

# **Regulatory Impact Statement**

## **Amendments to gas critical contingency management system and gas compliance regime**

### **Agency Disclosure Statement**

- 1 This Regulatory Impact Statement (RIS) has been prepared by the Ministry of Business, Innovation and Employment. It provides an analysis of options to improve the management of critical gas supply outages.
- 2 The options in this RIS are constrained by: statutory requirements on the Minister of Energy and Resources when considering recommendations for regulations from the gas co-regulatory industry body; and a practical requirement that options should not lead to inconsistencies between different regulations. The analysis is entirely based on analysis undertaken by the industry body. The industry body's analysis assumes that the social costs of curtailing certain gas consumers significantly outweigh the costs of curtailing others, without attempting to quantify those costs. We are comfortable that these assumptions are sound.

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## **Status quo and problem definition**

- 3 The following section outlines:
  - a. the legal constraints on the Minister's decisions
  - b. the existing gas regulatory regimes being considered
  - c. the problems with these regimes and recommended solutions from the gas industry body.
- 4 The downstream gas market operates under a co-regulatory model between the Minister of Energy and Resources and an industry body, as laid out in the Gas Act 1992. Gas Industry Co (**GIC**) is the approved industry body under the Act. GIC may make statutory recommendations to the Minister for regulation of certain aspects of the industry.
- 5 GIC has made statutory recommendations to the Minister. The Minister's decisions regarding these recommendations are constrained by the Gas Act. The industry body's recommendations and the constraints on the Minister thus form part of the status quo.

### ***Legal constraints on Minister's decisions***

- 6 GIC has made two recommendations to the Minister:
  - a. Recommendation to the Minister of Energy and Resources to amend the Gas Governance (Critical Contingency Management) Regulations 2008<sup>1</sup> (**CCM Regulations**)
  - b. Recommendation to the Minister of Energy and Resources to amend the Gas Governance (Compliance) Regulations 2008<sup>2</sup> (**Compliance Regulations**).
- 7 Under the Act the Minister is required to either accept or reject the recommendation to amend the CCM Regulations in its entirety within 90 days<sup>3</sup>. Further, the Act requires that amendments to the CCM Regulations must only implement the effect of a recommendation from GIC and may not differ from that recommendation in any material way<sup>4</sup>.
- 8 The Minister may accept, amend, or reject GIC's recommendation for amendments to the Compliance Regulations, but must have regard to the recommendation that GIC has made.<sup>5</sup> However, the interrelationship between the two recommendations places further practical constraints on the Minister's options, as will be described under the Regulatory Impact Analysis section below.

### ***The existing gas critical contingency management system and gas compliance regime***

- 9 An unmanaged disruption to the gas supply through a transmission pipeline could result in gas distribution pipelines pressures falling below operational thresholds, allowing air to get into pipeline systems. The purging and re-pressurising of pipelines to domestic gas consumers following such an event would take many months and would be extremely costly.

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<sup>1</sup>[http://gasindustry.co.nz/sites/default/files/u254/recommendation\\_to\\_the\\_minister\\_of\\_energy\\_and\\_resources\\_to\\_amend\\_the\\_gas\\_governance\\_critical\\_contingency\\_management\\_regulations\\_2008\\_w\\_appendix\\_a\\_187078.pdf](http://gasindustry.co.nz/sites/default/files/u254/recommendation_to_the_minister_of_energy_and_resources_to_amend_the_gas_governance_critical_contingency_management_regulations_2008_w_appendix_a_187078.pdf)

<sup>2</sup>[http://gasindustry.co.nz/sites/default/files/u254/recommendation\\_to\\_the\\_minister\\_to\\_amend\\_the\\_compliance\\_regulations\\_-\\_final\\_-\\_july\\_2013\\_186716.1.pdf](http://gasindustry.co.nz/sites/default/files/u254/recommendation_to_the_minister_to_amend_the_compliance_regulations_-_final_-_july_2013_186716.1.pdf)

