10 February 2023

Charlotte Reed
Input Methodologies Manager,
Infrastructure Regulation
Commerce Commission
P O Box 2351
Wellington

Via email: im.review@comcom.govt.nz

Dear Charlotte

Re: Options to maintain investment incentives in the context of declining demand

1. This submission is on the Commission's discussion paper *Input Methodologies Review - Options to maintain investment incentives in the context of declining demand* dated 20 December 2022 (in this submission "the Paper").

2. Our members have been consulted in making this submission but it does not necessarily represent all the views of any of them and some members may make separate submissions. Nothing in this submission is confidential.

Summary

3. Our submission's primary concern is that all proposals seem to assume a need for compensation to suppliers if stranding risk is returned to suppliers from consumers. MGUG consumers do not accept that the law ever justified making them carry stranding risk or that suppliers should be compensated for carrying the risk:

    a. It is inconsistent with outcomes in competitive markets;

    b. It is directly contrary to limiting excessive profits, the primary purpose of regulation of suppliers with monopoly price setting powers;

    c. It negates normal supply/demand curve incentives toward efficient consumer decisions about gas assets and use, by prematurely increasing gas delivery costs, instead of reducing them;

    d. It may incentivize wasteful investment in assets by suppliers who should be reducing investment.

    Part 4 requires the Commission to limit the extraction of excessive profits in a regime that simulates the outcomes and incentives of a workably competitive market. It has become evident that in circumstances of threatened stranding the current BBM does not succeed in

simulating workably competitive market outcomes. From Commission papers, it appears that situation results from allowing ex ante FCM to mutate into ex post FCM on sunk assets. FCM has acquired a status in the BBM that outweighs the requirements for consistency with competitive market outcomes. As applied, it is effectively equivalent or superior to an "outcome" specified in s 52A1.

4. Under the current BBM the proposed further options A to D, create materially worse outcomes with regard to S52A and S52R. We cautiously favour a variant of proposed **option E (without including Option D).** The caution is because it is not clear how a write down for stranding regime would be implemented. But requiring it without compensation to suppliers would be the nearest to what happens in workably competitive markets. We of course seek revocation of the gas IM amendments made in 2022. Options A to D, or any other form of accelerated depreciation causes prices to rise through the mechanics of the Commission's BBM, when prices should stay the same, or fall.

5. The Commission should use its influence to press for a change to the Act's definition of gas pipeline services to broaden it to include low carbon gases that do not currently meet the definition of gas. This would benefit both suppliers and consumers by recognising the value of strategic options for asset repurposing already being worked on to continue to give consumers energy choices as it would more realistically reflect the economic life of gas pipeline services.

Fundamental Framing Problems

6. In order to respond properly to the Paper, we needed to go back to some of the fundamental framing issues that are implicit in the Paper and re-examine them in light of what appears to us to be a new, and relatively unexamined issue of how the Building Block Method (BBM) simulates workably competitive market outcomes in the context of economic stranding risk.

7. In reaching a final decision it seems important to us that the Commission considers all the available evidence or information together to arrive at conclusion. In the following we have provided a range of arguments and where we can find it, factual evidence which together delivers our case for re-examining some of the implied assumptions underpinning the Commission's thinking and competitive market simulations. We don't necessarily expect that a single argument can cover all of the complexities of the topic. It is the weight of the overall evidence that concerns us here.

S52A Purpose

8. The Commission seeks to put S52A at the heart of its decision making. While the Commission relies on its judgement to balance the various outcomes, case law and previous decisions have provided useful clarifications and distinctions. We've considered them to produce this submission. We want to clarify our previous submission and cross submission on the framework and process and issues[1]:

    a. Competitive markets were defined as *workably* competitive markets by the High Court[2].

    b. Workably competitive outcomes were further defined by the High Court as being synonymous with outcomes produced in ***strongly competitive*** markets – ("*why would regulation aim lower than is desirable*")[3]

    c. Outcomes were defined as ***tendencies*** that are ***consistent*** with those produced in competitive markets[4]. i.e., they are average expectations not absolute expectations.

    d. "Prices are at the heart of Part 4 regulation"[5]

9. While the Commission may argue that it can't just focus on prices to assess the long- term interest of consumers, in workably competitive markets price generally reflects the other outcomes expressly mentioned in S52A. Workably competitive markets are characterised by firms being price takers, not price makers, and as noted by the High Court, price implicitly embodies the other desired S52A outcomes[6]

[1] 202207 MGUG Submission on 2023 IM review- Framework and Process and Issues Paper, 202207 MGUG Cross Submission on 2023 IM review- Framework and Process and Issues Paper.
[2] WELLINGTON INTERNATIONAL AIRPORT LTD & ORS v COMMERCE COMMISSION [2013] NZHC 3289 [11 December 2013] – [6]
[3] ibid – [22], [24] (h)
[4] Ibid – [18]-[23]
[5] Ibid – [29]
[6] WELLINGTON INTERNATIONAL AIRPORT LTD & ORS v COMMERCE COMMISSION [2013] NZHC 3289 [11 December 2013] – [22]

> ***The process of rivalry is what creates incentives for efficient investment, for innovation, and for improved efficiency****. The process of rivalry prevents the keeping of all the gains of improved efficiency from consumers, and similarly limits the ability to extract excessive profits*.
>
> In other words, incentives for efficient investment, improved efficiency, and innovation are embedded in price, in markets where firms can't unilaterally raise prices.

