



CROSS SUBMISSION

Part 4 Input Methodologies Review 2023

Process and Issues paper

Draft Framework Paper



First Gas Limited
10 August 2022

Executive Summary

First Gas Limited (Firstgas) welcomes the opportunity to provide this cross submission on the Commerce Commission's 2023 Input Methodologies (IMs) review, and its recently published Process and Issues and Decision-Making Framework papers.

Accelerated depreciation

Accelerated depreciation was raised by several submitters as a key priority for the 2023 IMs review – and we agree. The recent gas 2022 Default Price-Quality Path (DPP) reset evaluated accelerated depreciation in some detail. Further evidence and analysis will help to refine the approach adopted.

We recommend that the Commission should adopt a logical, transparent, and evidence-based process to further investigate this issue.

Hydrogen regulation

The need for regulation of hydrogen transportation services was raised in one submission. There are two avenues for determining whether hydrogen transmission services should be regulated and if so, how: a *Commerce Act 1986* Section 52G inquiry; or through a policy process undertaken by Government.

In our view, this is not a priority issue to resolve in this IMs review. There is uncertainty about the market context affecting the extent of any market power held by hydrogen transporters, and it will be some time before material amounts of hydrogen are injected into pipelines.

Cross subsidisation

Concerns about cross subsidies in our pricing methodology was identified by one submitter.

We consider this is also a low priority issue. In the short-term, regulation of our pricing methodology should continue by way of Information Disclosure and not be considered as part of this IMs review.

Interconnection quality standards

One submission proposed that an 'Interconnection quality standard' should be introduced that requires GPBs to maintain the quality of supply of services, ensuring shippers haven an ongoing ability to use gas pipelines.

This is a low priority issue that is best addressed by the Gas Industry Company (GIC) or Government. Complex questions and stakeholder interests will need to be considered in any long-term transition towards an increased role for renewable gases such as hydrogen, and reduction and possible phasing out of natural gas.

Service standards

As renewable gases grow in importance, so do important questions over service standards and the technical and other regulation that governs how those gases flow through pipelines.

However, we consider that issues these fall outside of the scope of the IMs review and are better suited to review by other bodies, such as the Ministry Business, Innovation, and Employment (MBIE) and Standards NZ.

Cost of capital

A wide range of cost of capital related issues have been raise by stakeholders, including asset beta estimation, forecasting inflation and financeability.

We agree these are important issues that clearly full within the scope of the IMs review.

Total expenditure (totex)

Several stakeholders identified the benefits of shifting to a totex approach.

We believe that this is a high priority issue that should be considered in this IMs review, particularly given the rapid changes in energy sector dynamics.

Table of Contents

1. Introduction.....	4
2. Issues prioritisation and forums for review.....	5
3. Accelerated depreciation.....	7
4. Renewable gases.....	9
5. Cost of capital issues	15
6. Totex	18

1. Introduction

First Gas Limited (Firstgas) welcomes the opportunity to make this cross submission in response to submissions made on the Issues Paper¹ and Draft Framework paper² as part of the Commerce Commission's 2023 Input Methodologies review (IMs review).

We are making this submission on behalf of our gas transmission business (GTB) and gas distribution business (GDB). The discussion of an issue applies to both our GTB and GDB unless stated otherwise. Nothing in this submission is confidential.

1.1. Approach

We reviewed the gas sector focused submissions and other submissions focused on cost of capital, expenditure, and other matters common across sectors. After identifying the main themes and significant new issues raised, we formed positions on each, assessed the appropriate forums for review and the priority that we believe should be given to each issue.

We have turned our mind to issues that we believe need to be addressed before 2030 (when the next IMs review will take place). Where appropriate, we have set out suggestions on how the Commission should take forward the priority issues that we consider should form part of the IMs review.

1.2. Structure of this submission

This submission is structured as follows:

- **Section 2** summarises our views on how various issues related to the gas IMs should be prioritised and what forum they should be explored within
- **Section 3** discusses the overall approach and how stakeholder engagement could be undertaken when considering accelerated depreciation
- **Section 4** discusses issues related to renewable gases: the importance context provided by the development of the Gas Transition Plan; pricing methodology and cross subsidisation concerns; long-term access to pipeline services and whether an 'Interconnection quality standard' is required; and a number of service standard issues.
- **Section 5** briefly considers cost of capital issues raised by stakeholders.
- **Section 6** considers the issue of applying a 'totex' approach suggested by stakeholders.

1.3. Contact details

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¹ Part 4 Input Methodologies Review 2023 – Process and Issues paper.

² Part 4 Input Methodologies Review 2023 – Draft Framework Paper.