<sup>3</sup> Section 43ZP

<sup>4</sup> Section 43J

<sup>5</sup> Section 43M

- 10 There already exists a gas critical contingency management system that is designed to avoid this scenario by reducing gas demand quickly to buy time for the supply disruption to be remedied before pipeline pressure falls below operational thresholds. A secondary objective of the system is to prioritise supply to consumers for whom curtailment would result in significant social costs. However, all gas consumers, except for domestic consumers, may ultimately be required to curtail their demand during a critical contingency.
- 11 The contingency system is defined by the CCM Regulations. Amongst other things, the CCM Regulations provide for:
  - a. a Critical Contingency Operator (**CCO**) which is tasked with managing critical contingencies, principally via powers to require certain consumers to curtail demand
  - b. curtailment bands which classify non-domestic consumers into groups and which define the order in which the CCO will curtail those groups
  - c. certain consumers to apply for a designation that allows them to defer their curtailment and consume a small amount of gas if doing so would avoid serious damage to plant or to the environment.
- 12 There are eight curtailment bands which classify consumers primarily according to their average annual consumption. The CCO will successively curtail enough bands to ensure pipeline pressure is maintained. This generally means that large consumers are curtailed first which is the most operationally efficient way to stabilise pipeline pressure.
- 13 The October 2011 Maui Pipeline rupture was the first major test of the CCM Regulations. GIC subsequently undertook a comprehensive review of the regulations. The review found that the regulations are fundamentally sound, but that amendments could be made to improve the performance of the critical contingency system.
- 14 The Compliance Regulations provide for compliance and dispute resolution processes for a number of gas governance regulations and rules, including the CCM Regulations.

***Problems with critical contingency management system and GIC's recommended solutions***

- 15 The table below summarises the substantive problems with the critical contingency system that GIC uncovered through the review of the Maui contingency. The recommended solutions from GIC for fixing those problems are also summarised, which, given the statutory status of these recommendations, form part of the status quo.

Category		Policy problem	GIC's statutorily recommended solution
The order of gas supply curtailment	CCM recommendation	The likelihood of curtailment of consumers for whom curtailment would result in significant social costs can be further minimised.	Create a new band for Critical Care Providers <sup>6</sup> so that they are the last to be curtailed.  Decrease the likelihood of curtailment of Essential Service Providers <sup>7</sup> by tightening the inclusion criteria, and by further prioritising them relative to medium sized industrial and commercial consumers.
		Certain consumers for whom immediate curtailment would result in unexpectedly high costs cannot apply to defer curtailment.	Expand the criteria for deferred curtailment consumers and allow smaller consumers to apply. Also allow certain electricity generators to apply if deferring curtailment would ensure the security of the electricity network.
		There is a potential disincentive for large consumers to invest in alternative fuel resilience.	Remove the prioritisation of medium sized commercial and industrial consumers that have alternative fuel capacity over those that do not have it.
Roles, planning and information flow	CCM recommendation	During the first 36 hours of the Maui outage neither the CCO nor the pipeline owner issued any public information to assist gas market participants' management of the gas supply disruption.	Require CCOs and owners of failed assets to provide a minimum set of information at regular intervals during a critical contingency.
		Transmission system owners did not convey CCO directions sufficiently quickly to retailers and consumers during the Maui contingency.	Require owners of transmission pipelines to relay CCO notices to retailers and consumers within 30 minutes of receiving them.
		If Vector (which operates the entire transmission system) does not win the new CCO contract in December 2013, the new CCO will have insufficient information to prepare for and manage a contingency.	Provide the CCO with power to require transmission system owners, gas producers, and large consumers to provide sufficient information.

<sup>6</sup> Critical Care Providers are consumers for whom curtailment could be unsafe (hospitals; hospices; residential care providers; prisons; specialised medical services; and laundry services for these consumers).

<sup>7</sup> The definition of "Essential Service Provider" here is the one under the proposed changes: consumers for whom curtailment would have immediate public health and safety implications (emergency services, biohazard treatment plants, and municipal drinking water processors).