The BBM doesn't simulate competitive market outcomes under economic stranding risk under the Commission's proposals for altering depreciation rates

10. We think it is significant that it seems that when designing the IM methodologies, the Commission and its advisors *never contemplated having to cope with economic stranding risk within the Building Blocks Model (BBM)*.[7]:

> "*Stranding risk was not envisaged when regulation of natural monopoly infrastructure was designed.* ***Regulatory regimes that apply the building block method assume that once capital expenditure is added to the RAB it will remain there until fully depreciated****. This understanding provides regulated providers with a degree of certainty that they will recover their investment in what are typically very long-lived assets". (MGUG emphasis added)*
>
> *Para 6-1041*

11. As we discuss further down in this submission, when the Commission proposes to accelerate or otherwise front load depreciation rates to address economic stranding risk, the mechanics of the BBM causes prices to consumers to rise when they should fall. This is not an outcome that is consistent with what is seen in workably competitive markets.

FCM ISSUES

What does the Commission mean by FCM?

12. It may seem odd to ask the question given the extent that FCM has been discussed, but having spent considerable time reviewing background material, it is not clear to us now that there is a shared understanding of what the concept of FCM is meant to embody.

13. Our working assumption is that FCM plays an important role in investment decisions on an *ex-ante* basis. That is investment decisions are based on an expectation of achieving a "normal" return on the *overall life* of the asset. Once the asset investment is sunk, the ex-post outcome may be different (better or worse). The risk of disappointing life or return is with the supplier. This seems consistent with how the High Court described it:

> ***"Over the lifetime of its assets****, a typically efficient firm in a workably competitive market* ***would expect ex ante*** *to earn at least a normal rate of return (i.e. its risk-adjusted cost of capital). Because allowing a firm the expectation of being able to earn normal returns over the lifetime of an investment provides it with the chance to preserve its 'financial capital' in real (not nominal) terms, such an outcome is often*

[7] Fibre input methodologies: Main final decisions – reasons paper 13 Oct 2020 – para 6-1041

referred to as 'financial capital maintenance' or 'FCM'. ***In a regulatory context, FCM is achieved, on an ex ante basis"*** (MGUG emphasis added)

[2013] NZHC 3289 [11 December 2013] – para [261]

14. However, we now note that the Commission may have a subtly different understanding:

> *"The FCM principle is that regulated suppliers should have the expectation ex-ante of earning their risk-adjusted cost of capital (ie, a 'normal return'), which provides them with the opportunity to maintain their financial capital in real* ***terms over time frames longer than a single regulatory period****.*
>
> *Price-quality regulation does not guarantee a normal return over the lifetimes of a regulated supplier's assets. However, given that a typically efficient firm would expect ex-ante to earn at least a normal rate of return over time, application of this principle can assist in promoting the s 52A(1) outcomes and purpose"*
>
> *(MGUG emphasis added)*

Consolidated IM review draft decisions *16* June 2016 – p107 of 790

15. With the benefit of seeing the outcome of the recent gas IM amendment determination, we are left pondering whether the Commission sees itself as securing the original ex-ante FCM expectation *after every regulatory period*, rather than the overall life of the asset? If that is the case, we suggest that this is not what the law intended, or the High Court clarified in 2013. We request that the Commission should clarify what it means by FCM.

16. Equally, the Commission may be correct in resetting the ex-ante FCM expectation by marking the value of the assets to market for each regulatory period, but wrong in allowing the capital loss to be passed to consumers instead of suppliers because it relies on BBM methodology not designed for dealing with economic stranding risk. We request that the Commission shows how the BBM simulates competitive market outcomes under the scenario of economic stranding risk.

More explanation needed

17. MGUG has tried to understand:

    a. How the Commission distinguishes ex ante from ex post, with respect to FCM? It seems to us that the Paper's proposals all suffer from assumptions that FCM requires compensatory adjustments to increase returns on sunk assets in the RAB. That seems to be treating the FCM assurance as being for ex post FCM.

    b. Whether the proposals in the Paper that involve ex post (post investment) compensation, are tied or limited to risks associated with peculiarities of the BBM simulation and the regime's cap on revenue? We think the Paper does not propose such

a qualification. Accordingly, the compensation seems to be intended for risks faced by firms in competitive markets;

c. Why the Commission apparently regards stranding risk as not among the risks reflected in the WACC determination. Presumably it is on the basis of a conclusion that stranding risk is not systematic. The sector here, and in the countries of the WACC sample, have a history of fears of exhaustion of gas supplies (in the US particularly before fracking, and in New Zealand because of reliance on domestic gas reserves[8]). That alone has made the risk of substantial declines in demand a feature of markets for transport of gas. A careful review may invalidate an assumption that declining demand risk is excluded from beta or WACC. MGUG asks that the Commission identify the relevant material from its record and set out the chain of reasoning.

