that industry participants are able to determine with a reasonable degree of certainty when the emergency management processes will be triggered. However, Gas Industry Co is aware that these decisions will be made in emergency situations where information may be unavailable, incomplete and/or conflicting and involve information based on forecasting future circumstances. Therefore, some degree of flexibility and discretion is prudent. Gas Industry Co believes any such definition will need to balance both the desire for objectivity/certainty and the desire for flexibility.
- 6.8 Gas Industry Co also considers that an "effects based" definition is more appropriate than a definition based around the underlying cause of the situation due to the fact that:
- there are a large number of underlying events that might give rise to an emergency situation, including;
    - unexpected loss of supply by one or more producers;
    - unexpected excess demand;
    - transmission system issues, including planned or unplanned outages;
    - actual or potential threats to personal safety and/or of material property damage; and
    - actual or potential risk to the integrity of the transmission system or the automatic shutdown of (all or part of) the transmission system (along the lines set out in the definitions of "contingency" and "emergency" in the Maui Pipeline Operating Code ("MPOC"));

- it would appear difficult to provide a concise yet comprehensive list of the types of underlying events that might give rise to an emergency or contingency situation;
- in the context of a decision to involve emergency management processes, the cause of the situation is largely irrelevant. It is the effect of the event that is important; and
- an "effects based" definition allows all such underlying events to be captured, while providing certainty as to when the emergency management processes are triggered.

6.9 Options which might be considered for an "effects-based" decision include one or more of the following:

- an identified "basic operational minimum level" of transmission system performance which, if breached (for whatever reason), constituted a "contingency event". For example, the trigger point might be;
  - a minimum level of line pack in the Maui Pipeline; and/or
  - a minimum pressure level in the relevant pipeline(s).
- by way of example, we note the approach taken in Part C of the Electricity Governance Rules where the inability to meet the "principal performance obligations" (to maintain frequency, voltage and supply/demand imbalances) is a trigger point for emergency action;
- an objective decision that circumstances warrant invoking emergency management processes. This might allow more scope to take "pre-emptive" action; and
- a declaration by a Government agency or similar that a gas emergency or contingency situation has occurred.

6.10 Considering these options, the first would provide the greatest level of objectivity and certainty for the industry. However it does lack flexibility. Unless there is confidence that the identified "basic operational minimum level" is sufficient to capture all emergency or contingency situations, it may not fulfil its purpose. Conversely, the latter options provide much greater flexibility, but significantly reduce certainty. A definition that combines the first and second options might provide an answer. For example:

**"Gas Contingency"** means:

- (a) the reduction (actual or forecast) of line pack in the Maui Pipeline below [specified minimum level]; and/or
- (b) any other event which in the opinion of the person operating the system requires emergency action by industry participants in order to maintain stable and safe conditions on the transmission network.



- 6.11 Gas Industry Co notes that adopting a definition based around line pack levels would likely also require an obligation on transmission network systems/operators to utilise any gas balancing arrangements that they have, prior to an emergency or contingency situation applying.
- 6.12 There may be a need to have (one or more) secondary definition(s) which capture the impact of the relevant emergency or contingency situation. For example, the NGOCP currently provides that if the “contingency event” causes the pressure in the Maui Pipeline to fall below 32 bar, phase 4 of the NGOCP is triggered. The purpose of such secondary definitions is to provide certainty as to when additional obligations on industry participants will arise (and, in particular, to indicate the point at which a declaration is able to be made that the NGOCP process has moved from one phase of the process to another).
- 6.13 Given that the definition of "contingency event" (as amended) may cover a wider range of events than is currently contemplated, it is not clear whether the current distinction between national and regional contingencies will need to be retained. However, given that a regional contingency may involve (for example) supply to a specific distribution network only, there may be value in keeping this separate definition (and the separate phased process) in place. During a “regional contingency”, downstream industry participants will need to comply with information sharing and directions in order to enable the build of shedding programmes up through the network.

**Q10:** *Do you agree that the current definition of "Gas Contingency" should be amended? If not, please provide reasons.*

**Q11:** *If you agree that the definition should be amended:*  
 (a) *do you agree that an 'effects-based' decision is most appropriate?*  
 (b) *do you have any suggestion as to a basic operational minimum level to underpin the definition?*  
 (c) *what, if any, degree of discretion should there be to determine that a Gas Contingency has occurred?*  
 (d) *how would you define "Gas Contingency"?*

**Q12:** *Do you consider there should be a separate definition for regional and national contingencies, or some other split? If yes, please indicate how and why (including draft definitions)*

### "Transmission System"

- 6.14 The current definition of "Transmission System" under the existing NGOCP is as follows:

*"Transmission System means all of the high-pressure pipeline systems operated by [Vector] Transmission to deliver gas to gate stations."*

- 6.15 This definition determines the boundaries of the transmission system by reference to Vector as the system operator. It does not reflect accurately the fact that there

are parts of the high pressure gas transmission system which are owned by various parties and which may (in future) be operated by separate entities. This definition will need to be neutral as to any changes in ownership/management of such assets and will also need to be clear that it covers all parts of any high pressure gas transmission system.

**Q13:** *Do you agree that the current definition of "Transmission System" should be amended? If not, please provide reasons. If yes, please provide a draft definition.*

### "NGC Transmission"

6.16 The use of the term "NGC Transmission" in the NGOCP is intended to cover the role of the operator of the transmission system (although Vector Transmission is now the actual operator, and generally we refer to Vector Transmission in this Discussion Paper). This definition will need to be amended to be neutral as to any change in the identity of the transmission system operator over time (e.g. "System Operator" or similar). (See also the discussion around the role of Emergency Operator, below.)

**Q14:** *Do you agree that the current definition of "NGC Transmission" should be replaced with a more generic definition of "System Operator" (or similar) as proposed? If not, please provide reasons.*

## 7 Obligations and Liabilities of Industry Participants

### Obligations on Industry Participants

- 7.1 The NGOCP currently provides for good faith co-operation of industry participants during a contingency event. Adopting compulsory gas emergency arrangements will result in industry participants being obliged to:
- have robust processes and systems in place that ensure, to the best of their ability, they are prepared for an emergency or contingency situation;
  - inform any events or circumstances which may, are likely to, or did, lead to an emergency or contingency situation under the gas emergency arrangements;
  - comply with directions in a timely manner once an emergency or contingency situation has been declared;
  - provide information in relation to supply, demand and curtailment planning as required, and in a timely manner; and
  - provide other information, and communicate, as required during the period of the emergency or contingency situation and after its resolution for the purpose of determining emergency pricing and subsequent payments and receipts.

There should also be some (specific) carve-outs from these obligations (for example, where to comply with any direction would impact on the safety of personnel). It is proposed that these elements be incorporated into the gas emergency arrangements.

- 7.2 The governance framework will need to clearly, and unambiguously, define the obligations so that industry participants are in a position both to be able to comply and know that they comply.

**Q15:** *Do you agree with the scope of the proposed obligations to be imposed upon industry participants? If not, please provide reasons.*

**Q16:** *What, if any, other carve-outs to the proposed obligations of industry participants do you believe are necessary?*

### Liabilities of Industry Participants

- 7.3 Gas Industry Co believes any governance framework applying to gas emergency arrangements should incentivise industry participants to firstly put appropriate systems and processes in place ahead of an emergency or contingency situation arising and, secondly, to co-operate to mitigate the damage arising from any emergency or contingency situation.

- 7.4 It is proposed that industry participants will be liable under the gas emergency arrangements for not:
- ensuring that appropriate processes/systems are in place to enable it to comply with its obligations under the gas emergency arrangements;
  - complying with the gas emergency arrangements, including any direction given; and
  - using reasonable endeavours to ensure that all information provided is accurate.
- 7.5 Gas Industry Co is aware that industry participants would already have many of these system and processes in place as part of their risk management strategies and good business practices. It is envisaged that including these provisions as mandatory obligations, in most cases, will involve few or no additional processes and systems to be developed by industry participants.
- 7.6 The issue of the liability of industry participants and also the ability of industry participants to potentially recover losses from other industry participants, are key issues in relation to the acceptability of a mandatory contingency regime. These issues are discussed in more detail in the context of disputes and enforcement and a proposed emergency pricing regime, below.

**Q17:** *Do you agree with the proposed approach to the liability of industry participants? If not, please provide reasons.*

**Q18:** *Is Gas Industry Co's belief that the proposed gas emergency arrangements will not require significant additional processes and systems to be developed correct? If not, please explain.*

## 8 Processes and Systems

### Current Processes and Systems

8.1 The existing NGOCP sets out a five phase process to be followed in the case of a National Gas Contingency, as follows:

- **Phase 1 – Initiation:** Objectives are to alert relevant parties to the existence of a potential contingency; to allow for initial preparations to preserve line pack; and to manage effectively the release of contingency volume line pack in accordance with the MPOC. The NGOCP moves to Phase 2 if line pack drops below the emergency line pack limit (as established by Vector Transmission).
- **Phase 2 – Line Pack Preservation:** Objectives are to implement initial load shedding by major plant; to alert relevant industry participants to prepare for load shedding of reticulated sector consumers and direct supply consumers; and to activate the Contingency Communications Team. The NGOCP moves to Phase 3 if line pack pressure drops below 32 bar.
- **Phase 3 – Stabilisation:** Objectives are to stabilise all parts of the transmission system by ensuring inputs and outputs are balanced and to preserve line pack for safety purposes; to expedite transport and delivery of alternative gas supplies; and to issue specific load shedding instructions to wholesalers and retailers (as required).