Category	Contained within:	Policy problem	GIC's statutorily recommended solution
		Insufficient planning by retailers resulted in delays in curtailment and system inefficiencies during the Maui outage.	Require retailers to prepare curtailment plans and periodically notify consumers of their right to apply for deferred curtailment status.
		Reconfiguration of the transmission network can improve the management of a contingency, but the CCO does not have power to direct reconfiguration.	Provide the CCO power to reconfigure the transmission network during a critical contingency.
		In extreme critical contingencies, curtailing all bands may be insufficient to maintain pipeline pressure.	Provide the CCO with power to require retailers to make calls for public conservation as a last resort.
Compliance	CCM recommendation & Compliance recommendation	A lack of clarity in the Compliance Regulations results in a potential disincentive for consumers to comply with curtailment directions.	Move penalty provisions for consumers from the Compliance Regulations to the CCM Regulations.
		There is a potential disincentive for employees to provide for worker health and safety.	Only provide for a health and safety defence for situations where a health and safety threat could not have reasonably been foreseen.

***Problem with reporting of immaterial breaches & GIC's recommended solution***

16 Within the Compliance Regulations recommendation, GIC has also recommended that a standalone problem related to the reporting of immaterial breaches of gas governance rules be fixed. The problem and GIC's recommended solution is summarised below.

Category		Policy problem	GIC's statutorily recommended solution
Immaterial breaches	Contained within: Compliance recommendation	In 2012, gas governance service providers were required to report around 2700 insignificant breaches of certain gas governance rules, resulting in an estimated compliance cost to industry of \$70,000.	Introduce a threshold regime so that service providers are not required to report insignificant breaches to the Market Administrator of certain gas governance rules. The rules that the threshold regime would apply to would be set in a schedule to the Compliance Regulations, and GIC would issue determinations setting the actual thresholds for those rules.

## Objectives

17 Under the Gas Act, in making the two recommendations to the Minister for amendments to regulations, GIC is required to:

- a. have regard to the objectives in the Government Policy Statement on Gas Governance 2008 (GPS)<sup>8</sup>, and the objectives contained in the Gas Act for the case of the CCM Regulations recommendation<sup>9</sup>
- b. undertake a cost-benefit analysis of all reasonably practicable options for achieving the regulatory objective<sup>10</sup>
- c. prepare and consult on a statement of proposal containing the cost-benefit analysis<sup>11</sup>.

18 Besides being satisfied that GIC has followed this process, there are no other requirements under the Gas Act on the Minister in deciding whether to accept or reject the CCM Regulations recommendation, or whether to accept, amend, or reject the Compliance Regulations recommendation. As such, we base the objectives for assessing the Minister's options on the processes that GIC is required to follow:

- a. the Gas Act and GPS objectives are met
- b. GIC's cost-benefit analysis demonstrates that net benefits are achieved
- c. consultation feedback is taken into account.

## Options

### ***Critical contingency management system***

19 We have established above that:

- a. the Minister is required to either accept or reject the recommendation to amend the CCM Regulations in its entirety
- b. the Minister must have regard to the recommendation that GIC has made to amend the Compliance Regulations.

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<sup>8</sup> Section 43ZO

<sup>9</sup> Section 43ZN

<sup>10</sup> Section 43N

<sup>11</sup> Section 43L

- 20 A further practical constraint on the options available to the Minister is that two of the main recommended amendments to the Compliance Regulations are interrelated with the CCM recommendation. The result is that accepting those two compliance options while rejecting the CCM recommendation (and vice versa) would result in inconsistencies between the two sets of regulations.
- 21 The above considerations thus constrain the set of options available to the Minister related to the critical contingency system to those in the table below. The assessment of these options is also summarised in the table (more detail is provided further below).

		OPTIONS	
		Accept entire CCM recommendation and related compliance recommendations	Reject entire CCM recommendation and related compliance recommendations (maintain status quo)
OBJECTIVES	Gas Act and GPS objectives met	Best meets. Amendments improve alignment of critical contingency system with objectives.	Meets. Existing critical contingency system meets objectives.
	Net benefits are achieved	Best meets. We are confident that GIC's cost-benefit analysis demonstrates that recommendations would result in net benefits.	Does not meet. Accepting status quo does not change benefits (or costs).
	Takes consultation feedback into account	Best meets. GIC has taken account of feedback in its recommendations.	Does not meet. Accepting status quo does not take account of broad support for GIC's recommended amendments.
ASSESSMENT		<b>Meets objectives best</b>	<b>Meets objectives worst</b>

***Immaterial breach reporting***

- 22 The Minister is still free to accept, amend, or reject the standalone compliance recommendation relating to the introduction of a breach threshold regime. We narrow these options further below.