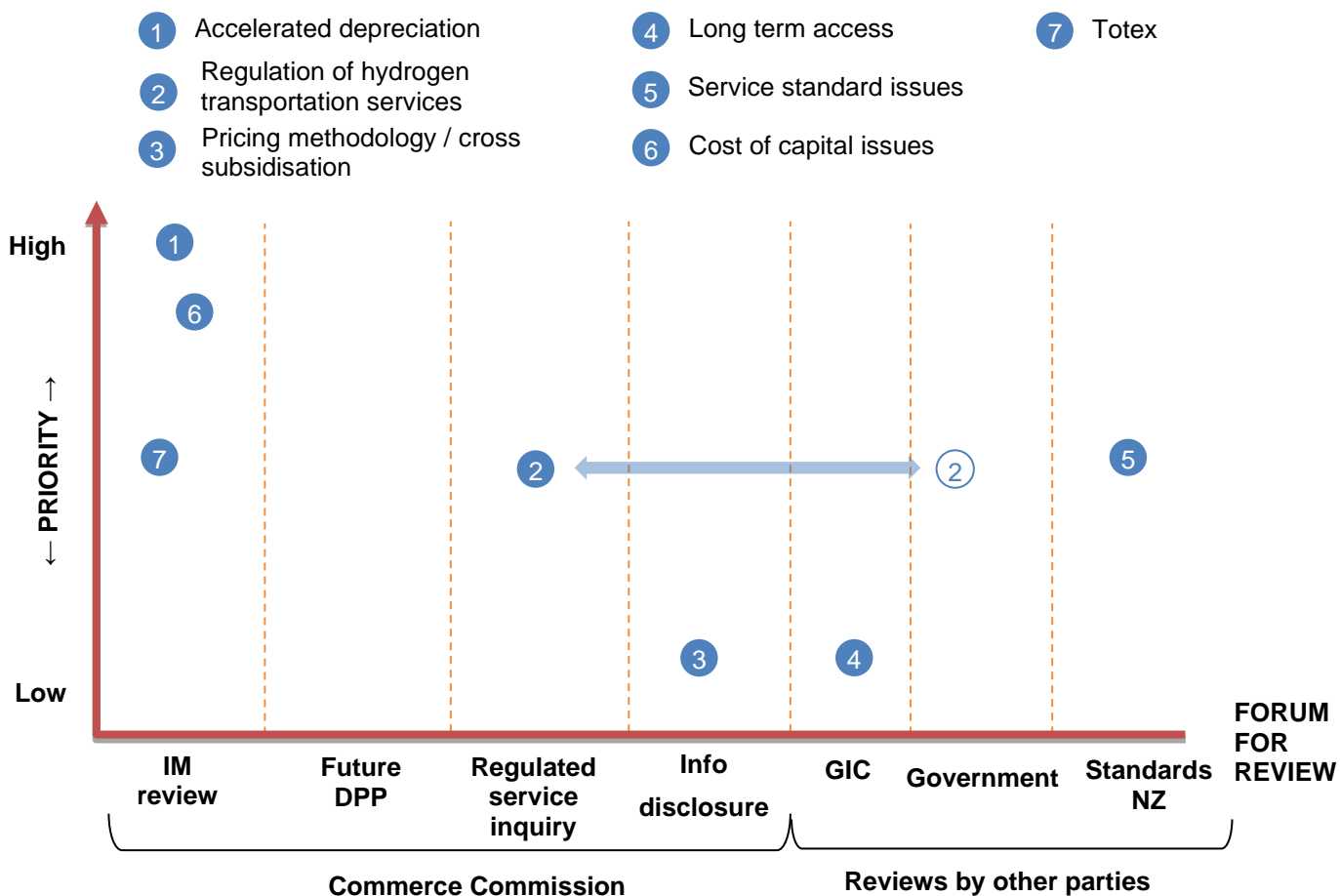
2. Issues prioritisation and forums for review

It is encouraging to see a wide range of stakeholders raising important issues for the Commission to consider during the 2023 IMs review. We recognise that not everyone will agree on how the Commission should prioritise these issues, or even whether some should be considered within the IMs review at all.

We do, however, think it is important for the Commission to apply an initial filter over the issues identified by stakeholders to assess whether they fall within the scope of an IMs review or not, and the priority that should be given to them. In our view, some issues appear to fall outside of that scope, and would be better addressed in other forums (e.g., future DPP reviews or by parties that may consider law changes).

To assist the Commission, we have set out our view on how various issues related to the gas IMs should be prioritised and what forum they should be explored within. We explain these views further below.

Figure 1: Firstgas' views on prioritising key issues raised in submissions



Our assessment of the appropriate forum for review of each issue raised by submitters is discussed in the following sections. Table 1 summarises our assessment of the priority for addressing each issue.