The NGOCP can move directly from Phases 1, 2 or 3 to Phase 4 only when Vector Transmission confirms that all parts of the transmission systems have been stabilised, gas sources are stable, and gas demands have reduced to "agreed" levels (but the NGOCP does not specify how these levels are agreed or by whom).

- **Phase 4 – Post-Stabilisation:** Objective is to maintain system stability; system operator will impose specific constraints on gas use during this phase if the safety of the transmission system is threatened. This phase also covers gas replacement.

The NGOCP moves to Phase 5 when gas supplies and transmission system delivery become available in sufficient quantities to enable wholesalers to recommence normal operation and consumers to be re-supplied.

- **Phase 5 – Recovery:** Objective is to accommodate the orderly resumption of offtake of gas by all consumers once the supply of gas is restored.

8.2 A three-phase approach is taken in the case of a Regional Gas Contingency, as follows:

- **Phase A – Initiation:** Objective is to alert relevant industry participants and to allow for initial preparations to preserve line pack (this phase may be bypassed if gas flows are significantly affected). The NGOCP moves to Phase B if line

pack is, in the opinion of Vector Transmission, likely to drop below a level required to meet predicted demand.

- **Phase B – Load Shedding:** Objectives are to implement load shedding by consumers to preserve line pack and stabilise the transmission system and distribution networks; and to activate the Contingency Communications Team. The NGOCP moves to Phase C when Vector Transmission confirms that the transmission systems have been stabilised and gas delivery has been reinstated.
- **Phase C – Recovery:** Objective is to accommodate the orderly resumption of supply of gas to all consumers once the deliverability of the transmission system is restored.

8.3 Potential issues identified with the current processes include the following:

- the existing NGOCP relies on the co-ordination of industry participants' responses to a contingency event. Gas Industry Co believes it is essential that the obligations on industry participants in respect of gas emergency arrangements are clearly set out, together with clear lines of communication, and that whoever is administering the plan must also have confidence industry participants will comply with those obligations. This is not guaranteed by the existing voluntary approach of the NGOCP;<sup>2</sup>
- there is no certainty for industry participants as to when a contingency event has occurred and when the processes set out in the NGOCP come into force. Similarly, there is no certainty as to the point at which the contingency event has ceased to take effect (i.e. the NGOCP is no longer in force); and
- as industry participants may have to act against their (individual) best commercial interests in complying with their obligations under gas emergency arrangements, these obligations will need to be compulsory and binding. This also recognises the fact that industry participants may face potential wealth transfers during a contingency event.

8.4 As a general observation, the processes in the NGOCP themselves are not the subject of this review (on the basis that such a consideration would be more of an operational/technical issue); the key issue is certainty as to when these processes come into force.

---

<sup>2</sup> It should be emphasised that the key issue is that a voluntary arrangement cannot **guarantee** outcomes – nevertheless it must be acknowledged the existing voluntary arrangements have worked very well in the past.

### *Relationship with MPOC*

- 8.5 The MPOC currently provides for steps to be taken by the Maui Pipeline owner to interrupt or reduce flows if the system operator considers this is necessary in certain circumstances, including where a force majeure or contingency event occurs. Depending on how a gas contingency event is defined in the gas emergency arrangements, the arrangement could come into force (and therefore pre-empt) the MPOC at a point where the Maui Pipeline operator has commenced curtailment. If this were the case, this could give rise to potential inequalities between industry participants. For example:
- if there is an inconsistency between curtailment carried out pursuant to the MPOC and the curtailment plans set out in the gas emergency arrangements, some industry participants may be disadvantaged by the timing of the declaration of the contingency event; and
  - depending on the emergency pricing regime which is to apply in respect of mandatory arrangements (in particular in relation to compulsory directions to industry participants), some industry participants may be disadvantaged (or potentially benefit) depending on whether the gas flows were interrupted pursuant to the MPOC or pursuant to the gas emergency arrangements. This latter point is made more acute by the lack of a dynamic market for gas balancing in New Zealand.
- 8.6 Given that there is a potential for conflict between the MPOC and any gas emergency arrangements, it appears appropriate to:
- ensure some level of consistency between MPOC and the gas emergency arrangements; and
  - have a clear identifiable point where MPOC rules are superseded by the gas emergency arrangements.
- 8.7 If new gas emergency arrangements are implemented by Rules, and an inconsistency arises between those Rules and MPOC, from a legal perspective the Rules will prevail and override any contractual obligation under the MPOC.

**Q19:** *Do you agree that any gas emergency arrangements should be consistent with the processes set out in the MPOC in respect of contingency and emergency situations? If not, please indicate your preferred approach and reasons.*

**Q20:** *Do you have a preference for the point at which MPOC is superseded by the gas emergency arrangements (e.g. when Phase 2 commences under NGOCP?)*

### **Proposed New Processes and Systems**

- 8.8 As the declaration of a contingency event will (effectively) suspend the ability of industry participants to make their own supply and demand decisions, it is important that the declaration process is clear. It is proposed that a more specific

process for making and communicating declarations be included in the gas emergency arrangements.

### *Role of Emergency Operator*

- 8.9 The Emergency Operator will potentially be responsible for:
- maintaining information required under the gas emergency arrangements (i.e. ensuring information is up to date and curtailment plans are in place);
  - managing communications during a contingency event, and monitoring the process; and
  - issuing directions as necessary, and consistent with the Rules.
- 8.10 In determining who would be the best person to act as the Emergency Operator under the gas emergency arrangements, factors will include:
- who is best placed to monitor the performance of the transmission systems;
  - who is best placed to manage the risks from a practical perspective;
  - whether the relevant person is (or is perceived to be by industry participants) sufficiently independent from all other industry participants (whether this is achieved by actual independence, structural separation, a 'Chinese-wall' arrangement, use of an independent emergency management advisor or otherwise); and
  - the trade-offs between any perceived issues in using an industry participant compared with the costs and risks associated with designating an independent Emergency Operator.
- 8.11 Under the current arrangements, the system operator - Vector Transmission - undertakes the role of Emergency Operator. Given the expertise and information required to make the decisions of an Emergency Operator, Gas Industry Co believes the system operator is best placed to undertake the role of Emergency Operator. Provided the parameters and constraints set out in any rules or regulations that the Emergency Operator must comply with are appropriate, many of the perceived issues with this approach can be addressed.
- 8.12 With regards to the independence issue, there needs to be consideration of achieving a balanced approach taking into account:
- whether there would be any actual (as opposed to perceived) conflict in (for example) Vector Transmission acting as the Emergency Operator when it is part of a larger business that involves gas distribution and wholesale/retail gas sales, as well as gas transmission;
  - the fact that Vector Transmission is currently the operator of both transmission pipelines and is clearly in the best position to carry out (most of) the obligations



of the Emergency Operator (and in particular will have ready access to information relating to the operation and status of the transmission network);

- whether the position would change if Vector Transmission ceased to be the operator of both transmission pipelines;
- the costs involved in engaging an independent service provider to provide this service; and
- whether any or all of these concerns may be addressed by ensuring that the rules of operation are sufficiently and clearly specified that the identity of the Emergency Operator becomes less relevant.

8.13 Gas Industry Co recommends that an Emergency Operator Function is established under any mandatory regime that clearly sets out the obligations and limitations when a party is undertaking that function. This could be Vector Transmission, or some other party in the event that were deemed appropriate, operating under the clear parameters set out in the new arrangements.

**Q21:** *Do you consider the Emergency Operator should automatically be the technical/system operator of the transmission system or an independent person? Please provide reasons for your views.*

#### *Contingency Communications Team*

8.14 The NGOCP also provides for a Contingency Communications Team (“CCT”) to be established in the situation where the contingency event has moved into Phase 3 of a National Gas Contingency or Phase B of a Regional Gas Contingency. The CCT’s role is to

- facilitate cooperation and communication during a contingency event;
- be the repository for public information and act as the centre for public and government communications during a contingency event;
- ensure information is disseminated so that responses to customers, the public and the media are consistent;
- develop cooperative media releases for stakeholders affected and establish regular media contact; and
- advise Government that a contingency event has occurred. However, affected industry participants must work directly with regional or local emergency organisations.

8.15 However, there are several potential issues which the industry needs to consider if it wishes to retain the CCT, as follows:

- given the size of the New Zealand gas market and the infrequency with which emergency or contingency situations are likely to occur, it is unlikely a full time

position/agency dedicated to the role of co-ordinator/co-ordinating entity (in particular in relation to communications) in the case of emergency or contingency situations is appropriate. However, all industry participants would need to be comfortable that the current make-up of the CCT would be appropriate when it is formed. It should also be noted that although the role of the CCT in general is appropriate, likely time constraints around an emergency or contingency situation may mean that an entity in the position of system operator is best placed to take executive action as and when required; and

- as discussed further below, the gas emergency arrangements require sharing of information relating to supply and demand (some of which may be commercially sensitive), as well as curtailment plans, from each industry participant (as relevant). Having an appropriate selection of industry representatives on the CCT would potentially make industry participants more comfortable with being required to disclose such information.