Is the assumption of asymmetric risk and ex-ante FCM compensation justified?

18. The presumption of ex-ante FCM compensation for regulated businesses seems to have entered the Commission's core beliefs some time ago. In 2008 it was noted that[9]:

> ***"The Commission recognises** that regulation (and competition) imposes asymmetric risks on regulated firms by capping profits without providing commensurate insulation from downside risk. Firms may also be exposed to stranding risk (through technical obsolescence, unfavourable demand shocks or regulatory optimisation) and to large catastrophic events such as natural disasters. **The Commission's view** has been that unregulated firms will typically seek compensation for such risks by adjusting their prices, either ex ante or ex post. The Commission provides compensation for asymmetric risks, on a case-by-case basis, and prefers to do so by adjusting the regulatory cash flows rather than adding a margin to WACC.*
>
> *All three Panel members agree that asymmetric risks are real, potentially have large impacts on the firm, and therefore should not be ignored by the Commission".* (**MGUG emphasis added**)

19. This statement seems to us to have become an article of faith, rather than a tested proposition. It seems a basic premise that underpins much of the Commission's further reasoning process and we have doubts that this premise is even correct when tested against economic theory or empirical evidence of observable behaviour in workably competitive markets.

20. We have searched for the Commission's evidence that might have supported their views as they expressly referred to stranding risk. We were unable to find any. The statement presents premises that appear unsupported by evidence (the nature of the asymmetric risk, and what can be seen in competitive markets) and contradicts the basis of Part 4 purpose (promoting outcomes that are consistent with outcomes produced in competitive markets). We did not

[8] We refer to the definition of reserves under the SPE/WPC framework as resources that are; technically recoverable, remaining, and economic to recover. In the NZ context, reserves have always shown marked declines in forecast production profiles

[9] Franks J., Lally M., Myers S. Dec 2008, *Recommendations to the New Zealand Commerce Commission on an appropriate Cost of Capital Methodology, p*37

separately find any balance of empirical evidence to support the position that unregulated firms would increase prices when faced with stranding risk[10].

21. Firstly, as a matter of economic theory, by definition, in competitive markets, firms (on average over time) cannot earn economic profits – i.e., there is an expectation that NPV=0 over the long term[11]. This is the basis for the ex-ante FCM economic principle that the Commission applies. It is why regulated profits are capped ex-ante at NPV=0.

22. It has been argued that "capping" ex-ante profits at NPV=0 is disadvantaging regulated businesses because they lose the opportunity to earn super-profits in their (random) walk around the average, which for unregulated businesses are the compensation for the periods of below average returns. That argument seems to miss the key condition that attracts regulation. The regulated supplier is regulated because they are not price takers. They can limit their exposure to the normal competitive market business experience of involuntary lower than average returns. Their monopoly power is the protection. Indeed, the Commission will probably be familiar with academic arguments that the returns for a revenue regulated monopoly have more of the characteristics of a bond, than an equity.

23. The BBM regime, with a market derived WACC, was designed to simulate what workably competitive markets tend to achieve over time on average, and applies that to businesses with market power that could otherwise deliver sustained super-profits in order to *restrict their pricing behaviour to observable tendencies in workably competitive markets* (i.e., capped at normal returns). The regime does not take away the supplier's pricing power ability to protect itself from revenue losses below the regulated revenue. Nevertheless, from what we can see in the Commission record the revenue risk asymmetry argument seems to have been uncritically relied upon ever since it was offered.

24. If the Commission holds out the prospect of ex post or case by case supplementation of revenues at the expense of consumers, for 'unexpected' or non-systematic loss events, what equity risk remains to justify the equity premium over debt? MGUG sees no justification for asymmetry compensation (for alleged downside risk without upside opportunity) because the pricing risk on the downside remains covered and under the CAPM formula nothing is given away on the upside[12].

25. Of course, unregulated firms might seek compensation for matured risks *ex-post* through price adjustment. This is not what we tend to observe empirically in workably competitive markets

[10] This does not overlook the later work of advisors for the Commission on the alleged asymmetry of consequences from inadequate regulated return leading to under-investment vs excess profit leading to over-investment

[11] See for example https://www.investopedia.com/terms/n/normal_profit.asp . "Normal profit is a condition that exists when a company or industry's economic profit is equal to zero, and in macroeconomics, an industry is expected to experience normal profit during times of perfect competition.". In dynamic terms, any firm earning economic profits expect that to be competed away with new entrants undercutting prices to meet their cost of capital.

[12] Note that both regulated and non-regulated firms have the opportunity for earning higher profits in the short- term ex-post. This is a design feature acknowledged in the DPP settings and regulatory control periods which encourages regulated firms to find efficiencies to improve their profitability.