## Regulatory impact analysis for critical contingency management system

### ***Which option ensures that the Gas Act and GPS objectives are best met?***

23 GIC explicitly derived its evaluation criteria for its CCM Regulations options assessment<sup>12</sup> from the relevant Gas Act and GPS objectives. We are satisfied that GIC's analysis demonstrates that the package of recommended amendments meets the relevant Gas Act and GPS objectives better than the status quo.

### ***Which option results in highest net benefits?***

#### *The order of gas supply curtailment*

24 An NZIER economic analysis commissioned by GIC<sup>13</sup> shows that, in general, the smaller the consumer, the more benefit they derive from each unit of gas they consume.<sup>14</sup> Thus, on a purely economic basis, and assuming no exceptions to this generalisation, curtailing in order of size of consumer will result in the highest net benefit. As described above, curtailing in this order is also operationally efficient. GIC's recommendations relating to the order of gas supply curtailment aim to take account of deviations from these assumptions.

25 GIC's analysis regarding the prioritisation of consumers for whom curtailment would result in significant social costs implicitly assumes that the social cost of curtailing supply to such consumers (vulnerable populations in particular) significantly outweighs the economic cost of curtailing other consumers (food producers in particular)<sup>15</sup>. While GIC has not attempted to quantify these social costs, we are comfortable with GIC's assumptions, and the associated recommendations to prioritise such consumers. We are also satisfied that GIC's analysis demonstrates that its recommendations will improve operational efficiency.

26 Providing for more consumers to apply ex-ante for an allowance to defer curtailment acknowledges that these consumers may face an excessively high cost from having to curtail immediately.<sup>16</sup> Again, GIC has not attempted to quantify the costs of immediate curtailment for these consumers, relying on the assumption that the costs of immediate curtailment for certain industrial processes outweigh the costs of curtailment of other consumers.<sup>17</sup> GIC has also demonstrated that the cost of any resulting operational inefficiency would be minor given the CCO effectively has discretion to disallow any deferred curtailment if it deems it necessary to maintain pipeline pressures.

27 Thus, we are broadly comfortable that GIC's analysis demonstrates that its recommendations regarding the order of gas supply curtailment result in higher net benefits than the status quo. GIC's underlying assumptions regarding the relative costs of curtailment for different groups of consumers is sound, and we are confident that their recommendations would improve the operational efficiency of the critical contingency system.

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<sup>12</sup> p.11 of [http://gasindustry.co.nz/sites/default/files/consultations/254/statement\\_of\\_proposal\\_-\\_amendments\\_to\\_the\\_gas\\_governance\\_critical\\_contingency\\_management\\_regulations\\_2008\\_179870.1\\_2.pdf](http://gasindustry.co.nz/sites/default/files/consultations/254/statement_of_proposal_-_amendments_to_the_gas_governance_critical_contingency_management_regulations_2008_179870.1_2.pdf)

<sup>13</sup> *Value added associated with gas demand*

[http://gasindustry.co.nz/sites/default/files/consultations/254/2012\\_october\\_-\\_nzier\\_-\\_value\\_added\\_associated\\_with\\_gas\\_demand\\_final.pdf](http://gasindustry.co.nz/sites/default/files/consultations/254/2012_october_-_nzier_-_value_added_associated_with_gas_demand_final.pdf)

<sup>14</sup> p.26 footnote 12.

<sup>15</sup> pp.33-50 footnote 12.

<sup>16</sup> For example, immediate curtailment during the processing of metals in some smelters can result in costly damage to plant.

<sup>17</sup> pp.33-50 footnote 12.



### *Roles, planning, and information flow*

28 The benefit of GIC's recommendations relating to roles, planning and information is the improved efficiency of the critical contingency system. These recommendations have come directly from lessons learnt in analysing how the system operated under the status quo during the Maui outage. We are satisfied that the added compliance cost for industry<sup>18</sup> for the majority of the recommendations would be insignificant, either because the required action is extremely minor, or because the affected participant will already be taking similar action<sup>19</sup>. We are also satisfied that the compliance cost on retailers from requiring them to initiate a public conservation campaign is significantly outweighed by the cost of pipeline depressurisation, and that in any case the probability of the CCO initiating this last-resort measure is very small. Thus we are confident that this set of recommendations would result in higher net benefits than the status quo.