Table 1: Summary of priority assessment for addressing issues raised by submitters

Issue	Priority	Discussion	Reference
Accelerated depreciation	High	Raised by several submitters as a key priority for the 2023 IMs review. We agree this is a high priority issue. The recent gas 2022 DPP reset evaluated accelerated depreciation in some detail and we believe that further evidence and analysis will help to refine the approach adopted.	Section 3
Regulation of hydrogen transportation services	Low	Not a priority issue to resolve at this IMs review because: <ul style="list-style-type: none"> • There is uncertainty about the market context affecting the extent of any future market power held by hydrogen transporters. • It will be some time before material amounts of hydrogen are injected into gas pipelines. Our desktop hydrogen trial report suggested that widespread blending may occur from 2030, starting at relatively low volumes.³ • GDBs are currently preparing for the first phase of hydrogen blending trials, which we expect will provide important learnings for the feasibility of transporting hydrogen blends and the range of issues that need to be addressed to do so at scale. 	Section 4.2
Pricing methodology / cross subsidisation	Low	Decisions will be required about appropriate pricing methodology principles that should apply in due course, if and when material amounts of renewable gases begin to be introduced into gas pipelines.	Section 4.3
Long-term access	Low	Complex questions and stakeholder interests to be considered in any long-term transition towards an increased role for renewable gases such as hydrogen, and reduction and possible phasing out of natural gas. GIC has previously taken responsibility for regulating interconnection and other access issues. ⁴	Section 4.4
Service standard issues	Medium	As renewable gases grow in importance so do important questions over service standards and the technical and other regulation that governs how those gases flow through pipelines. However, these fall outside of the scope of the IMs review and are better suited to review by other bodies (such as MBIE and Standards NZ).	Section 4.5
Cost of Capital	High	A wide range of cost of capital-related issues have been raised by stakeholders, including asset beta estimation, forecasting inflation and financeability. We agree these are important issues and clearly fall within the scope of the IMs review.	Section 5
Totex	Medium	Several stakeholders identified shifting to totex as an important opportunity to improve the regulatory regime. We agree this is an important issue to consider, particularly given the rapid changes in energy sector dynamics.	Section 6

³ See: [Firstgas-Group_Hydrogen-Feasibility-Study-Summary_A4_web.pdf](#).

⁴ See: <https://www.gasindustry.co.nz/our-work/work-programmes/transmission-work-streams/interconnection/>

3. Accelerated depreciation

Accelerated depreciation for GPBs was raised by several submitters as a key priority for the 2023 IMs review. We agree. In our view, accelerated depreciation is a useful tool for reflecting changes in the economic outlook for regulated businesses such as ours. However, it is also challenging to apply in practice, given it involves making decisions under uncertainty.

We are conscious that the Commission's recent decisions to allow for accelerated depreciation in the gas IMs and 2022 DPP reset have been appealed to the High Court. At this stage, we consider that it is appropriate for the Commission to focus on how the IMs might be amended, if at all, to support *future* DPP decisions. We therefore offer our views on the process we think the Commission could follow for the IMs review of accelerated depreciation.

3.1. Overall approach

The recent gas 2022 DPP reset evaluated accelerated depreciation in some detail. We believe that further evidence and analysis will help to potentially refine the approach and improve confidence in it.

We suggest that in further investigating the future role for accelerated depreciation, that the Commission should adopt a logical and transparent process along the following lines:

- **Develop a clear problem definition** – that is, define the problem that accelerated depreciation could be used to address.
- **Survey other regulators** – to understand how, if at all, they use or have considered using accelerated depreciation in their regulatory determinations, with a particular focus on regulators of gas pipelines that operate in jurisdictions that are at a similar stage in decarbonising their energy sector. Such a survey would involve:
 - Identifying what the respective regulatory frameworks allow for or not (as the case may be)
 - Understanding the analysis and factors underpinning their analysis and decisions, and
 - Testing the applicability of this analysis and decisions in the New Zealand context
- **Consider advice** – this could involve the Commission seeking expert advice on the situations when accelerated depreciation may be justified and the approaches that can be used to apply it. This could also involve some sort of expert hot tub where stakeholders get to nominate experts to debate such issues.
- **Identify potential options** – for instance, whether to retain the current approach in the IMs, remove it entirely, or amend it in some way (e.g., to look more like that specified in the EDB IMs, to allow for different approaches for different assets, or to include criteria that guide when and how it should apply).
- **Develop evaluation criteria** – that would be used to assess the potential options. Ultimately, these should tie back to the Part 4 purpose and the long-term benefit of consumers.
- **Evaluate** – the options against the criteria as inputs to a draft and final decision

Throughout this process, it will be important to distinguish between the decision over what, if any, flexibility there is within the gas IMs for the Commission to apply accelerated depreciation, and subsequent decisions over how, if at all, to apply it in a specific regulatory determination. The focus for the IMs review should be on the first and should be principle-based, drawing from best practice where appropriate.

3.2. Stakeholder engagement

Given both the challenges and the level of interest in this topic, we suggest that the Commission's process should provide opportunities for substantive stakeholder engagement including submissions, workshops, and inviting expert input.