(see further below). They are disciplined by competitive market dynamics. The experience of loss might affect expectations about cost, but prices will be determined by the supply and demand curves. Unless suppliers withdraw supply, their view about what they ought to be paid are immaterial. Their revenue in a competitive market is the clearing price. The question in the stranding situation is whether and where the supplier's best interest lies in ceasing to supply. In theory that should not occur until the price does not cover variable costs.

26. We should note that for ex post price adjustments, the Commission repeated its view in the 2020 Fibre determination by asserting (without evidence) that unregulated firms, price to compensate for losses:

> *In workably competitive markets existing firms may be exposed to the risk of new entry that would erode upside returns when the market is profitable. When the market is unprofitable entrants are unlikely to arrive so incumbent firms are left to entirely bear any losses**. In workably competitive markets, firms will try to compensate for the downside risk of bearing the losses by increasing prices where they can and thereby keep an expectation of symmetric returns**.*
>
> Fibre input methodologies: Main final decisions – reasons paper 13 Oct 2020 – para 6-996

27. There is something odd about this statement in the Commission record about firm pricing behaviour. If firms could raise prices in a competitive market to cover past losses, or even anticipated future losses, why would they not do so irrespective of the losses. Why only raise prices to compensate for ex-ante FCM loss?

28. Perhaps there is an implicit assumption that the matured FCM loss for which compensation is sought, has a character that applies across all suppliers, and affects their variable costs, so there will be no competitive disadvantage or revenue risk from raising prices in consideration of the loss. If that is the explanation, it is inadequate.

29. Firms in workably competitive can't unilaterally raise prices to compensate for shortened economic lives, and this applies equally to disappointing ex-ante investment decisions. If a new project looks to be NPV negative, rather than raise prices (which competitive price takers can rarely do) firms look for opportunities to lower their costs to restore positivity. They can change CAPEX (including creating timing options) and find OPEX trade-offs, which they can control/ influence. This is also what we see in supplier AMPs when they defer investment through life extension, or select CAPEX solutions that have a shorter economic life but may have to be done more than once.

30. The statement also seems to ignore the fact that for most stranded assets the firms have already incurred the loss when the stranding is recognised. It is a capital loss. It may be progressively recognised, but generally once stranding is seen as likely, the question is for how long they can defer or diminish the loss of revenue. This submission reverts later to the question of how businesses in competitive markets actually behave, with reference to the experience of our members.

31. The Commission's reasoning for its position also seems to rely primarily on the Hypothetical New Entrant Test (HNET)[13]. The HNET was examined in a related workably competitive markets context by the High Court in WELLINGTON INTERNATIONAL AIRPORT LTD & ORS v COMMERCE COMMISSION [14]. Specifically, the Commission had proposed that where an incumbent supplier uses long-lived specialised assets to supply services, then its costs will be lower than those of a HNE, i.e. it created a high barrier to entry that would prevent competition from entering the market. In the Fibre IM review the Commission equally argues that there are high entry barriers ("market is unprofitable"). Without competitive constraint on prices, the incumbent can therefore raise prices. However, the same objections to this proposition apply as it did to the reference case:

    a. the HNET is not an argument that relies on the threat of entry to constrain the behaviour of incumbents. Rather, it seeks to place a value on assets such that applying that value would result in outcomes consistent with those in workably competitive markets.

    b. The point of the HNET **is to assume away** barriers to entry. Its rationale is to find a means of discovering the costs that would apply to a supplier if it were in a workably competitive market.

    c. It seeks to place a value on assets that if applied would result in outcomes consistent with those in workably competitive markets. It assumes that a HNE would be purchasing new assets at their market costs when in the hypothetical framework the new entrants could purchase used assets, including from the incumbent. The price it would be prepared to pay in a workably competitive market would be the price of new assets (the replacement cost) less the additional costs of operating the old assets due to their shorter remaining lives, higher maintenance costs, less efficient configuration, and an expectation of earning ex-ante FCM based on the lower investment cost.

    d. it assumes that the incumbent's costs are lower than those of a HNE which, as explained above, is not necessarily the case. (They would be lower than those of a potential new entrant who had to purchase new assets and who would, of course, therefore not enter.)

32. In other words, the proposition that firms in workably competitive markets can raise prices when there is a threat of economic stranding (market is unprofitable) is based on similar fallacies i.e. that they must enter under the same conditions as the incumbent did, when in fact there are many ways that firms can compete with the incumbent to prevent price increases.

33. Further points against the argument that firms can raise prices are recorded in our cross submission on the 2023 IM review framework and process and issues paper. This includes the

[13] Specifically, that there would be no-one willing to enter a market facing decline and that therefore there is no competitive constraint on pricing.
[14] [2013] NZHC 3289 [543]-[547]

fact that price constraint is not just determined by the ability of new entrants to enter a market but by other competitive forces[15].