### ***Which option best takes account of consultation feedback?***

29 In preparing its recommendation to the Minister of Energy and Resources for amendments to the CCM Regulations, GIC undertook an extensive consultation process that included:

- a. commissioning Concept Consulting Group to undertake a comprehensive review, including stakeholder interviews, to identify the issues and lessons from the Maui outage
- b. issuing the review for consultation and publishing an analysis of submissions
- c. holding a series of meetings with large end users and the Major Gas Users Group to discuss their concerns
- d. holding a workshop on improvements to communications
- e. consulting on a statement of proposal that described the proposed changes to the CCM Regulations and publishing an analysis of submissions<sup>20</sup>
- f. holding a workshop on the statement of proposal
- g. circulating draft amended CCM Regulations to stakeholders and holding two drafting workshops.

30 Of note was the opposition by food producers and suppliers to the proposal by GIC to tighten the inclusion criteria for "Essential Service Provider" so as to exclude food producers. Fonterra argued that the adverse environmental effects of disposing of milk into waterways and the economic cost of "drying-off" cows justify giving dairy processing plant some priority. NZ Sugar and the New Zealand Food and Grocery Council argued that food production should be prioritised because food is essential for human life, and food shortages can quickly lead to civil unrest.

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<sup>18</sup> Industry in this context means gas retailers, distributors, producers, pipeline owners, gas governance service providers, and large consumers.

<sup>19</sup> For example, reconfiguration of the network during a contingency occurred during the Maui outage, and the provision of information to the CCO prior to an outage already occurs, since Vector as the pipeline operator has the commercial ability to ensure that it does. The recommended changes "future-proofs" the CCO role by ensuring that a new CCO can similarly ensure that such actions occur.

<sup>20</sup> This consultation was notified to over 220 stakeholders known to GIC covering approximately 100 organisations, and was also publicised through notices in the daily papers.

- 31 GIC noted in response that dairy processors and dairy farmers must manage their own risks to business continuity and that it is not appropriate to mitigate these risks via the critical contingency management system. There are options available to dairy farmers for on-farm milk disposal that ensure that cows would not need to be dried-off during disruptions, and farmers are best placed to determine which options are appropriate for them. We note that dairy processors would likely satisfy the criteria that would, under some scenarios, allow them to defer curtailment for a short time to finalise the processing of milk that is already at their plant (but not allow them to process any more milk from farms).
- 32 GIC also noted that gas outages are unlikely to have an effect on the vast majority of food products so that food security and civil unrest are not relevant considerations.
- 33 Also of note is the introduction by GIC of an allowance for deferred curtailment for certain electricity generators. This issue was brought to GIC's attention during the early stages of the consultation process.
- 34 We consider that GIC has properly taken consultation feedback into account and that the feedback has materially improved the proposals contained in its recommendations.<sup>21</sup> Submissions were broadly supportive of the vast majority of GIC's recommendations, with opposition generally focussing on specific proposals that adversely affected the submitter. Thus we consider that the recommended package of recommendations takes consultation feedback into account better than the status quo.

### **Regulatory impact analysis for immaterial breach reporting**

- 35 The Gas Act requires GIC to assess all reasonably practicable options for solving the immaterial breach reporting problem before making a recommendation to the Minister. While the Minister is free to amend GIC's recommendation, we are satisfied that GIC has assessed all reasonably practicable options, so that there are no reasonably practicable amendments that the Minister could make to GIC's options. Thus we consider that the Minister should simply assess whether GIC's recommended option meets the above-stated objectives better than GIC's other options.

#### ***Which option ensures that GPS objectives are best met?***

- 36 The relevant GPS objective is: "*gas governance arrangements are supported by appropriate compliance and dispute resolution processes*". We are satisfied that GIC's analysis<sup>22</sup> demonstrates that, in the context of the identified problem, the recommended threshold regime meets the relevant GPS objective better than the other options that GIC considered.