We suggest that the Commission should consider holding an expert 'hot tub' to inform the options evaluation step, similar to how it has involved experts in the past.⁵ This would let stakeholders nominate experts that report to each other and present a joint submission that outlines the points of agreement and disagreement. The joint submission would aim to support a focused and informed conversation between the Commission and the experts, and hopefully produce an outcome that is more satisfactory for stakeholders.

⁵ For instance, during the 2016 IMs review, the Commission held a 'WACC workshop' on 7 September 2016 that provided an opportunity for the Commission to direct questions to experts and stakeholders on key WACC-related issues raised in submissions. See transcript: https://comcom.govt.nz/_data/assets/pdf_file/0018/61056/WACC-workshop-transcript-September-2016.pdf.

4. Renewable gases

Several issues were raised in submissions about the implications of using regulated gas pipelines to transport renewable gases. These include:

- **Monopoly** – the pipeline owners will have a monopoly when transporting hydrogen and biogas, and should therefore be regulated services
- **Cross-subsidisation (through inefficient pricing)** – there is a risk that the future transmission pricing methodology will result in inappropriate cross-subsidisation between natural gas and renewable gas consumers, which should be avoided (e.g., by using a ‘pricing principles quality standard⁶’)
- **Access** – users of gas pipelines (e.g., producers, shippers, and consumers) should continue to have access to gas pipelines for as long as they want, even if transporting natural gas
- **Service standards** – various gas standard concerns:
 - The need for a new quality standard that specifies the products that GPBs can convey through regulated gas pipelines
 - The need to delineate between biogas and hydrogen gas as products (e.g., as hydrogen will likely be treated as a separate product to natural gas)
 - NZS 5442 should not be adjusted to increase the portion of hydrogen within the definition of ‘natural gas’.

Many of these issues are policy questions that are better reviewed by MBIE or other policy makers, or otherwise are not within the Commission’s power to address. Others are technical questions better suited to resolution by existing bodies such as Standards New Zealand. Our initial view on these issues is discussed further below.

4.1. The development of the GTP provides important context for the IMs Review

We reiterate a key point made in our submission – being that the development of the Gas Transmission Plan (GTP), currently in its early stages, provides important context for the IMs review.⁷ Some of the above issues raise:

- Policy questions – which are not best addressed by Part 4 of the *Commerce Act 1986* whose purpose is to address markets where there is little or no competition, and/or
- Are issues that are not fundamentally caused by GPB market power.

⁶ Section F. Greymouth Gas Submission on Part 4 Input Methodologies Review 2023.

⁷ Section 2. Firstgas Submission, Part 4 Input Methodologies Review 2023, Process and Issues paper, Draft Framework Paper.

4.2. Whether hydrogen transmission services should be regulated

Greymouth Gas states in its submission that using pipelines to convey hydrogen and biogas will be a natural monopoly. There are two avenues for determining whether hydrogen transmission services should be regulated and if so, how they should be regulated:

- A Section 52G inquiry undertaken by the Commission pursuant to the *Commerce Act 1986*⁸ or
- Through a policy process undertaken by Government.

We acknowledge that at some point it may be appropriate for the Commission or the Government to consider the need for regulation of hydrogen transmission services. This question has been considered by European energy regulators⁹ as part of the development of the European Union Hydrogen strategy¹⁰ who note that:

..., the need for, and scope of, regulation of hydrogen networks will depend on how consumption and production of hydrogen will spread, and if hydrogen pipelines for transport over longer distances will emerge.

If parties request access to a monopoly hydrogen transport infrastructure, as foreseen in the EU Hydrogen Strategy, the market might evolve to situations in which abuse of a dominant position might become an actual risk. However, the development of hydrogen infrastructure is still at an early stage and it is uncertain how it will evolve in practice.

The European regulators recommended a gradual approach to the regulation of hydrogen networks in line with market and infrastructure development for hydrogen, and to apply a dynamic regulatory approach based on periodic market monitoring.

Firstgas – as set out in our hydrogen strategy – considers there are strong benefits in a hydrogen industry developing around the existing gas transmission network.

GDBs are currently at an early stage of exploring feasibility of transporting hydrogen blends. GDBs are preparing for the first phase of hydrogen blending trials. We expect this will provide important learnings for the feasibility of transporting hydrogen blends and the range of issues that need to be addressed to do so at scale. However, as noted by the European regulators, at this early stage it is unclear whether a hydrogen industry will end up developing in this way and, if it did, whether market power will be a concern.

We consider that this is not a priority issue to resolve at this IMs review because there is uncertainty about the market context affecting the extent of any market power held by hydrogen transporters. It will be some time before material amounts of hydrogen are injected into pipelines, which means that market power is unlikely to be an issue in the near term. Our hydrogen strategy work suggests that widespread blending could start at low (1%) volumes in 2030 with this potentially ramping up over time should the economics of blending be supportive.¹¹ If a Commission inquiry were held today, it is almost certain that no dominant market position would be identified.

