CBA to accompany GIC's Statement of Proposal for gas production and storage outage information disclosure

Response to submitters

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Executive summary

We have reviewed the submissions that discuss our cost benefit analysis of information disclosure in the gas industry (CBA). We have revisited our approach to the counterfactual for the CBA and our application of Treasury's advice.

The way we characterised the factual (a regulated scheme) and the counterfactual (the voluntary scheme) may have left the impression that we think the regulated scheme will work perfectly compared to the likelihood that the voluntary scheme will fail. That is not the case. A regulated scheme will come with imperfections and economic costs.

We appreciate that some of the parties to the voluntary Code will adhere to its provisions as if it were regulated. We recognise the importance of the incentive created by parties wanting to maintain a social license to operate and the reputational risk of non-compliance. However, we stand by our observation that as long as it is possible for one or more parties to trade off the consequences of non-compliance against the merit of non-compliance with no other penalties the counterfactual remains as per our original advice.

In this review we have responded to the criticism of our original assessment by applying a law and economics approach to a regulated scheme versus a voluntary scheme. We rely on the assessment of costs and benefits in our original analysis but now add this different approach. This test asks whether one information disclosure regime would get closer to the goal of information being disclosed on the basis that the economic benefits of doing so exceed the economic costs of disclosure than the other. We remain of the view that the proposed regulated regime would get closer to that objective than the current voluntary scheme.

1. Background

1.1 Original work

We developed a CBA to accompany the GIC's draft Statement of Proposal for gas production and storage outage information disclosure which was released in December. To recap, we divided our assessment between the two regimes into the following categories:

- Efficient decision-making including outage coordination notably in both gas and electricity markets
- Impact on prices (gas and electricity)
- Effectiveness of the regime's reliability
- Whether one regime or another would lead to greater market participation and
- Signalling maturity in market design.

We found:

a) There are significant net benefits in both the gas and electricity markets from the move to the regulated regime compared to the counterfactual
b) Those benefits accrue to a wide range of interested parties which informs the assessment of who is best placed to govern arrangements with the information providers
c) In this case the position we took is that some form of collective process for specifying, monitoring and enforcing information disclosure is likely to achieve the most benefit as possible
d) A better information disclosure regime would provide benefits relative a poorer performing information disclosure regime, where better is defined as moving closer to the goal of information being disclosed on the basis that the economic benefits of doing so exceed the economic costs of disclosure
e) The proposed regulated regime would get closer to the objective in (d) than a voluntary regime

Submissions

GIC received submissions on this paper in March.[1] We have been asked to respond to the submissions where our work is referenced.

Some submissions questioned our definition of the counterfactual and approach with some dismissing our CBA completely. For example we received these summaries of the usefulness of our work:

- "should not be relied upon"
- "is useless"
- "is too blunt to allow a useful comparison"

[1] See https://www.gasindustry.co.nz/work-programmes/gas-sector-information-disclosure/consultation-2/

Behind these conclusions lies several distinct arguments:

- More than one option to the voluntary Code should have been considered
- The Code could be reviewed and amended before jumping to the regulatory solution
- The Gas Act directs the sector to resort to voluntary mechanisms in the first instance. The inference is that a change from the current arrangement should include a different or modified voluntary version before jumping to the regulatory solution
- Producers would adhere to the voluntary Code on the basis of their need to uphold their Societal licence to operate, the strongly held sense that they need to be seen as a responsible partner and reputational consequence if information disclosure failed
- It is claimed that to date the voluntary Code has worked and that some of the parties have gone beyond the requirements of the code in response to market tension.

None of these comments tests our assessment that the regulated scheme will be likely to achieve more economic benefits over the economic costs of disclosure than the current voluntary arrangement.

1.2 Our original brief

For this note we have reviewed our original paper, the brief for that paper and the submissions that refer to our work. We were not asked to design new Code or review the performance of the Code to date. We were asked to provide a CBA for a regulatory solution to the information disclosure of planned and unplanned outages.

Effectively we were asked to consider the merits of a regulated scheme which required us to establish the counterfactual. We quoted Treasury who say:[2]

> The 'counterfactual' is the situation that would exist if the intervention does not go ahead. The counterfactual needs to be realistic.

One submitter observed

> Treasury's advice has been mis-interpreted and the wrong counterfactual has been analysed.

We do not see that we have misinterpreted Treasury's advice but concede that we may have mischaracterised the factual and the counterfactual. We may have left the impression that we think the regulated scheme will work perfectly while the voluntary scheme is inherently flawed. Both schemes deliver benefits and both schemes come with imperfections and economic costs. In this note we have used a law and economics approach so that the comparison between the two schemes and our conclusion is clearer.

[2] NZ Treasury, *CBAx Tool User Guidance, Guide for departments and agencies using Treasury's CBAx tool for cost benefit analysis,* September 2018

2. Analysis

2.1 Revisiting our approach to a CBA

The way we framed the factual and counterfactual could be interpreted as comparing an arrangement that will inevitably fail with a perfect alternative in the form of the proposed regulated regime. Our comparison was, in our minds, which of two imperfect arrangements would be better (with 'better' meaning closer to the objective of information being disclosed on the basis that the economic benefits of doing so exceed the economic costs of disclosure.)