**Q22:** *Do you believe the CCT should be maintained or that the Emergency Operator, or other person, should undertake that role? Please explain your reasons.*

**Q23:** *If you wish to retain the CCT, do you believe its current make-up is appropriate?*

**Q24:** *What other changes, if any, would you make to the CCT role? Please explain your reasons.*

### *Powers of Emergency Operator*

8.16 It is proposed that the Emergency Operator will be able (and will be required) to:

- declare an emergency or contingency situation (which will trigger the application of the process set out in the gas emergency arrangements);
- give (binding) directions to industry participants;
- declare movements between phases in the processes set out in the gas emergency arrangements; and
- declare the emergency or contingency situation to be at an end (at which point the gas emergency arrangements will no longer apply and business as usual will resume).

8.17 In addition, it would seem to be appropriate for the Emergency Operator to be able to exercise a degree of flexibility in respect of some aspects of its powers (in particular, its ability to make decisions in respect of declarations of emergency or contingency situations and directions to industry participants), in order to enable the Emergency Operator to make value decisions. However, as noted above there may be trade-offs between flexibility and the identity of the Emergency Operator, in particular in respect of independence.

**Q25:** *Do you agree with the scope of the proposed powers to be given to the Emergency Operator? If not, please provide reasons.*

### *Liability of Emergency Operator*

- 8.18 In a shift to a mandatory regime, the question of liability for the Emergency Operator will need consideration. A common approach would see the Emergency Operator being liable for acting negligently, fraudulently, or with wilful recklessness, but otherwise protected against claims made by industry participants or third parties in respect of exercising its rights as Emergency Operator pursuant to the gas emergency arrangements.
- 8.19 Regardless of the exercise by the Emergency Operator of its right to direct industry participants to carry out certain acts, industry participants will still be required to operate their assets in the normal course, subject only to the obligation to comply with directions from the Emergency Operator (i.e. the Emergency Operator will not take over the actual operation of any such assets).
- 8.20 It is likely that any person acting as the Emergency Operator would require immunity against claims made by industry participants (or third parties) in relation to the valid exercise by the Emergency Operator of its powers under any gas emergency arrangements.
- 8.21 This approach seems appropriate, given that in the absence of such protection the Emergency Operator may be reluctant to exercise its powers in certain circumstances (such as where the Emergency Operator is aware such exercise will cause significant losses to one or more industry participants), which approach would be inconsistent with the need to be able to rely on the entity acting as Emergency Operator to take prompt and appropriate action during an emergency or contingency situation.
- 8.22 The Emergency Operator will be required to act where (for example) an industry participant informs the Emergency Operator of any event or circumstance which will or might reasonably be expected to give rise to an emergency or contingency situation, but otherwise will be under no obligation (but may choose) to take into account any input received from industry participants during an emergency or contingency situation (except where expressly required to do so by the gas emergency arrangements).
- 8.23 An additional consideration is whether the Emergency Operator should be remunerated on a cost-recovery basis (which may be more appropriate if the Emergency Operator is the system operator) or on a commercial basis (which would be more appropriate for an independent Emergency Operator). As noted above, it is reasonable to expect that an independent Emergency Operator would require commercially appropriate limits on its liability for performing this role unless it was remunerated to a level commensurate with the expected level of any liability which is proposed to be imposed in relation to that role.

**Q26:** *Do you agree with the proposed approach to the liability of the Emergency Operator? If not, please provide reasons.*

### *Initiation/Declaration*

- 8.24 Gas Industry Co recommends that the Emergency Operator will have the power to declare that an emergency or contingency situation has occurred, triggering the application of the gas emergency arrangements.
- 8.25 Although it is most likely that Vector Transmission will carry out this role, even if an independent Emergency Operator is appointed it may still be the actual system operator who identifies the potential emergency or contingency situation (and therefore the system operator will need to be able to communicate this effectively to the Emergency Operator). Industry participants will need to comply with directions given by the Emergency Operator, from that point.
- 8.26 As part of the declaration of an emergency or contingency situation, the NGOCP currently provides that Vector Transmission requests welded party controllers and major plant owners to take preparatory actions. It is proposed that the Emergency Operator will be able to direct these same industry participants to take such preparatory actions (including communicating essential information in relation to these preparatory actions to the Emergency Operator).
- 8.27 Although it is anticipated that all Emergency Operator directions will expire upon the cessation of an emergency or contingency situation, the gas emergency arrangements will need to make clear whether industry participants have any ongoing obligations after the cessation of that situation.

**Q27:** *Do you agree that the declaration process under the gas emergency arrangements should be more certain (as proposed)? If not, please indicate your preferred approach and reasons.*

### *Phase Shift*

- 8.28 In relation to declarations made by the Emergency Operator, it is also pertinent to consider the circumstances in which the Emergency Operator is able to move the process between phases.
- 8.29 By way of example, if the Emergency Operator considers that the line pack is likely to fall below the relevant threshold, should the Emergency Operator be able to accelerate the process to the next phase? If this is considered more broadly, should the Emergency Operator have the power to direct industry participants to take appropriate actions in anticipation of circumstance occurring? (See the discussion above in relation to secondary definitions).
- 8.30 It would seem appropriate to grant the Emergency Operator powers to direct on the basis of forecast or expected outcomes where this is likely to lead to more effective and efficient emergency management.

**Q28:** *Do you agree that the process for moving between phases is currently clear/definite? If not, please indicate any proposed changes.*

### *Line Pack Preservation*

- 8.31 The NGOCP provides for the stabilisation of line pack through a combination of:
- gas flows from alternative sources being maximised (but only in the case of a National Gas Contingency);
  - major plant (gas-fired power generators and petrochemical plants) shedding load as rapidly as possible; and
  - reticulated sector and direct supply consumer flows being curtailed, if necessary, in accordance with an agreed curtailment schedule.
- 8.32 While a mandatory arrangement will involve the Emergency Operator issuing binding instructions regarding these matters, it would be possible to design a two-stage process, under which:
- relevant industry participants are requested (as opposed to directed) by the Emergency Operator to take appropriate actions to shed loads and/or increase gas supply; and
  - if, and only if, the impact of this voluntary response is insufficient to deal with the contingency event, the Emergency Operator will then direct appropriate load shedding.
- 8.33 Gas Industry Co's initial view is that a two-stage process would not be warranted, as:
- it adds an unnecessary element of uncertainty;
  - confusion may be caused as to whether the Emergency Operator's instruction is a "request" or "binding";
  - it is likely that during an emergency or contingency situation quick actions will be required and this approach may simply slow down the Emergency Operator's response to the line pack issue and may in fact make the Emergency Operator's job more difficult; and
  - participants may be reluctant to shed load voluntarily unless it were clear that such actions would fall within any ex-post emergency pricing scheme.
- 8.34 The NGOCP provides that load shedding is to be carried out in a specified order by Vector Transmission requesting the relevant industry participant(s) to carry out the relevant actions. However, as none of the industry participants are obliged to comply with any such request under the NGOCP, it would potentially be very difficult for the Emergency Operator to manage (for example) an orderly reduction in load.

- 8.35 It is therefore proposed that the gas emergency arrangements will require industry participants to comply with (specific) directions from the Emergency Operator in order for the load shedding phase to be carried out by the Emergency Operator safely and efficiently, and in a timely manner. Similarly, there should be some visibility as to load shedding (and restoration) priorities and processes for all affected industry participants.
- 8.36 The NGOCP currently provides for release of line pack during phase 1 in accordance with the MPOC. If the gas emergency arrangements were to be mandatory, a reference to MPOC provisions (which are set, and can be varied, on a contractual basis) may not be appropriate; it may be more appropriate for the procedure for this release to be set out in the gas emergency arrangements themselves.
- 8.37 The NGOCP notes that wholesalers and gas retailers have agreed categories for curtailment of reticulated sector consumers and direct supply consumers. It is proposed that the gas emergency arrangements require details of these arrangements to be provided to the Emergency Operator, and will also require wholesalers and gas retailers to comply with curtailment directions from the Emergency Operator. Any replacement plan would need to contain appropriate provisions for revising and updating curtailment schedules.

**Q29:** *Do you agree that all industry participants (and other affected entities, such as major plant owners/operators) should be obliged to comply with directions from the Emergency Operator? If not, please provide details of reasons and any other proposed alternatives for providing certainty.*

**Q30:** *Do you consider there is any merit in a two-stage approach, with stage one allowing for voluntary response and stage two imposing binding instructions? If yes, why?*

- 8.38 The NGOCP provides for load shedding priorities and guidance, being a priority listing for the progressive reduction of flow. Without considering the question of how these priorities are set, there is an issue as to whether more detailed information should be obtained from industry participants in relation to supply, demand and the ability to shed loads (and timing issues relating to this), so that the Emergency Operator has an up to date and accurate picture of the options available to reduce demand and/or increase supply in the event of an emergency or contingency situation occurring. In Victoria, the market rules provide for a specified priority list in relation to contingency load shedding, but Vencorp is also required to keep a (confidential) list of actual consumers and consumption. It is proposed that the gas emergency arrangements will provide that the Emergency Operator has the ability to require (potentially commercially sensitive) information from industry participants in order to have this information available during a contingency event.