⁸ Section 52G of the *Commerce Act 1986* sets out criteria for when a good or service may be regulated (which include whether there is little or no competition). Section 52H sets out how an inquiry into regulation of a good or service is triggered and Section 52I sets out the matters that must be considered by the Commission including whether the section 52G criteria are met. Section 52K requires that at the end of an inquiry, having considered the matters in section 52I, the Commission must make a recommendation to the Minister on whether the goods or services should be regulated.

⁹ European Union Agency for the Cooperation of Energy Regulators (ACER) and the Council of European Energy Regulators (CEER) which is the European association of energy national regulatory authorities.

¹⁰ [Europe Union Hydrogen Strategy](#).

¹¹ Firstgas, *Brining Zero Carbon Gas to Aotearoa*, 2021, p.10. See: https://firstgas.co.nz/wp-content/uploads/Firstgas-Group-Hydrogen-Feasibility-Study-web_pages.pdf.

4.3. Pricing methodology and cross-subsidisation concerns

In the short-term, we recommend that regulation of our pricing methodology should continue by way of Information Disclosure and not be considered as part of this IMs review. We intend to keep the Commission informed of progress on our current transmission pricing methodology review which is underway and can discuss its progress with the Commission on an ongoing basis. We are engaging directly with interested stakeholders.

Cross subsidisation concerns were identified in one submission and arises in the context of Firstgas' pricing methodology for gas transmission services (Pricing Methodology). This section discusses the current Pricing Methodology and a review of it (which is underway); the implications for pricing methodology principles if and when material amounts of renewable gases begin to be introduced; and comments on cross-subsidisation concerns.

4.3.1. Pricing methodology review

Firstgas has an established pricing methodology for our gas transmission business,¹² which is published pursuant to a Commission Information Disclosure Determination¹³ (a separate instrument from the IMs). Our transmission pricing methodology incorporates all the information required by the Commission, as set out in the Information Disclosure Determination and demonstrates consistency with the pricing principles.

We recently initiated a review of this pricing methodology as a means of informing our approach to transmission pricing in upcoming years. The recent *Gas Transmission Services Default Price-Quality Path Determination 2022* represented a significant change in approach to setting Firstgas' allowable revenue. As a result, we have indicated to our shippers and other stakeholders that we anticipate that this review will allow us to view transmission pricing from a holistic perspective, identify improvements to our pricing methodology that we can implement in the near term, as well as provide a sound basis for adapting to future changes in gas transmission.¹⁴

Principles we will continue to apply are that the pricing methodology should promote efficiency and produces equitable outcomes. We also intend to consider future scenarios, including distributed gas production through the injection of renewable gases like biogas and hydrogen. We intend to consult with customers and broader gas industry stakeholders throughout the review and anticipate that any changes could be reflected in a new pricing methodology that will take effect from Gas Year (GY) 2024.¹⁵

Rather than impose more regulation, we consider that we should have the opportunity to complete this review because:

- It enables us to be responsive to our customer needs
- We have a successful track record of working with customers to accommodate their varied circumstances and requirements, and
- We have highly aligned incentives to promote the ongoing use of gas pipelines (see section 4.3.3 below).

Sitting behind this, the threat of regulation can act as a backstop that helps ensure that such review processes remain on track and stakeholders have confidence in the process. Regulatory change may be needed, for

¹² Firstgas, *Pricing Methodology for Gas Transmission Services From 1 October 2021*. This document is prepared pursuant to clause 2.4 of the *Gas Transmission Information Disclosure Determination 2012* issued by the Commerce Commission on 3 April 2018.

¹³ Clause 2.4 of the *Gas Transmission Information Disclosure Determination 2012* issued by the Commerce Commission, 3 April 2018.

¹⁴ Letter to shippers on provisional transmission prices (1 June 2022); and Letter to Maui customers with final prices (2 August 2022).

¹⁵ From 1 October 2023.

instance, if we face difficulties allocating fixed costs among different customer types. However, we are not there yet. It is premature to make changes without actual harms being identified.

4.3.2. Pricing methodology to enable renewable gases

Decisions will be required about appropriate pricing methodology principles that should apply in due course, if and when material amounts of renewable gases begin to be introduced. Initially, and for some time, it is likely that renewable gases would be transported in conjunction with natural gas.

However, in our view, this is not an issue that requires immediate decisions. As we progress the pricing methodology review, we intend to consult with stakeholders about future scenarios and start to consider what new pricing principles may be required in future to accommodate renewable gases.

In the short term, we consider that regulation of our pricing methodology should continue by way of Information Disclosure regulation. As such we consider that the pricing methodology should not be considered as part of this IMs review.