The Upstream gas outage information disclosure Code consultation in 2020 notes:

> Upstream gas producers (Producers) made submissions on the Options Paper, including through the Petroleum Exploration and Production Association of New Zealand Inc. The core of their submissions was that:
>
> - they agreed that information about upstream gas outages is important for a well-functioning gas market;
> - they wished to develop a voluntary, industry-led disclosure framework in relation to both planned and unplanned outage information to ensure consistent and timely information disclosure to all interested parties; and
> - they do not believe the case has been made for more widespread regulatory intervention.

We conducted a CBA for a regulated information disclosure regime. A CBA requires a factual scenario and a counterfactual. The factual is a regulated regime. A regulated regime would have certain attributes that would contribute to its effectiveness when compared to the counterfactual. These include:

- Independent monitoring for compliance i.e. conducted by the regulator or at the regulator's direction
- An independent enforcement regime operating i.e. conducted by the regulator or at the regulator's direction
- Penalties for non-compliance set out in the Code
- Ability for affected parties, i.e. other than the parties to the voluntary Code, to raise issues with an independent monitoring and enforcement regime
- Ability for affected parties, i.e. other than the parties to the voluntary Code, to contribute to any evolution of the information disclosure Code.

We had to determine a counterfactual and we considered the current regime. We had already noted there are points of vulnerability with the mechanism in place:

- It is voluntary.
- Posts made under the voluntary code are not consistent. Even though there are templates included in the Code, these are not necessarily adhered to
- There is no effective compliance regime.

- Incentives for compliance are weak.
- Scheme reviewers have limited ability to access underlying data.

2.2 A law and economics approach

Introduction

For this note a "law and economics" approach to better explain the thinking behind our original paper. A 'law and economics' approach assesses which method is likely to have the highest net economic benefit (lowest net cost) between the options under consideration.

The branch of economics referred to as 'law and economics' or alternatively the economic analysis of law, applies microeconomic theory to predict the effects of rules and to assess which forms of rules are economically efficient. Modern law and economics dates from about 1960, when Ronald Coase (who later received a Nobel Prize) published "The Problem of Social Cost" (Coase, 1960).[3] Gordon Tullock and Friedrich Hayek also wrote in the area, but the expansion of the field began with Gary Becker's 1968 paper on crime (Becker also received a Nobel Prize) (Becker, 1968). For a general introduction, available online, to the now extensive literature see Friedman, David D. Law's Order: An Economic Account (Friedman, 2000).

Analysis

The analytical approach set out here takes as given the decision to disclose upstream outage information; that is, it does not assess whether there are net benefits or costs to disclosing information. The focus is on the efficiency of the means of disclosing that information—whether a regulated approach or a voluntary scheme is likely to result in the highest net economic benefit (lowest net cost).

The alternative schemes being considered here would likely differ in establishing rights over the following elements of an information disclosure regime:

- specification of variables in question
- monitoring or measuring compliance with what is specified
- enforcement, or assuring compliance, with what is specified.

Economic theory would predict that the highest economic benefit would be obtained when the rights over each of these elements are allocated to a party with a comparative advantage in relation to that right. A "party" in this context might be the GIC or an upstream entity. A party's comparative advantage would be determined from the:

- information available to the party exercising the right.
- incentives faced by the party exercising the right.
- respective capabilities and expertise of the party in exercising the right.

[3] This key article in law and economics is the origin of the famous Coase theorem.

The analytical power of assessing each party's comparative advantage in exercising rights over each element is evident when viewed in the negative; a good outcome would not be expected if the rights over a particular element of the information disclosure regime were allocated to a party with poor information, distorted incentives, and no relevant expertise.

In assessing the comparative advantage of each party in exercising a right over each element, it is probable that different parties may have different comparative advantages. An efficient rule might therefore require:

- balancing the advantages and disadvantages of allocating a right to particular party (e.g., a party with the best information may have poor incentives, etc), and/or
- allocating rights over different elements to different parties (e.g., in private contracts, enforcement ultimately rests with the Courts rather than the parties to the contract).

As the Court example illustrates, sometimes a third party may have a comparative advantage over one or more elements. However, the involvement of a third-party results in an agency relationship, which in turn gives rise to principal-agent costs—that is, the costs incurred in ensuring the agent acts as the principal intended plus any remaining divergence. These principal-agent costs must be weighed against the comparative advantage of that third party in exercising a right over one or more elements of the information disclosure regime.

Hence, the design of an efficient information disclosure regime would:

- minimise the basic problems of information, incentives, and capability (i.e., assign rights to the party with the comparative advantage)
- only use agency relationships when advantages outweigh agency costs
- explicitly recognise any agency relationships and carefully manage the incentives of those relationships.

In Table 1 we look at the comparative advantage of the two comparator schemes for the key elements of an information disclosure regime. The assessments made in this table are a distillation of the comprehensive costs and benefits we reported in our original paper. Before completing the table we checked the status of:

- evolution of the voluntary Code
- The penalty regime under the Code

Each is discussed in the following sections.