**Q31:** *Should the Emergency Operator be required to maintain a detailed load shedding plan? If so, should all (relevant) industry participants be required to provide detailed supply, demand and load shedding information to the Emergency Operator?*

8.39 The NGOCP refers to an 'obligation' on alternative gas suppliers to supply specification gas where practicable. It is proposed that the gas emergency arrangements will require all alternative gas suppliers to provide the Emergency Operator with information in respect of the availability of such supplies and the timeframes within which such supplies are able to be injected into the transmission system, upon request. This step may have already been taken by the system operator pursuant to the MPOC, prior to the declaration of the contingency event.

8.40 A possible alternative or refinement is for the establishment of a 'back-up/reserve' gas market, which would pay gas producers to be on 'standby' to provide supplies during an emergency or contingency situation as required by the Emergency Operator. However, Gas Industry Co's initial view is that such a market is not merited because it would not be:

- efficient, given the size of the New Zealand gas market and the (potentially low) frequency of this issue arising; and/or
- feasible or effective, given the number of producers and the practicalities of gas production in New Zealand.

**Q32:** *Do you agree with the proposed obligations in relation to alternative gas suppliers? If not, please provide reasons.*

**Q33:** *Do you agree that a back up/reserve market is not merited? If not, please provide reasons.*

### *Non-Specification Gas*

8.41 There may arise situations where the overall risk to the gas transmission network in not providing gas (even non-specification gas) is greater than the risk associated with certain non-specification gas being allowed into the transmission network. If such a situation should arise, Gas Industry Co believes that the Emergency Operator should have the ability to direct the supply of non-specification gas.

8.42 In making any such direction, the Emergency Operator must have regard to:

- the risk associated with non-specification gas;
- the individual characteristics of different types of non-specification gas; and
- which available non-specification gases (or mix of available non-specification gases) provides the least risk to the overall transmission network and to public safety given their characteristics and the prevailing and/or forecast conditions.

**Q34:** *Do you agree that the Emergency Operator should have the ability to direct the supply of non-specification gas? If not, please provide reasons.*

**Q35:** *Do you agree with the factors that an Emergency Operator must have regard to in making any such direction? If not, please provide reasons.*

**Q36:** *Are there any other factors the Emergency Operator should have regard to in making any such direction? If so, please detail those additional factors.*

### *Recovery*

8.43 The NGOCP anticipates restoring gas supplies in accordance with some broad guidelines (gas inventory entitlements; contractual entitlements; overcoming hardship; maximising utilisation of gas available). It is proposed that the gas emergency arrangements will provide that a restoration table (on a basis similar to the load shedding rules) must be implemented (which may not necessarily be an exact reversal of the load shedding rules), based on specific rules set out in the gas emergency arrangements.

**Q37:** *Do you agree with the proposed approach to restoration? If not, please provide reasons.*

**Q38:** *Do you have a view on guidelines for establishing a restoration table? Please specify.*

### *Post-Contingency*

8.44 The NGOCP anticipates that, once the transmission system has been stabilised, gas quantities will be supplied in accordance with existing contractual arrangements. This arrangement could potentially be complemented with an emergency pricing regime (see discussion below).

8.45 The NGOCP currently anticipates the parties dealing with post-contingency issues by way of co-operation and open exchange of information. It is proposed that this will be implemented in the gas emergency arrangements by way of a formal reconciliation process (which may include a determination of appropriate levels of payments/receipts between parties as discussed later).

**Q39:** *Do you agree that a post-contingency formal reconciliation process is appropriate? If not, please provide reasons.*

### *Communications*

8.46 The NGOCP provides for communications by verbal instructions, to be confirmed by fax. In addition, standard form documents are provided for the purpose of Vector Transmission updating/instructing industry participants during a contingency event. It is proposed that a clear distinction will be drawn in the gas emergency arrangements between the following communications, given that some such



communications will give rise to obligations (and potential liability) on industry participants:

- information provision/sharing by industry participants and the Emergency Operator which is non-confidential;
- information provision by industry participants to the Emergency Operator only (including in relation to load shedding and offers of supply during an emergency or contingency situation), which would be treated by the Emergency Operator as being confidential, but could potentially be disclosed to other industry participants as required in order to manage an emergency or contingency situation in the most efficient manner;
- information provided by the Emergency Operator during an emergency or contingency situation (which are not formal directions);
- formal (binding) directions by the Emergency Operator during an emergency or contingency situation (and responses by the relevant industry participants to those directions); and
- information provided by industry participants and the Emergency Operator (and/or to an independent person/body charged with making compensation determinations) for the purpose of reconciliation and compensation arrangements after the cessation of an emergency or contingency situation.

8.47 In addition, the gas emergency arrangements will require each industry participant to keep its contact details up to date, ensure that a contact point is available to receive directions and information from the Emergency Operator and maintain appropriate communication systems for the purpose of complying with the gas emergency arrangements. An obligation to maintain appropriate back-up means of communication may also be appropriate to take into account the possibility of the cause of the emergency or contingency situation affecting usual methods of communication.

**Q40:** *Do you have any comments on the proposed groups of types of communications and related obligations? Are there any other communications protocols/information flows which you consider should be taken into account as part of this review?*

8.48 The members of the CCT and of the Natural Gas Outage Planning Group are currently set out in the Appendices to the NGOCP. It is desirable for the membership of such groups to broadly represent industry participants and therefore it is proposed that the gas emergency arrangements would specify particular representative positions within each such group and how each position is appointed/determined.

### *Review, Testing and Documentation*

8.49 The NGOCP provides for:

- a post-contingency event review;
- six-monthly updates of the NGOCP;
- industry participants' training in relation to the NGOCP;
- carrying out exercises based on the NGOCP;
- three-yearly reviews of the NGOCP; and
- audits of the processes set out in the NGOCP.

8.50 Currently reviews, testing and documentation are carried out variously by the NGOCP Group, the Gas Association of New Zealand or by industry participants. Gas Industry Co proposes that it may take an oversight role in respect of each of these events or may appoint an agent or service provider, with the assistance of the emergency advisor. In each case, the relevant entity would report its findings/any issues to Gas Industry Co, for Gas Industry Co to consider whether any changes are required to the gas emergency arrangements.

8.51 The process for changing the gas emergency arrangements will depend on the form of mandatory obligations which is adopted for those arrangements. If the gas emergency arrangements are in the form of rules or regulations under the Gas Act, the process would involve a recommendation by Gas Industry Co to the Minister to make the change, whereas if they are in the form of a binding multi-lateral agreement, there would need to be appropriate contractual mechanisms for dealing with such changes.

8.52 The Appendices to the NGOCP contain various plans and related information which Gas Industry Co proposes be dealt with by way of setting broad frameworks in the gas emergency arrangements around what information is required to be kept/updated within these (these include the communications plan, communications lists and template notification documents).

**Q41:** *Do you agree with the proposed treatment of review, testing and documentation obligations under the NGOCP? If not, please provide reasons. If so, do you have any specific suggestions for how these should be dealt with?*

### *Line Pack Limits*

8.53 Under the NGOCP, the emergency line pack limit is set by Vector Transmission. It is proposed that this limit could be:

- specified in the gas emergency arrangements (which approach would be consistent with providing certainty and clarity in that plan);

- amended from time to time by the pipeline owner; or
- determined from time to time by an appropriate third party (for example, by the emergency advisor with input from industry participants).

8.54 In any case, it would be desirable for this determination to have at least some element of objectivity. Gas Industry Co would be interested in receiving feedback as to which approach would be most appropriate.

**Q42:** *Please provide any comments on how best to set line pack limits and to review these over time.*

### *Disputes and Enforcement*

8.55 Compliance with the gas emergency arrangements will have to be enforceable in an appropriate manner (and the most appropriate enforcement regime will depend on the manner in which the gas emergency arrangements are mandated).

8.56 Gas Industry Co is developing a compliance regime for new switching arrangements, this regime involves the establishment of a single-person Rulings Panel. If the gas emergency arrangements were to be mandated as rules or regulations pursuant to the Gas Act, it would be possible to extend the jurisdiction of this panel (which can be supplemented by the addition of experts) to the gas emergency arrangements.

8.57 If the gas emergency arrangements were to be mandated by way of a multi-lateral agreement, it would need to be considered whether a rules-based enforcement regime, or some other form of compliance regime, would be appropriate.