#### ***Which option results in highest net benefits?***

- 37 GIC has estimated that the proposed threshold regime would reduce the number of immaterial breach reports of certain gas governance rules by 88 percent, and reduce compliance costs to industry by \$70,000 per annum. GIC has noted that there is a risk that the threshold regime could be gamed by industry. This risk would be mitigated by GIC monitoring "compliance creep". If GIC detected any gaming, it would be able to issue a determination to revoke the threshold without having to actually amend the regulations. We are satisfied that GIC's recommendation for the threshold regime results in the highest net benefit relative to the other options it considered.

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<sup>21</sup> For example, see statement of proposal submissions analysis:  
[http://gasindustry.co.nz/sites/default/files/u254/ccm\\_analysis\\_of\\_submissions\\_on\\_the\\_nov\\_2012\\_sop\\_18\\_4899.6\\_1.pdf](http://gasindustry.co.nz/sites/default/files/u254/ccm_analysis_of_submissions_on_the_nov_2012_sop_18_4899.6_1.pdf)

<sup>22</sup> pp. 13-18 of  
[http://gasindustry.co.nz/sites/default/files/u254/sopamendments\\_to\\_the\\_gas\\_governance\\_compliance\\_regulations\\_2008\\_175545.4.pdf](http://gasindustry.co.nz/sites/default/files/u254/sopamendments_to_the_gas_governance_compliance_regulations_2008_175545.4.pdf)

### ***Which option best takes account of consultation feedback?***

38 GIC issued a statement of proposal on the threshold regime in May 2012.<sup>23</sup> Submissions received were broadly supportive, though there were some questions about the details of how the regime would operate in practice. This prompted GIC to issue a document with further details of the proposal. Given the broad support for the threshold regime, we consider that GIC's recommendation takes account of consultation feedback better than any other option that it considered.

## **Conclusions and Recommendations**

39 We recommend that the Minister accepts both: the recommendations from GIC relating to the critical contingency management system; and the recommendation from GIC for a breach threshold regime.

## **Implementation**

40 Changes to the critical contingency system will be implemented through amendments to the existing CCM Regulations and Compliance Regulations. A nine month transitional period will apply to allow consumers to apply for new designations within the curtailment bands, and make alternative arrangements. Retailers will be required to communicate with customers about their rights to apply for deferred curtailment statuses.

41 The Minister of Energy and Resources may make a press release regarding the changes to the critical contingency management system.

42 There is a risk that small consumers without time-of-use meters will not comply with CCO curtailment directions because it would be difficult to gather evidence that they had not complied. These consumers make up a relatively small fraction of total gas demand so that non-compliance by some of them will have a relatively minor impact on pipeline integrity.

43 There is also a risk that the existing maximum \$20,000 fine for non-compliance will not be a sufficient disincentive for large consumers to curtail demand. GIC has recommended that the Gas Act be amended to increase this penalty. MBIE will consider this recommendation when changes to the Gas Act are considered in the future.

44 The thresholds of the threshold regime will be consulted on and then implemented by GIC through its existing relationships with gas governance service providers.

## **Monitoring, Evaluation and Review**

45 The CCM Regulations require the CCO to conduct exercises annually to test, amongst other things, that transmission system owners' critical contingency management plans: are compliant with the CCM Regulations; and give effect to the purpose of those regulations. Each transmission system owner must then report to the CCO on whether its plan meets the test criteria and then make appropriate changes.

46 The CCM Regulations require GIC to review the performance of the CCO annually. They also require GIC, via a technical expert, to review transmission system owners' critical contingency management plans, and recommend that changes be made as required.

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[http://gasindustry.co.nz/sites/default/files/u254/sopamendments\\_to\\_the\\_gas\\_governance\\_compliance\\_regulations\\_2008\\_175545.4.pdf](http://gasindustry.co.nz/sites/default/files/u254/sopamendments_to_the_gas_governance_compliance_regulations_2008_175545.4.pdf)

47 Finally, the CCM Regulations require the CCO to produce a performance report within 30 days of a critical contingency, assessing, amongst other things, the effectiveness of transmission system owners' management plans and the CCM Regulations. The CCO must identify any improvements that can be made.