We acknowledge that in the longer term, there may be questions that arise about cross subsidisation concerns that may be guided by Part 4 of the *Commerce Act 1986* and therefore may be of interest to the Commission. We intend to keep the Commission informed of progress on our current pricing methodology review and following the expected introduction of the new pricing methodology in 2024. We anticipate discussing these matters with the Commission further as needed on an ongoing basis.

4.3.3. Cross subsidisation concerns

This section sets out brief comments on the cross-subsidisation concerns.

First, consideration of possible harm caused by cross subsidisation needs to be considered in light of the Part 4 Purpose, which is to ‘promote the long-term benefit of consumers ... by promoting outcomes that are consistent with outcomes produced in competitive markets’ (Emphasis Added).¹⁶

Given the focus on the long-term interest of customers, cross subsidisation does not necessarily create harm simply because suppliers in a market are treated differently by an infrastructure provider. In competitive markets, firms supplying a shared service will often set prices in line with different levels of end use market demand responsiveness and different prospects for market growth. In some circumstances, for example, it may be efficient to set prices in a way that share upfront pipeline repurposing costs as a way to promote the long-term continued use of existing infrastructure, which will benefit existing natural gas customers as well as new customers.

We acknowledge that there could be policy concerns about differential commercial outcomes for different suppliers, but if this is the case then Part 4 may not provide the appropriate guidance to address this concern.

Second, we consider that our incentives as a commercial business are relevant in considering whether there may be a future need for regulatory intervention in setting transmission pricing. We consider that as a commercial business, that we have strong incentives to find ways to extend the useful life of our assets and maximise asset utilisation. This requires us to support the commercial success of both our current and future shippers – including shippers of different forms of gas – as the gas market changes.

Third, if there is to be consideration of further intervention in transmission pricing due to concerns about cross subsidisation, then it should be based on a clear problem definition. As outlined above, we anticipate following a consultative and transparent approach with our stakeholders to exploring new pricing principles that may be required to accommodate renewable gases. The Commission will be well informed. Should concerns emerge, any investigation by the Commission should start with a problem statement.

¹⁶ 52A (1) *Commerce Act 1986*

4.4. Long term access

Greymouth Gas submits that in order to receive the gas products that they require, consumers need to have access to the gas pipelines that transport those products. To achieve this, Greymouth Gas proposes that an 'Interconnection quality standard' should be introduced that requires GPBs to maintain the quality of supply of services, ensuring that they are available (setting aside operational issues).

Greymouth Gas states that the existence of petroleum permits extending beyond 2035 and the likely continued demand from non-decarbonising consumers (forthcoming) means that there will be a continued need for access to gas pipelines for natural gas consumers beyond 2035, and also likely well beyond 2050. It states that, if Firstgas acts in accordance with our Hydrogen Strategy, then there will be:

- (a) An end to the natural gas market before the last of the petroleum mining permits / licenses (and end-consumer demand for that natural gas) expire and
- (b) A 'post-code lottery' for end-use consumers vis-à-vis when their access to natural gas ends – i.e., because of the planned rollback of natural gas from each end of the network to Taranaki.

Greymouth Gas goes on to state that:

A fair outcome would be the use of gas pipelines by hydrogen (and/or other alternative gases) in conjunction with natural gas (subject to operational, safety, allocation, and quality standards considerations), and that hydrogen does not or cannot displace natural gas.

Firstgas recognises that there are complex questions and stakeholder interests to be considered in any long-term transition towards an increased role for renewable gases such as hydrogen, and reduction and possible phasing out of natural gas. Considerations include:

- The effect of declining natural gas demand on pipeline service prices – lower volumes means that there is less demand to recover fixed costs over, raising per unit costs
- The interests of natural gas producers and users in either: transitioning to renewable fuels; continuing to use natural gas in the long-term and addressing carbon emission through carbon capture and storage and / or carbon offsets; or exiting the market and
- The potential countervailing interests of energy users in developing renewable gas markets that are of sufficient scale to drive down renewable gas costs.

The GIC is the body currently responsible for overseeing and regulating interconnection issues.¹⁷ We consider that Part 4 of the *Commerce Act 1986* is not well suited to governing these decisions. The problems are not fundamentally caused by the market power of GPBs – mitigating market power is the purpose of Part 4.

We consider that, following good regulatory practice, there needs to be a clear understanding of the long-term transition issues, consideration of the full range of potential solutions including commercial solutions, and selection of Government actions that are effective and proportionate. The Commission could look for guidance about how other workably competitive markets with dominant players adjust to major transitions. Often these involve government direction or coordination. Examples include changes to TV broadcast markets, and the transition from copper to fibre fixed line networks.

We expect that the Gas Transition Plan will cover these questions, although there will likely remain considerable uncertainty about the best approach to long term transition.