**Q43:** *Do you have views as to the appropriateness of any particular compliance regime? Please specify.*

## 9 Emergency Price Regime

### Introduction

- 9.1 Earlier this year, Gas Industry Co received a paper from Farrier-Swier Consulting on gas pricing under outage and emergency conditions. That paper reviewed a range of possible options and concluded that the most economically efficient way of dealing with this issue was to utilise a “fit for purpose” wholesale market. Farrier-Swier Consulting reasoned that such a market would reallocate gas to its most efficient use in times of scarcity.
- 9.2 The WMWG considered the Farrier-Swier Consulting paper and was uniformly of the view that:
- it would be difficult in a market as small as New Zealand to develop a “fit for purpose” wholesale gas market; and
  - even if it were possible to design and implement such a market, the lead time for doing so is such that an interim solution is required as soon as possible.
- 9.3 The second best option offered by Farrier-Swier Consulting is an ex post fair pricing determination. Under this option “Emergency gas price(s) would be determined “ex-post” based on a defined set of principles. Defined participants would be indemnified to place them on the same financial footing as they would have been before the direction. The price/compensation amounts would be determined either by the system operator, an appointed expert or an arbitrator”.
- 9.4 WMWG considered this option offered a reasonable prospect of being able to be implemented within a short period of time which gave it a practical advantage over the wholesale market option. In addition, it was considered that the ex post option could even have a useful life beyond the implementation of a “fit for purpose” wholesale market (if that option ultimately proved to be feasible) as there would likely be instances where the wholesale market did not produce acceptable outcomes. In such circumstances the ex post fair price determination offers a way to compensate for market failure.
- 9.5 This chapter sets out draft guiding principles which can be used as the starting point for detailed design of the ex post determination option.

**Q44:** *What is your view of WMWG’s comment on the Farrier-Swier Consulting recommendations?*

**Q45:** *Do you agree the ex post fair price determination is a suitable model for developing emergency pricing? If not, please provide a description of your preferred approach to emergency pricing.*

## Generic Contingency Scenarios

- 9.6 Although there are a great many possible emergency or contingency situations that one can postulate, they will generally fall into a limited number of generic possibilities. This section attempts to categorise these with a view to identifying who would pay whom under what circumstances and for what volumes.
- 9.7 It is appropriate to establish a set of criteria or principles that would assist to identify situations where parties should be liable to pay for gas taken under an emergency or contingency situation (and other parties should receive payment for gas foregone in the same circumstances).

### *Emergency Pricing Principles and Outcomes*

- 9.8 The following are suggested as a series of principles to be applied:
- defining the circumstances in which the process applies;
  - how the framework adjusts for different physical situations, e.g. field outage vs. pipeline failure;
  - parties being required to mitigate their losses in the first instance;
  - caps and floors to prevent unmanageable financial risks and provide a lower threshold of financial “harm” to ensure that benefits outweigh process costs;
  - whether it is fundamentally a “causer pays” system, i.e. those in negative imbalance are liable for payments, or whether there needs to be an insurance pool;
  - maintaining pressure to the mass market – depressurisation of an urban distribution network as a result of a contingency would have serious consequences. If this were to happen in, say, Auckland or Wellington it is estimated that it would take some months to restore all customers to the network; and
  - gas should be allocated to its most efficient use.
- 9.9 The following outcomes are sought:
- keeping implementation and operation costs as low as possible;
  - transparency, i.e. the process is clear and the decisions are readily understood by all concerned;
  - there be a clear means of enforcing decisions (whether by contract, rules, etc);
  - how to ensure parties comply with requirements to engage in the process (e.g. obligations to provide information, etc);

- safety and pipeline integrity – it is a given that gas safety is of paramount concern and that pipeline system integrity is a core component of that; and
  - title-tracking – systematic way to identify who has received what gas and from which sources.
- 9.10 Using the lists above, together with hypothetical emergency or contingency situations, we can begin to develop a set of guidelines which can be used to determine the circumstances in which the ex-post determination option would be applied.

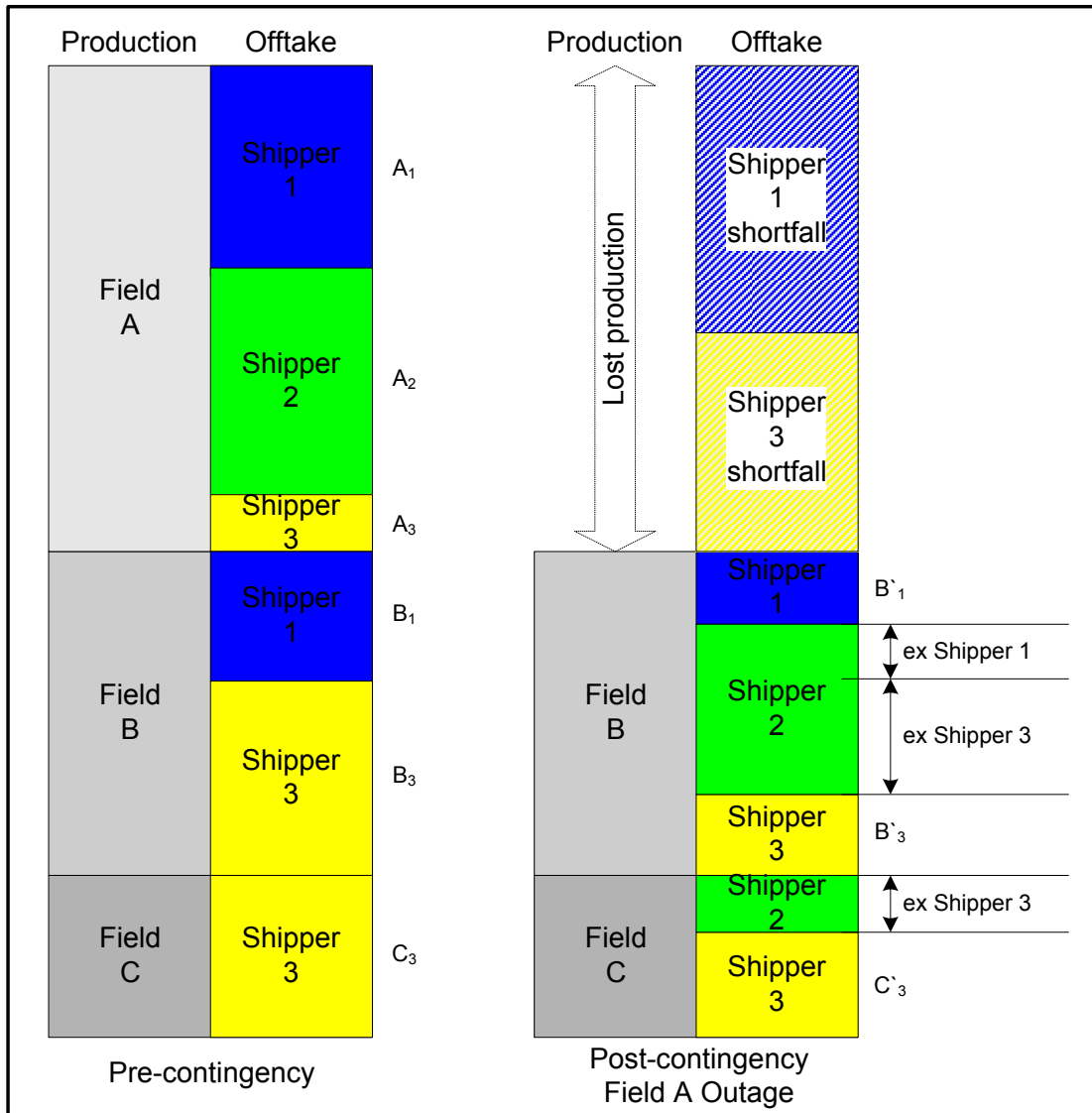
**Q46:** *Do you agree these are a comprehensive set of principles and objectives? If not please provide your augmentable list(s) and reasoning.*

### Example Emergency or Contingency Situations

- 9.11 There are three broad categories into which emergency or contingency situations may be grouped:
- failure of a major field;
  - failure of a small field (or partial failure of a larger field); and
  - interruption of a transmission pipeline.

#### *Failure by a Major Field*

- 9.12 The diagram overleaf shows a hypothetical situation for flows pre- and post-onset of a contingency assuming that production from a major field (“A”) is lost and that, post-stabilisation, load has been curtailed sufficiently to match the lost production.
- 9.13 In the stabilised state, the customers of Field A are affected in different ways:
- shipper 2 serves customers who all fall into classes which have not been directed to curtail load;
  - shipper 1, who has arranged supply from Fields A and B, has a preponderance of customers (or own load) in those groups which are the subject of early curtailment directives; and
  - shipper 3, who has arranged the vast majority of supply from Fields B and C, is similarly affected in that its customers are curtailed out of all proportion to the supplies arranged from the failed field.