More on FCM and incentives for supplier investments

34. MGUG as consumers consider that FCM as applied, has lost the essential qualification that it is only an ex-ante expectation, applied across a market of suppliers. No individual supplier in a market can rely on FCM. The Commission says that FCM is not a guarantee, or a regulatory compact. But the Paper's support for compensation for the maturing of stranding risk on sunk assets (which is a supplier risk in competitive markets) appears to treat it as a guarantee. If suppliers do not carry a normal risk for themselves, why should they be assured a normal return or more?

35. MGUG notes the Paper's references to the consequences referred to in paragraphs (a) and (b) of s 52A(1). They appear to assume that an intent to preserve or to strengthen incentives to invest and to improve efficiency and to deliver satisfactory quality is sufficient to justify negation of the primary purpose – that the outcomes be consistent with those of competitive markets. A normal and expected outcome is that prices reduce when demand reduces more than supply.

36. The Paper also appears to assume that an intention to incentivize investment also outweighs the loss of price discipline consequences in paragraphs (c) and (d) of that subsection. But the Paper does not quantify the costs to consumers of excess supplier profit, to measure against the assumed benefits of more investment. And it scarcely acknowledges that in circumstances of threatened stranding by edict, few of the normal responses to investment returns can be assumed.

37. MGUG members seek the efficiency of services at reduced prices reflecting recognition of actual or impending demand reduction. They seek the normal competitive market recognition of a likely reduction in need for replacement, upgraded and new assets. Realistically there may be a lower likelihood of innovation in an industry seen as heading for a premature sunset, other than innovation designed to reduce the imminence of stranding.

38. The Paper needs two layers of theory to assume net benefit – first that higher returns will incentivise more investment, and secondly that more investment will result in the benefits set out in paragraphs (a) and (b).

39. FCM seems to have metastasized in the IM and DPP regime. MGUG asks that:

    a. The Commission now ensure that sustaining FCM expectations does not frustrate the law's requirement of regulatory simulation of competitive market outcomes, particularly for price[16];

[15] 202207 MGUG- Cross Submission on 2023 IM review Framework and Process and Issues papers-final, para 36

[16] See our discussion under S52A – paragraph 9 – price reflects all the outcomes under S52A

b. The Commission define its distinction point between ex ante and ex post. That might help simplify the problem, or at least clarify differences in understanding the basis of reasoning;

c. The Commission note that;

   i. MGUG members as consumers neither seek nor approve any subordination of our clearly expressed consumer interest in preventing exploitation of monopoly pricing power) to claimed necessity to maintain supplier's investment incentives in current circumstances;

   ii. MGUG as consumers do not ask for the proposed incentives for supplier investment;

   iii. We consider that normal pricing and revenue outcomes for suppliers, with the DPP regime contain effective sanctions against breaching prescribed reliability standards;

   iv. We consider the weight given to incentivizing investment to be perverse in a potential stranding environment. If it becomes clearer that there will be early termination of service by edict, MGUG members expect suppliers to reduce investment. They expect them to look for alternative uses and to defer expenditure decisions to preserve option values. As consumers they are doing the same things, appraising the same reasons for potential stranding.

40. Even if it was valid to set up potential necessity for FCM supplementation to maintain investment incentives, neither the Paper nor any evidence we have found shows:

   i. That the Commission's direct tools for incentivising adequate service capacity and quality are inadequate;

   ii. Current or indicated future underinvestment;

   iii. That the Commission has empirical confirmation that enhanced returns are an assurance of adequate investment and quality maintenance. As discussed later, AMPs may indicate to the contrary.

The stranding issue highlights a need for a decisive fresh direction

41. MGUG sees the Paper as a reflection of the Commission seeking to uphold a regime which has had broad policy integrity, while struggling with a contradiction created by a historical mistake. The mistake was in not closely limiting or defining what was implicit in the FCM assurance. The Paper has some acknowledgment of room to debate the current assignment of the cost of stranding risk to consumers instead of to suppliers. But there is not enough examination of the foundation assignment of risk and the ways it could be reversed.

42. MGUG says that the relevant aspects of the current BBM result in an attempt to make economic water run uphill. Rules are expressly designed to produce price increases for suppliers

as demand reduces cannot be reconciled with outcomes produced in competitive markets. Nor do consumers usually bear stranding risks in competitive markets

Asymmetry of risk?

43. MGUG members are aware of the CEPA update of OXERA work on asymmetry. We would observe that there has still been no establishment with empirical evidence, of the assumed connections between rates of return and sub-optimal levels of reliability investment. Further we would like to see evidence that if the assumed asymmetry exists, it would be proportionately addressed by investment incentives of the kind advanced in the Paper. MGUG members as sophisticated consumers ask that the Commission test such theoretical assumptions against the empirical evidence available (including some we have provided as is revealed supplier preferences in this submission).

44. Suppliers emphasize the imminence of stranding risk. The arguments for erring on the side of excess returns to respond to theoretical asymmetry generally acknowledge that the investment incentive effect is over the longer term. There is something paradoxical in urging a persistent bias toward returns above normal as precaution against underinvestment for the long term when stranding is the dominant risk. What long term?