¹⁷ The objective of the GIC's interconnection work programme is to ensure that arrangements for third party connections to gas transmission pipelines are reasonable. See <https://www.gasindustry.co.nz/our-work/work-programmes/transmission-work-streams/interconnection/>

4.5. Service standards issue

The *Specification for reticulated natural gas* (NZS 5442:2008)¹⁸ currently defines the requirements for providing a gas suitable for transportation and for end use by most consumers for gas burning appliances or vehicle fuel. This standard is overseen by Standards New Zealand.

Standards NZ have recently started work on a hydrogen standard review project¹⁹ which looks at updating this standard. Following the announcement of the Government Emissions Reduction Plan and the gas sectors plans to introduce both hydrogen and biogas into the network, it has become clear that the NZS5442 standard is no longer fit for purpose as it can't accommodate introduction of these renewable gases. In recent communications with the gas sector, Standards NZ has outlined its approach to this review, which covers two stages:

- The first stage involves revising the existing standard (in the form of an 'Interim' standard), to enable blending of natural gas with biomethane.
- The second stage involves a further revision of the interim standard to include blending of natural gas with hydrogen.

Firstgas representatives will be actively involved in the committee that progresses this work, with the first stage of work expected to be completed by May 2023.

The proposal that the Commission should set a new quality standard specifying the products that GPBs can convey through regulated gas pipelines misunderstands the purpose of quality standards (as defined by section 52S of the *Commerce Act 1986*). The Part 4 quality standards are intended to refer to the quality dimensions of a pipeline transport service that are under the direct control of the pipeline, not the quality of the product(s) conveyed through a pipeline on behalf of shippers.

As outlined above, the standards for products conveyed through a pipeline are currently set by NZS 5442:2008, which was not determined by the Commission pursuant to Part 4 of the *Commerce Act 1986*. It is not within the Commission's power to amend these. The Commission and pipeline owners are not the appropriate parties to ultimately determine any future gas quality standard(s) specifying the products that GPBs convey through regulated gas pipelines.

Decisions as to gas specification should be made in a way that best promote economic efficiency for the long-term interest of consumers and should consider any guidance from the Government's gas industry transition policies, or any changes to law or regulation made because of these policies. GPBs are of course important stakeholders in these decisions on gas quality standards because standards affect the costs of pipeline services and therefore the nature of pipeline services that it will be economic to provide.

¹⁸ <https://www.standards.govt.nz/shop/nzs-54422008/>

¹⁹ Both WorkSafe New Zealand-Energy Safety, and the Gas Industry Company (GIC) have agreed to co-sponsor this project.

5. Cost of Capital issues

5.1. Asset beta

Stakeholders submitted on various aspects of asset beta estimation. We discuss two of these here, with a focus on the samples used to estimate the asset beta for GPBs.

5.1.1. Gas versus electricity

Transpower submitted that the Commission should:²⁰

Retain current approach to the sample including gas and electricity. The Commission is likely to face the same sample size issues encountered when it previously considered this matter, which could preclude production of robust, separate estimates of asset betas for the two sectors.

We disagree.

We agree that sample size is a relevant consideration when estimating asset beta, but so is whether the sample is sufficiently comparable – perhaps more so. It may well have been true that the systematic risks facing gas and electricity networks were sufficiently aligned during past IMs reviews that a common sample made sense. However, risks have changed significantly over the last few years. The prospects for gas and electricity networks are now markedly different.

As explained in our submission on the Process and Issues Paper, the future for gas networks is highly uncertain. Climate change policy is evolving – and it is foreseeable that this may lead to complete winddown of gas pipelines. The same is not true of electricity networks, where climate change policy is likely to support an *increase* in use as electrification is actively being encouraged (e.g., of electric vehicle uptake and switch out of coal boilers).

Clearly, there is a question as to whether these (and any other) differences in risk are systematic or not – and so would be reflected in an asset beta or not. To the extent that the market is sensitive to climate change risks, then it is certainly conceivable that it will respond differently to industries that have positive (electricity) or negative (gas) exposure to such risks.

Given this, in our view, it would be inappropriate to assume that electricity companies are sufficiently comparable to regulated GPBs simply because that was assumed in the past. Before making such an assumption it is incumbent on the Commission to test it.

As to the concern about sample size, this may be a red herring. It is common practice in both corporate valuations and in regulated utilities to draw on small samples of more comparable companies when estimating beta, rather than increasing the sample and risk sacrificing comparability.

We look forward to engaging with the Commission and other stakeholders on asset beta further throughout the IMs review process.

5.1.2. Impact of Covid-19 and use of US comparators

After pointing out the impact of the Covid-19 Pandemic by looking at betas in the US measured against the S&P 500 index, the Lines Company considered that:²¹

adjustments should be made to the asset betas of distributors, which appropriately reflect the risk and reward relationship.