- 9.14 The net effect of the curtailment arrangements in this hypothetical example is that Shipper 1 and Shipper 3, who have both arranged supplies from multiple fields, bear the brunt of curtailment and experience shortfalls in excess of their respective contracted entitlements to Field A. By contrast, Shipper 2 experiences no shortfall whatsoever.
- 9.15 Now consider the contractual obligations of the various parties as outlined in the following table. In the case of Field A each of the parties is liable for contracted deliveries until the time of field failure. After that point in time it is assumed that no further liability accrues as Field A is no longer supplying.

| Party     | Counter-party | Amount liable for | Paid for but not received |
|-----------|---------------|-------------------|---------------------------|
| Shipper 1 | Field A       | A1 / 0            | 0                         |
| Shipper 2 | Field A       | A2 / 0            | 0                         |
| Shipper 3 | Field A       | A3 / 0            | 0                         |
| Shipper 1 | Field B       | B1                | B1 – B`1                  |
| Shipper 3 | Field B       | B3                | B3 – B`3                  |
| Shipper 3 | Field C       | C3                | C3 – C`3                  |

9.16 However, Fields B and C continue to inject at the same rates as they were pre-contingency. Thus Shippers 1 and 3 are each liable for B1 and (B3 + C3) respectively. However, as noted in the right-hand column, Shippers 1 and 3 are not actually receiving the amounts they are contractually obliged to pay for – the difference is being taken by Shipper 2 who has no contractual relationship with Fields B or C or with Shippers 1 and 3.

9.17 Although this example is somewhat extreme it nevertheless serves to illustrate the problem that exists when the application of a curtailment schedule cuts across the pre-existing commercial relationships. Moreover, the above table only considers the arrangements between suppliers and shippers, it does not take into account the mismatch that has been created and the risk that Shipper 1 or 3 is cashed out of its mismatch position at an unfavourable price.

#### *Small Field Failure*

9.18 In most cases the failure of a small field will exhibit the same effects as failure of a large field and have the same commercial consequences. As such, the proposed ex-post fair price determination will be involved.

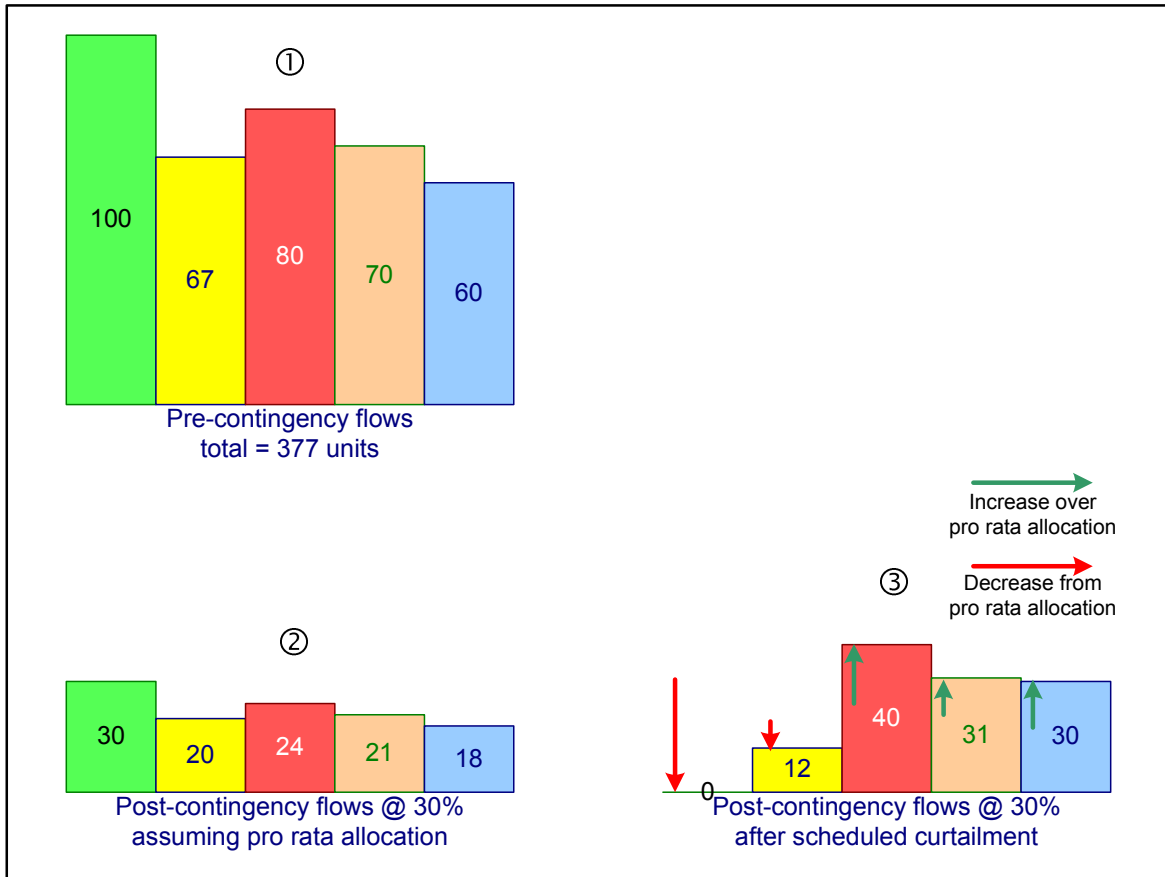
9.19 However, where a small field has one dedicated customer (or customers) that could be switched off from the network should that small field fail, there would be no basis to invoke ex-post price determination as no shipper has been supplied gas that under normal circumstances would have been supplied to another shipper.

9.20 Accordingly, where a small field fails the ex-post fair price determination compensation regime may not always be required.

#### *Transmission Pipeline Failure*

9.21 The following diagram is a stylised representation of outcomes following interruption of supply due to a pipeline rupture. In this instance, it is assumed that there is only sufficient gas available in the system to support 30% of the pre-contingency flows.





9.22 The bar chart labelled 1 in the diagram shows the flows occurring prior to the event. The chart labelled 2 shows the flows that would occur, after stabilisation if each of the shippers continued to take gas in strict proportion with their respective pre-contingency flows.

9.23 It might be argued that chart 2 depicts an equitable sharing of the burden of the contingency. Supply has been reduced by 70% and each shipper's load is reduced in the same proportion. Such an across the board reduction takes no account of the difficulty or ease with which different shippers, or their customers, may reduce load. Thus, although this pro rata allocation may initially appear to be "fair", it takes no account of the facts that:

- there is a range of safety and pipeline integrity issues which must take precedence over both willingness to pay and any notions of fairness;
- end users may value the gas differently and may, therefore, be willing to pay a premium to secure gas in such circumstances;
- other end users may be able to defer their need for gas and, therefore, might be willing to give up access to gas for a period for little or no reward;
- the logistics of contingency management are such that the ability to direct load curtailment will tend to focus on large, easily controlled loads; and

- curtailing mass market customers is difficult for a variety of reasons:
  - they may share a distribution network with essential service providers such as hospitals;
  - control of individual mass market customers is logistically difficult, time-consuming and costly; and
  - there are significant costs in restoring supply to a mass market network that has been de-pressurised (as well as there being time and resource problems associated with actually doing this).

9.24 Thus, in practice the curtailment schedule will result in an outcome different from that depicted in chart 2.

9.25 Chart 3 shows the actual flows after the onset of the contingency situation and after instructions to curtail load have been acted upon. This shows a situation where the “green” shipper has been totally curtailed, i.e. is 30 units below a pro rata share of the available flows after onset of the emergency or contingency situation. By contrast, “red” is receiving 40 units, effectively a 16 unit increase over a pro rata allocation.

9.26 In simple terms, those parties whose load curtailment has reduced their off take below a pro rata allocation may be thought of as foregoing the opportunity to sell (or use) the relevant quantity of gas. Similarly, those who effectively receive a greater than pro rata share of the post-contingency flows may be thought of as receiving a preferential access to security of supply.

9.27 The field failure examples showed situations where parties who had contracted for gas supplies could find themselves unable to take the contracted quantities due to the need to comply with curtailment instructions – effectively being in the position of having a liability to pay for the gas but being unable to take it. The foregone gas in such instances would be taken by another party who, in a contractual sense, was not entitled to it. In principle, there is a clear prospect of identifying who the “winners” and “losers” are in these circumstances.

9.28 However, a transmission pipeline failure poses a somewhat different set of issues to the previous two examples. In this instance, all of the gas being delivered is sourced from the remaining line pack in the pipeline which will be a mix of inventory maintained by the pipeline together with any gas “parked” by shippers.

**Q47:** *What is your view of the line pack being notionally allocated across shippers in proportion with their nominations? If you disagree, what would be your preferred approach and why?*

## Identification of Emergency Pricing Issues

9.29 There are a number of fundamental issues which need to be addressed in formalising the pricing component of any gas emergency arrangements. These include:

- the basis for determining “emergency” prices:
  - for example, the UK uses buy and sell prices obtained from the On-the-day Commodity Market on the day of the emergency to provide emergency cash-out prices for users with negative and positive daily imbalances respectively;
  - again using the UK as an example, emergency curtailments give rise to a curtailment trade between Transco and each curtailed user. These are settled at the 30-day average of the system average price;
  - if market prices prior to the time of suspension are considered appropriate then there is a challenge in that New Zealand does not currently have a formal trading market from which these prices can be obtained and, therefore, some proxy is required for this in the meantime; and
  - alternatives exist, these include shippers providing two-way emergency prices, some form of expert determination, and the use of pipeline imbalance charges;
- identifying and allocating the gas flows during the period of the emergency or contingency situation:
  - there will likely be boundary issues relating to when curtailment instructions are issued and different circumstances will apply depending on whether an instruction from the “Operator” is given during emergency or contingency situations or not (hence the importance of the distinction between the roles of System Operator and Emergency Operator even though they may be the same entity); and
  - similarly, title tracking processes will need to address the requirement to measure and allocate flows during the period of an emergency or contingency situation; and
- identification of shippers’ positions immediately prior to the declaration of any emergency or contingency situation:
  - consideration needs to be given to whether shippers who are short/long gas should pay/receive some cash-out price reflecting their position; and
  - the potential for interaction between shippers’ positions and any curtailment instructions issued to them needs to be handled in the pricing arrangements to ensure the right incentives apply.