Normal price responses to declining demand

45. In workably competitive markets:

    a. firms are price takers, not price makers, and the competitive dynamics achieve the outcomes described in S52A. We have seen nothing to establish why this outcome should not be the objective in gas delivery services. Absent regulation, monopoly suppliers have price-setting power. The law has determined they need price and quality regulation because there is little or no competition or no likelihood of a substantial increase in competition (s 52);

    b. declining demand is almost invariably associated with price reductions, not increases. We have seen nothing to establish that the outcome should be different in gas delivery services;

    c. prices reduce competitively as each supplier endeavours to procure that it retains an increasingly disproportionate share of the demand in an over-supplied market;

    d. the circumstances that threaten stranding are promptly reflected as reductions in the market value of potentially stranded assets - in liquid public markets recognised as share price changes showing expectations of lower earnings or lost residual (exit) value;

    e. suppliers with assets threatened with stranding can expect to earn their cost of capital on them going forward, but on the reduced asset value after recognition of the stranding risk;

    f. hence, suppliers and those who invest in them, not their consumers, carry the cost of stranding risks.

g. consumers bear the cost of stranding risks only to the extent (if any) that it affects the industry cost of capital to suppliers, and it is an element of pricing. At some point in the progression toward stranding, pricing may cover only variable costs.

46. The current IM and DPPs negate all those outcomes through deliberate policy. It is purportedly to satisfy the s 52A requirements to promote outcomes that provide "incentives to innovate and to invest, including in replacement, upgraded and new assets" and to "improve efficiency and provide services at a quality that reflects consumer demand".

47. Those are commonly consequences of workably competitive market pricing disciplines. The reversal of those consequences to pursue an over-riding FCM instead is an error. We see in the Paper numerous repetitions of the phrase "ex ante" with respect to FCM and to current or potential compensations for situations where the expected FCM is not delivered. But there is no definition or exploration of what distinguishes 'ex ante' from 'ex post'

48. Proposals to continue making consumers carry the stranding risk, or to compensate suppliers if it is passes back to suppliers, subordinates the interests of consumers to achieve lower prices by restricting the supplier ability to "extract excessive profits", to supplier interests to achieve the opposite. (Consumer welfare is made paramount by the Act)

Our evidence on what is in consumer interests.

49. We as major consumers, can assure the Commission **that our main interest if stranding risks mature is in price reductions** and the end of abnormal profit-taking by suppliers:

a. They rank in our priorities far ahead of "improved efficiency".

b. The hoped-for quality of service effects of revenue assurance is overstated. We consider that the sanctions available to the Commission for quality failures, the legal liabilities of suppliers and their officers for safety breaches, and supplier brand reputation risks, are far more significant and reliable incentives;

c. We do not seek more incentives for suppliers facing stranding, to invest in "replacement, upgraded and new assets". The stranding risk is that the entire industry will be closed down prematurely. None of us want new investment past the point of rational spending to safely adhere to quality standards for the reasonably foreseeable future.

Consumers carrying the risk of stranding is inefficient

50. We as consumer businesses in competitive markets have no firm FCM assurance, collectively or individually, to protect us against stranding risks. If we are also made to carry those of suppliers, we have no means to mitigate them. Suppliers also lose the right incentives to mitigate and it creates moral hazard risk where suppliers overinvest knowing that any losses will be paid for by consumers. The Commission has some power. We have little or none. It is not an efficient allocation of the risk. The Paper's discussion in 3.98 to 3.101 recognises this.

Firm conduct in competitive markets - summary

51. Firms in workably competitive markets cannot raise prices to compensate for ex-ante or ex-post losses. The risk of ex-post losses are part and parcel of doing business and are not recoverable from consumers through higher prices. Instead, firms impair their assets to their market value rather than their carrying value. This adjustment leads to losses that are partially compensated through a lower tax expense, with the balance absorbed by the firm/ shareholders, not consumers. The adjusted carrying value of assets going forward is what resets the new ex-ante FCM expectation.

52. The belief that regulated firms are entitled to ex-ante FCM compensation for downside losses because their upside profitability is capped relative to non-regulated firms is based on a wrong premise. The definition of ex-ante normal profits (NPV=0) and the regulatory framework supporting it gives regulated firms the overall return equivalent of non-regulated firm's upside opportunities and downside risks. Further downside protection is not justified on either theoretical or empirical grounds.

53. Economic stranding risk is mitigated and managed through timing options, creation of strategic options on asset utilisation, and life extension of existing assets. These mitigation techniques have already been used by regulated suppliers. This approach benefits both suppliers and consumers and is consistent with what is seen in workably competitive markets.

54. In relation to gas delivery services, it may help to reframe the risk of declining demand as revenue risk. That may help keep in mind the realities of revenue composition, elasticities, and risk tolerance between different gas market segments. This is particularly pertinent given the possibilities for GPBs of Ramsey pricing.