Evolution of the Code

Upstream parties undertook consultation on the voluntary Code. [4]

The Code includes a review process that is meant to occur 12 months after the Code comes into force and on a two yearly basis thereafter. The Code review process says that that reviews will "provide an opportunity for wider energy sector feedback on the operation of this Code". There is some ability for parties who are not signatories to the Code to provide feedback on the operation of the Code, but the decision on any changes to the Code rests with upstream parties. The findings of the review would also be made available to GIC.

We have received no advice that the 12-month review is underway or planned.

Compliance under a regulated Code

There are three existing sets of gas governance rules or regulations that are subject to the compliance process under the Gas Governance (Compliance) Regulations 2008.

The GIC Statement of Proposal proposed that a regulated information disclosure regime would also be subject to the process in the Compliance Regulations.

A Market Administrator, Investigator and Rulings Panel are appointed under the Compliance Regulations to undertake a range of functions in relation to alleged breaches of gas governance rules and regulations as follows:

1. The Market Administrator receives breach notices, refers allegations that raise material issues to the Investigator and where appropriate, attempts to achieve a resolution on allegations which do not raise material issues. The Market Administrator function is currently being performed by Gas Industry Co.
2. The Investigator investigates the facts surrounding all alleged breaches notified to him/her, and endeavours to settle every alleged breach.
3. The Rulings Panel has jurisdiction to approve or reject settlements provided by the Investigator. The Rulings Panel also determines alleged breaches which the Investigator has been unable to settle. The Rulings Panel has the power to impose orders on industry participants, including:
    a. issuing private and public warnings
    b. ordering an industry participant to pay compensation to another person
    c. ordering an industry participant to pay a civil pecuniary penalty
    d. recommending changes to regulations or rules

In relation to point 3 c. above, the current maximum civil pecuniary penalty that the Rulings Panel may order is $20,000. However, the Gas (Information Disclosure and Penalties) Amendment Bill (currently

[4] See the following release from Energy Resources Aotearoa (formerly PEPANZ): https://www.energyresources.org.nz/publications/submissions/upstream-outage-information-disclosure-code/

at its second reading) proposes to increase the civil pecuniary penalty that the Rulings Panel may order to a maximum of $200,000.

None of these provisions apply to the voluntary Code so the protection they offer affected parties is absent.

Table 1 Assessing comparative advantage

		Information available to the party exercising the right.	**Incentives faced by the party exercising the right.**	**Respective capabilities and expertise of the party in exercising the right.**
Specification of information to be disclosed	Voluntary Code	The parties to the voluntary code have good knowledge of what information is available and what would benefit them. They may be less knowledgeable of what information would benefit downstream entities	Strong incentive to specify information of benefit to voluntary code parties relative to cost of supplying that information. Weak incentives to specify information that benefits wider market	Only the parties know what the planned and unplanned outages are
	Regulated approach	Reliant on information from the parties. Possibly have more insight into on how the information is used	Required to weigh the costs and benefits of information disclosure on all affected parties. Incentive to over specify information as do not bear the cost.	Reliant on information from the parties but may be more knowledgeable of what information would benefit downstream parties
Monitoring whether information is disclosed	Voluntary Code	The individual parties have the ability to self-monitor but not so clear they can monitor the other parties.	Driven by risk of reputational damage to ensure compliance with the scheme is monitored.	Only able to self-monitor to see if information is available when it is most needed.
	Regulated approach	Only able to monitor after the fact which may be too late to ensure benefits are achieved.	Represent all affected parties and are motivated to carry out monitoring	Only able to enforce release of information after the fact.
Enforcing compliance with disclosure requirements	Voluntary Code	The individual parties have the ability to test self compliance but not the other parties.	Individual parties driven by risk of reputational damage to ensure all of the parties are complaint.	It is not clear the parties have the ability to enforce the rule on all parties.
	Regulated approach	The regulator has the capability to enforce compliance after the fact.	Represent the interests of all parties and not just the parties to the multilateral contract	This is one of the GIC's roles and they have the capability to enforce compliance?

Assessment

Summary of analysis:

- Specification of information to be disclosed: A regulator is more likely to see that the disclosed information reflects the benefits to the wider market. The voluntary mechanism does not necessarily have the incentive to be sure that the defined information disclosure represents the interests of all affected parties.
- Monitoring of whether information is released: A regulator may not be able to tell if the information being released is fulsome according to the Rules. In a voluntary scheme the individual parties are better able to determine that compliant information is being released but may not have the same ability to monitor the other parties' compliance
- Compliance with disclosure requirements: The regulator has a strong incentive, a mandate and the capability to enforce compliance. The voluntary parties do not appear to have any enforcement regime. …

Hence, we conclude that the regulated regime is likely to be closer to the goal of information being disclosed where the economic benefits of doing so exceed the economic costs of disclosure, than the voluntary regime. Because the regulated regime would be closer to this objective, it would provide more of the benefits of information disclosure set out in our original report

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