**Q48:** *In the absence of a transparent, short-term market for gas in New Zealand, what is your view of using an independent expert to set emergency prices ex post?*

**Q49:** *If you disagree with the use of an independent expert, what should be used as the basis for determining emergency gas prices and how is this superior?*

### Ex Post Fair Pricing Framework

- 9.30 A key objective of the emergency pricing arrangements is to provide industry participants with incentives to arrange their affairs in an efficient manner consistent with the levels of security and reliability demanded by their customers. It is considered that this will be best achieved by ensuring parties are faced with prices for gas under emergency or contingency situations or, as is proposed, for there to be an ex post arrangement such that all parties know they will face those prices for gas taken/foregone.
- 9.31 It is presupposed that a mandatory arrangement is in force such that parties follow directions from the Emergency Operator (or, in the case of those who do not comply, are subject to some compliance and enforcement regime). Thus, the starting point for the ex post fair price determination is that there are a number of parties who are in mismatch positions either by virtue of normal operations or directions given by the Emergency Operator.
- 9.32 Another issue to be considered is the application of an ex-post fair price determination framework in the case of transmission pipeline failure. As mentioned earlier, when there is a transmission interruption there is a somewhat different supply/demand relationship insofar as everyone who has not been curtailed is sourcing their gas from the remaining inventory. This raises at least two options:
- taking the position that none of the shippers has any particular rights to the line pack, the curtailment schedule is applied and no “compensation” is payable; or
  - all parties could receive a notional allocation (pro rata with their nominations) of the quantities that continue to be delivered and, to the extent that curtailment causes deviations from those notional allocations, the ex-post compensation arrangements operate to “settle” those deviations between the participants.
- 9.33 The shortcomings of the current voluntary scheme stem from the lack of an emergency pricing scheme. This suggests that any emergency pricing arrangement needs to apply as uniformly as possible to all classes of emergency or contingency situation irrespective of the physical cause.

**Q50:** *In the event of a pipeline interruption, how do you view the pro rata allocation of line pack among shippers as a means of consistently applying the emergency pricing framework? If you disagree, what alternative arrangement would you suggest and why?*

9.34 It should also be noted that this pricing framework is not an insurance scheme. All payments will be between counterparties.

**Q51:** *Do you agree that for an emergency pricing framework to operate in a low-cost manner it will be essential for the overall emergency plan to be a mandatory arrangement (irrespective of whether that is implemented by rules, regulations or a multilateral contract)?*

9.35 The procedural steps are set out below.

- Parties are encouraged to settle their mismatch positions in the first instance by finding offsetting parties with whom to trade. This process could be facilitated by a simple bulletin board system. If the pricing methodology of the independent expert is both transparent and prescriptive then it can be expected that parties can predict such a price reasonably closely and settle without the transaction costs involved in traversing the ex post fair pricing framework.
- Parties who are unable or unwilling to settle their positions by trading among themselves are required to apply for an ex post fair price determination. It is necessary to require that this be done so as to ensure that the process can match parties with offsetting positions. Parties who have foregone gas would be required to:
  - identify the emergency direction that led directly to the financial loss for which they are seeking “compensation”;
  - quantify the direct loss, including the price paid for the gas foregone;
  - outline the steps they have taken to mitigate the loss; and
  - supply any other material in support of their claim including information for the independent expert to take into account when determining the fair price for the event.
- Parties who had received gas to which they were not contractually entitled would need to provide sufficient information so that their physical position could be determined. That information would be used later in the process, together with the emergency price as determined by the “expert”, to quantify the extent of their financial liability.
- Applications are vetted and those falling below a de-minimis threshold are rejected. The purpose of this is to limit applications to those where the quantum of payment/receipt justifies the time and costs of the process.
- A cut-off date is set and communicated to all relevant parties (including those who were given curtailment instructions in relation to a specific event). The reason for this is that one emergency price will be set for each contingency

event so as to ensure that payments and receipts match and that the system is seen to be fair.

- In the interests of keeping the costs of the process as low as possible it is suggested that the price-setting be undertaken as a desktop study by the independent expert. However, Gas Industry Co acknowledges that there may be a preference by some parties to be able to present their evidence in person.
- Using the guiding principles, supplemented by information from shippers, the independent expert derives a fair price for the event. A report is released specifying the price and the reasons behind the determination.
- In order to keep the process costs to a minimum it is recommended that there either be no opportunity to appeal the expert determination or, if that is considered too restrictive, the ability to appeal be restricted to very specific circumstances.
- Once the price for the event is determined it would be a straightforward administrative matter to identify the amounts each party needs to pay or receive.
- Settlement is likely to be most easily administered by using a third party as a clearing house (e.g. an accounting firm). The alternative would require matching offsetting counterparties and that runs the risk of unfair outcomes in the event that one or more of the paying parties defaults.
- Once all monies owing had been received, the settling agent would then be in a position to settle with those parties requiring payment. In the event that the settling agent was unable to collect all monies owed then the payments to receiving parties would be reduced pro rata.

9.36 The Farrier-Swier Consulting paper recommended that there be upper limits on the emergency mismatch price. The upper limit on price is to ensure that the emergency pricing scheme does not undermine industry stability or ongoing viability.

**Q52:** *What is your view of requiring parties to endeavour to settle their positions in the first instance by trading among themselves?*

**Q53:** *Do you agree that there should be a limit below which parties are not able to enter the emergency pricing framework?*

**Q54:** *What is your view of the price determination process? Do you agree that using a desktop study is the best approach?*

**Q55:** *Please provide any other comments on the procedural steps.*

## Determining Body

- 9.37 Irrespective of the way in which the mandatory scheme is implemented, it is envisaged that a determining body would provide expert determination of “fair price” during an emergency or contingency situation.
- 9.38 As emergency or contingency situations are of a relatively low frequency it is not expected that this determining body would be invoked very often. That being the case, it is important to ensure that the costs involved in any such expert determination are kept to a minimum and that any ongoing costs for retaining the ability to invoke the determining body are also kept as low as possible.
- 9.39 As noted earlier, costs can be reduced by not considering claims below a minimum threshold and also requiring all parties to use reasonable endeavours to settle among themselves.
- 9.40 A further way to keep costs to a minimum is for the processes and procedures of the determining body to be quite prescriptive. Such an approach will make the outcomes relatively predictable, thereby incentivise parties to settle matters between themselves (within the band of expected outcomes should the matter escalate to the determining body).
- 9.41 This could be undertaken by the Rulings Panel which will already have such processes and procedures in place, or alternatively this role could be undertaken by an independent pricing expert. In addition, the Rulings Panel may co-opt the assistance of lay experts (including pricing experts or accountants). Therefore, Gas Industry Co’s preliminary view is the most streamlined and efficient approach would utilise the Rulings Panel as the determining body.

**Q56:** *What is your view of the appropriate body to undertake the role of determining emergency pricing whilst keeping the costs to a minimum?*

## 10 Other matters

### Scope

- 10.1 The NGOCP envisages national or significant regional emergency or contingency situations upstream of distribution networks only (e.g. the transmission network or supply failures). Gas Industry Co does not consider that the scope of gas emergency arrangements should be expanded to include emergency or contingency situations within distribution networks, on the basis that individual distribution system operators will be responsible for managing contingency events which arise in relation to their networks only. However, if any event affecting a distribution network causes (or has the potential to cause) an adverse effect on the operation of the transmission network, this will trigger the operation of the NGOCP.
- 10.2 If the gas emergency arrangements are to be mandated in the form of rules or regulations under the Gas Act, the process set out in those rules or regulations will take precedence over any existing industry arrangements, including (for example) the Gas Industry Mutual Aid Plan (which is specifically referenced in the NGOCP) and the MPOC. This is essential in order to provide certainty as to the scope of each industry participant's obligations.



## 11 Preferred Approach

11.1 Having considered all the issues set out in this Discussion Paper, Gas Industry Co's preferred approach to meeting the GPS objectives for gas emergency arrangements is to develop regulations for recommendation to the Minister of Energy under the Gas Act which will, broadly:

- make emergency arrangements mandatory;
- provide certainty regarding the roles of industry participants and their obligations and liabilities;
- provide clarity of the processes during emergency or contingency situations;
- establish an Emergency Operator role with clear parameters and limitations; and
- establish an emergency pricing regime.