²⁰ Transpower, *Input Methodologies Review 2023: Draft Framework Paper and Process and Issues Paper*, 11 July 2021, p.4.

²¹ The Lines Company, *TLC Submission: Part 4 Input Methodologies Review 2023 Draft Framework paper and Part 4 Input Methodologies Review Process and Issues paper*, 11 July 2021, p.4.

We agree.

We also question whether it remains appropriate to rely so heavily on US companies to estimate the asset beta. Although foreign comparable companies *may* provide relevant information on risks in New Zealand, this should not be presumed.

Similar to our point above in relation to using a common gas and electricity sample, it is incumbent on the Commission to test whether the US companies are sufficiently comparable or not.

5.2. Financeability

Some stakeholders have suggested that financeability be explicitly considered by the Commission when making its regulatory determinations. We agree that this is an important issue to be considered.

Several regulators, including Ofgem and Ofwat in the UK, and IPART in Australia, consider financeability when making regulatory determinations. The intent is to assess whether those determinations will provide sufficient revenue so that the regulated businesses can efficiently finance their capital and operating activities.

There are good reasons why financeability may increasingly become a concern for GPBs in New Zealand, including:

- The potential need to invest in repurposing existing gas pipelines to accommodate hydrogen gas
- Uncertainty over future demand for gas transportation services as part of the energy transition
- Increases in material costs due to supply chain issues caused by the Covid-19 pandemic and Russia's invasion of Ukraine.

Similar reasons likely apply to other businesses that the Commission regulates. EDBs, for instance, will need to invest to support the energy transition, especially to accommodate the uptake of electricity vehicles and other electrification.

Given this, the Commission should include financeability as an issue to consider in the IMs review. Questions that the Commission could consider include:

- Is it sensible to consider financeability when making regulatory determinations?
- How can financeability be operationalised within the gas IMs? Is there a need for different approaches across the sectors it regulates?
- How prescriptive should the IMs be? How much discretion should be left for individual determinations?
- What remedies should be available to the Commission if a financeability concern is identified?

These are other questions that may help the Commission and other stakeholders consider how, if at all, financeability could be incorporated into the gas IMs.

5.3. Forecast inflation

Some stakeholders raised concerns about how the Commission forecasts inflation. Although in the current high interest rate environment, the Commission's approach may lead to lower forecasts than might otherwise be the case, in prior years where interest rates were lower the reverse has been the experience. This appears to occur in large part because the Commission anchors its forecast around the mid-point of the Reserve Bank of New Zealand's inflation target range (i.e., 2.5%).

We agree with these stakeholders that forecast inflation is an important issue for the Commission to consider.

We also recognise that there is an interaction between how the Commission forecasts inflation and the role that forecast inflation plays. At present, forecast inflation is used to reduce forecast revenue through the

indexation building block. If indexation were to no longer apply – as is proposed by some stakeholders – then concerns over inflation forecasting error may be less relevant.

6. Totex

Several stakeholders encouraged the Commission to further investigate applying a ‘totex’ approach in New Zealand, including because it can:²²

- Simplify the incentive regimes (e.g., with equality weighting to totex within the IRIS mechanism) and
- Equalise incentives across Opex and Capex, which can help improve investment decision-making and Capex-Opex trade-offs (e.g., by avoiding mismatched incentives between Capex and Opex).

Orion goes on to say that “[w]e strongly believe the time has come for a Totex approach”.²³

We agree with these submissions. We agree that that a totex approach can better align incentives when choosing between Capex and Opex solutions. It can also benefit consumers through the energy transition by enabling more flexible and dynamic decision-making on the balance of fixed and variable costs. For example, opting for Opex solutions at certain times may be appropriate to preserve options and flexibility over comparable Capex solutions.

A totex approach is also flexible enough to support any decisions to apply accelerated depreciation. As discussed in section 3, accelerated depreciation is a useful tool for reflecting changes in the economic outlook for regulated businesses such as ours.

However, it is also challenging to apply in practice given it involves making decisions under uncertainty. Totex can be used to help reinforce those decisions because it can be adjusted to speed up or slow down cost recovery in much the same way that accelerated depreciation can. This will be important to avoid misaligned incentives (e.g., avoid incentivising capex at a time when the objective is to reduce the RAB).

We strongly support further investigating a totex approach.

²² Transpower, *Input Methodologies Review 2023: Draft Framework Paper and Process and Issues Paper*, 11 July 2021, p.32; Wellington Electricity, *Part 4 Input Methodologies Review 2023 – Process and Issues paper*, 11 July 2021, p.15; and Orion, *Feedback on the Input Methodologies ‘Draft Framework Review’ and ‘Process and Issues’ Papers*, 11 July 2022, p.21.

²³ Orion, *Feedback on the Input Methodologies ‘Draft Framework Review’ and ‘Process and Issues’ Papers*, 11 July 2022, p.28.