55. The Paper does not exclude the possibility that GPBs could maintain or even raise revenue while volumes of gas transported decline. GPBs incentivised to maintain or increase investment could grow their total RAB. They can acquire assets with lives within the expected span to extinction of demand. That is, on its own, an intended outcome. But if other assets can remain within the RAB as they become obsolete, redundant or stranded, consumers face increasing costs without a relationship to services or the real costs of providing them. They may have no added quality (including reliability) of service.

56. It could be important to distinguish the revenues of individual GPBs, and distinguish between gas distribution (GDB) and gas transmission (GTB). Stranding or demand and revenue deductions will affect them differently. Revenues also need to be further segmented between the different consumer classes or load groups. Without it, conclusions on the overall GPB revenue risk may be superficial. Without carefully connecting 'compensations' to risks or costs actually being incurred or faced, compensations may go to businesses that are not suffering.

57. The perverse impact is worse because the transfer of what is and should remain supplier risk is funded by consumers facing similar or more severe risks of stranding. For example, consumers face carbon cost loadings intended to reduce the use of gas. They need to fund alternative energy technology. If they are fixed with compensating suppliers for their stranding risk, such consumers may carry the burden of artificial imposition on them of what should be GPB asset

value write-offs on assets threatened with stranding, as well as losses on their own stranded assets.

58. We need to see modelling that tests the application of any proposed demand risk compensation against a range of scenarios. Most importantly we need to see modelling that assumes a wide range of times and rates of demand decline, and stranding.

59. The Paper's proposed compensation alternatives are offered conceptually. They should be offered with indicative examples, applying actual information drawn from ID, and assuming different future scenarios. They should expressly recognise the probabilistic nature (uncertainty) of different pathways. The future is uncertain. Modelling should set out to learn the sensitivity of intended outcomes of the proposed compensations, to various market conditions and the unexpected.

60. Those drawing conclusions even from disciplined modelling should remain very humble about their ability to foresee the future. That says there should be strong bias toward caution about premature action. Where-ever possible option values should be preserved.

61. For example, current demand expectations for EDBs are the opposite of the expectations prevailing just before and around the 2016 IM reset. At that time a strong consensus thought that distributed generation and other technology was going to reduce utilisation of the EDB networks. There were demands to enable precautionary recovery of losses expected when they were reduced to serving only the residual demand of major consumers not able to rely on the emerging technologies. Now of course EV and other new demands (ironically including through reduced gas demand should it come to pass) are projected to require major new EDB reticulation investment.

62. MGUG believes that price controls should strive to simulate the competitive market dynamics that inhibit front loading of expected costs onto current consumers, and minimize the shifting of risks for uncertain future events to current consumers. An ability for suppliers to shift their risks is characteristic of the monopoly markets described in s 52. The Commission is instead to simulate the competitive markets of s 52A. That simulation should result in suppliers writing off stranded assets as they would have to if they were not under the price control regime – in other words the regime should not enable suppliers to treat the regulated return on the RAB irrespective of practical stranding, as justification for avoiding an uncompensated write-off.

Commission objectivity on timing and severity of stranding impacts

63. The Commission should look at the *empirical evidence* on how firms behave in workably competitive markets, including their control over prices.

64. Professor Yarrow in reviewing claw back issues for Orion noted an expectation that prices should fall, not rise as demand falls[17]. Firms should *lower* their prices when demand falls. As

[17] Yarrow review of claw back issues Orion CPP 30 May 2013 – p13, para 3 https://comcom.govt.nz/__data/assets/pdf_file/0024/63186/1582851-Yarrow-Further-advice-on-clawback-4-August-2013.PDF

long as the price exceeds the marginal short run cost, the firm will be maximising its revenue by doing this.

65. While it seems logical that prices should lower under this scenario, we also accept that they might remain the same, based on the price taker argument. What does seem self-evident and uncontroversial is that unilaterally raising prices *is not an option* in workably competitive markets.

66. MGUG has looked for evidence that the Paper writers have tested their implicit scenarios against observable behaviours. For example, what do ID reports and AMPs show as revealed preference or revealed 'skin in the game' beliefs about the likely timing and impact of anticipated demand reduction events? AMPs may be empirical evidence on suppliers' central beliefs about the likelihood and urgency of stranding.

67. What is the Commission using to weigh the credibility of current agency and political statements about future policy? Does the Commission consider the possibility of changes in New Zealand's Paris commitments, and corresponding changes in legislation? If not, why not, when participants in competitive markets, and the real incentives on investors cannot thrive without such realism? MGUG is advised that the Commission is not prevented from considering such possibilities among the factors to be weighed in deciding how to act, and when.

68. A deep discount for time (sceptical weighting for realism) would seem to be justified, for some politically driven 'commitments' around the world, on climate change policies that will adversely affect consumers in democracies. MGUG is advised that the Paris commitments, unlike the Kyoto commitments before them, allow substantial 'wiggle room'. Definitions vital to the effective dates and requirements of commitments were omitted. Parties faced with democratic political pressure are likely to use that wiggle room. And even countries that do not wish to slow down climate change measures, may be obliged to avoid destroying their economies because others have reneged. For example, countries could decide to measure performance on carbon implicit in consumption, not production, to recognise the burden on countries that export carbon intensive products.