### Next Steps

11.2 Gas Industry Co will consider the responses received from the industry and will then give further thought to policy options and delivery mechanisms in relation to the issues canvassed in this Discussion Paper and any further issues raised in the submissions.

11.3 If it is decided to further develop mandatory gas emergency arrangements, the next major task is drafting those arrangements.

11.4 In the event that regulations are the appropriate delivery mechanism then Gas Industry Co will issue a statement of proposal under section 43 of the Gas Act for consultation with the industry prior to making any recommendation to the Minister of Energy.

## Appendix A: Recommended Format for Comments

To assist the Gas Industry Co in the orderly and efficient consideration of stakeholders' responses, a suggested format for comments has been prepared. This is drawn from the questions posed throughout the body of this Discussion Paper.

Respondents are also free to include other material in their responses.

| Questions  | Comments |
|--|----------|
| Q1 Do you agree that mechanisms to implement arrangements for emergency or contingency situations must be mandatory? If not, please explain.   |          |
| Q2 Do you agree Gas Industry Co has identified the most likely alternatives for mechanisms to implement arrangements for emergency or contingency situations? If not, please provide details of any other likely alternative mechanisms. |          |
| Q3 Do you agree with Gas Industry Co's analysis of a Pan-Industry Agreement as a mechanism to implement arrangements for emergency or contingency situations? If not, please explain.  |          |
| Q4 Do you agree with Gas Industry Co's analysis of rules or regulations as a mechanism to implement arrangements for emergency or contingency situations? If not, please explain.  |          |
| Q5 Do you believe the gas emergency arrangements are most appropriately implemented by rules or regulations recommended to the Minister of Energy? If not, please explain..  |          |

| Questions  | Comments |
|--|----------|
| Q6 Do you agree with Gas Industry Co's analysis of the framework design for emergency management arrangements? If not, please explain.   |          |
| Q7 Are there any other principles you believe should be included? If so, please provide details of those additional principles.  |          |
| Q8 Do you agree with Gas Industry Co's approach? If not, please explain.   |          |
| Q9 Do you agree that the gas emergency arrangements should be progressed now, rather than waiting for completion of the wholesale market review? If not, please explain.   |          |
| Q10 Do you agree that the current definition of "Gas Contingency" should be amended? If not, please provide reasons.   |          |
| Q11 If you agree that the definition should be amended:<br>(a) do you agree that an 'effects-based' decision is most appropriate?<br>(b) do you have any suggestion as to a basic operational minimum level to underpin the definition?<br>(c) what, if any, degree of discretion should there be to determine that a Gas Contingency has occurred?<br>(d) how would you define "Gas Contingency"? |          |
| Q12 Do you consider there should be a separate definition for regional and national contingencies, or some other split? If yes, please indicate how and why (including draft definitions)  |          |

| Questions  | Comments |
|--|----------|
| <p>Q13 Do you agree that the current definition of "Transmission System" should be amended? If not, please provide reasons. If yes, please provide a draft definition.</p>   |          |
| <p>Q14 Do you agree that the current definition of "NGC Transmission" should be replaced with a more generic definition of "System Operator" (or similar) as proposed? If not, please provide reasons.</p>                               |          |
| <p>Q15 Do you agree with the scope of the proposed obligations to be imposed upon industry participants? If not, please provide reasons.</p>   |          |
| <p>Q16 What, if any, other carve-outs to the proposed obligations of industry participants do you believe are necessary?</p>   |          |
| <p>Q17 Do you agree with the proposed approach to the liability of industry participants? If not, please provide reasons.</p>  |          |
| <p>Q18 Is Gas Industry Co's belief that the proposed gas emergency arrangements will not require significant additional processes and systems to be developed correct? If not, please explain.</p>                                       |          |
| <p>Q19 Do you agree that any gas emergency arrangements should be consistent with the processes set out in the MPOC in respect of contingency and emergency situations? If not, please indicate your preferred approach and reasons.</p> |          |

| Questions   | Comments |
|---|----------|
| <p>Q20 Do you have a preference for the point at which MPOC is superseded by the gas emergency arrangements (e.g. when Phase 2 commences under NGOCP?)</p>  |          |
| <p>Q21 Do you consider the Emergency Operator should automatically be the technical/system operator of the transmission system or an independent person? Please provide reasons for your views.</p> |          |
| <p>Q22 Do you believe the CCT should be maintained or that the Emergency Operator, or other person, should undertake that role? Please explain your reasons.</p>                                    |          |
| <p>Q23 If you wish to retain the CCT, do you believe its current make-up is appropriate?</p>  |          |
| <p>Q24 What other changes, if any, would you make to the CCT role? Please explain your reasons.</p>   |          |
| <p>Q25 Do you agree with the scope of the proposed powers to be given to the Emergency Operator? If not, please provide reasons.</p>  |          |
| <p>Q26 Do you agree with the proposed approach to the liability of the Emergency Operator? If not, please provide reasons.</p>  |          |
| <p>Q27 Do you agree that the declaration process under the gas emergency arrangements should be more certain (as proposed)? If not, please indicate your preferred approach and reasons.</p>        |          |

| Questions   | Comments |
|---|----------|
| Q28 Do you agree that the process for moving between phases is currently clear/definite? If not, please indicate any proposed changes.  |          |
| Q29 Do you agree that all industry participants (and other affected entities, such as major plant owners/operators) should be obliged to comply with directions from the Emergency Operator? If not, please provide details of reasons and any other proposed alternatives for providing certainty. |          |
| Q30 Do you consider there is any merit in a two-stage approach, with stage one allowing for voluntary response and stage two imposing binding instructions? If yes, why?  |          |
| Q31 Should the Emergency Operator be required to maintain a detailed load shedding plan? If so, should all (relevant) industry participants be required to provide detailed supply, demand and load shedding information to the Emergency Operator?   |          |
| Q32 Do you agree with the proposed obligations in relation to alternative gas suppliers? If not, please provide reasons.  |          |
| Q33 Do you agree that a back up/reserve market is not merited? If not, please provide reasons.  |          |
| Q34 Do you agree that the Emergency Operator should have the ability to direct the supply of non-specification gas? If not, please provide reasons.   |          |

| Questions  | Comments |
|--|----------|
| Q35 Do you agree with the factors that an Emergency Operator must have regard to in making any such direction? If not, please provide reasons.   |          |
| Q36 Are there any other factors the Emergency Operator should have regard to in making any such direction? If so, please detail those additional factors.  |          |
| Q37 Do you agree with the proposed approach to restoration? If not, please provide reasons.  |          |
| Q38 Do you have a view on guidelines for establishing a restoration table? Please specify.   |          |
| Q39 Do you agree that a post-contingency formal reconciliation process is appropriate? If not, please provide reasons.   |          |
| Q40 Do you have any comments on the proposed groups of types of communications and related obligations? Are there any other communications protocols/information flows which you consider should be taken into account as part of this review? |          |
| Q41 Do you agree with the proposed treatment of review, testing and documentation obligations under the NGOCP? If not, please provide reasons. If so, do you have any specific suggestions for how these should be dealt with?                 |          |
| Q42 Please provide any comments on how best to set line pack limits and to review these over time.   |          |

| Questions  | Comments |
|--|----------|
| Q43 Do you have views as to the appropriateness of any particular compliance regime? Please specify.   |          |
| Q44 What is your view of WMWG's comment on the Farrier-Swier Consulting recommendations?   |          |
| Q45 Do you agree the ex post fair price determination is a suitable model for developing emergency pricing? If not, please provide a description of your preferred approach to emergency pricing.  |          |
| Q46 Do you agree these are a comprehensive set of principles and objectives? If not please provide your augmentable list(s) and reasoning.   |          |
| Q47 What is your view of the line pack being notionally allocated across shippers in proportion with their nominations? If you disagree, what would be your preferred approach and why?  |          |
| Q48 In the absence of a transparent, short-term market for gas in New Zealand, what is your view of using an independent expert to set emergency prices ex post?   |          |
| Q49 If you disagree with the use of an independent expert, what should be used as the basis for determining emergency gas prices and how is this superior?   |          |
| Q50 In the event of a pipeline interruption, how do you view the pro rata allocation of line pack among shippers as a means of consistently applying the emergency pricing framework? If you disagree, what alternative arrangement would you suggest and why? |          |



| Questions   | Comments |
|---|----------|
| <p>Q51 Do you agree that for an emergency pricing framework to operate in a low-cost manner it will be essential for the overall emergency plan to be a mandatory arrangement (irrespective of whether that is implemented by rules, regulations or a multilateral contract)?</p> |          |
| <p>Q52 What is your view of requiring parties to endeavour to settle their positions in the first instance by trading among themselves?</p>   |          |
| <p>Q53 Do you agree that there should be a limit below which parties are not able to enter the emergency pricing framework?</p>   |          |
| <p>Q54 What is your view of the price determination process? Do you agree that using a desktop study is the best approach?</p>  |          |
| <p>Q55 Please provide any other comments on the procedural steps.</p>   |          |
| <p>Q56 What is your view of the appropriate body to undertake the role of determining emergency pricing whilst keeping the costs to a minimum?</p>  |          |