69. Does the Commission know whether there is a mismatch between stated current intentions of agencies to compel reductions in gas use, and the actual expectations of consumers and suppliers? For example:

    a. Consumers are continuing to show confidence in the future of gas as evidenced by connection growth[18].

    b. Suppliers continue to forecast further connection growth in their 10-year Asset Management Plans (AMPs).

    c. Suppliers have adapted their asset management strategies. They continue to invest in replacement/ renewal to maintain safety and reliability of their networks. Asset management plans have shifted towards the greater use of timing options in their

[18] A point we continue to demonstrate in our submissions, particularly to counter supplier assertions (they present without evidence) that consumers in aggregate are pulling back from investment in gas appliances.

investment strategies. Asset management strategies have altered further to look for ways to extend asset lives and to use shorter design lives on replacement/ new assets (without affecting reliability/ safety standards).[19]

d. Suppliers are investing in projects that give them strategic option to repurpose pipelines for transport of lower or zero carbon gases.

70. Prudent objectivity might suggest that such information need not affect the expected long-term outcomes, but it might drastically affect the speed of decline, or even its onset, and accordingly the imminence of stranding. Such prudent objectivity could support measures to reinforce or at least not to run contrary to incentives to maintain capacity.

Prematurity of compensations

71. Greater objectivity about the timing and degree of measures to reduce demand could highlight the risks and costs of prematurely loading a current generation of consumers with excess cost, and facilitating the extraction of excessive profits. MGUG wants evidence that the Commission fully appreciates the risk of unintended or premature consequences from interventions. The Commission is well placed to monitor consumer risk of reliability reduction, from changes in prescribed quality indicators. It may scrutinize supplier AMPs to assess whether pipeline integrity and reliability is being compromised through underinvestment.

Has accelerated depreciation assisted CAPEX commitments?

72. A useful check for the Commission's paper premises, is whether "additional incentives" for suppliers (accelerated depreciation) have caused suppliers to boost their CAPEX spending to support their quality measures for consumers. This check can be done by comparing GPBs CAPEX intentions pre, and post, the Commission's decision[20].

73. GPBs produce 10-year forward looking AMPs every year as part of the Information Disclosure regulation under Part 4 of the Commerce Act. The purpose of the information disclosure (S53) is to ensure that sufficient information is readily available to interested persons to assess whether the Part 4 purpose is being met. A GPB's AMP is a ten-year plan that sets out how the GPB intends to manage its assets. This includes:

a. How it will meet its service and performance targets,
b. The considerations behind its investment and operating decisions, and
c. The way that it intends to manage risk.

[19] https://firstgas.co.nz/about-us/regulatory/ Stakeholder Webinar 2022 16 November - from time stamp 16:25 to 18:45. This is also repeated in the commentary of Powerco's 2022 AMP (section 5.2).
[20] We have done this exercise by comparing CAPEX plans for the categories; *Asset Replacement and Renewal*, and *Reliability, Safety, and Environment* since these are the two categories the Commission was most concerned about in terms of asymmetric risks of underinvestment.

74. The AMP also contains:

    a. Details of network assets,
    b. Planned network developments,
    c. Future maintenance needs, and
    d. Forecast expenditures

75. While it is understood that in a dynamic environment there can be no assurances that GPBs will fully implement their plan or undertake the work mentioned in the document, it is equally accepted that the information in the document is prepared in good faith and represents GPBs' intentions and opinions at the date of issue. Given that AMPs are updated annually these provide useful frequently updated snapshots implicitly indicative of GPB risk perceptions.

76. The 2021 AMPs were produced before the Commission determined to allow for accelerated depreciation. Has the Commission compared them with those produced after that decision on accelerated depreciation[21] ? They could show an effect on risk perceptions and activities by the decision. The 2021 AMPs were prepared after the CCC's final advice which was generally seen as hostile to the role of gas in New Zealand's energy system, but before the CCC's ERPs that kept the door open for continued use of gas (including renewable gases) [22]. If such agency views are significant and regarded as compelling by suppliers, who have the strongest incentives to be informed and realistic the 2021 AMPs should reflect a higher risk perception by GPBs of gas demand decline (although not necessarily revenue decline) and a greater caution in CAPEX intentions.

77. If the Commission was correctly apprehending a potential for supplier under-investment because of demand risk, before the grant of accelerated depreciation, we should expect more that after it (other things being equal) we would see more supplier commitment to CAPEX in their new *10-year forward* plans.

78. The opposite occurred. Suppliers opted for *less* CAPEX in their Asset replacement and Renewal, and Reliability, Safety, Environment CAPEX categories[23] . Collectively, GPBs are intending to spend $20 million less during RCP3, and $37 million less over the period 2023-2031 (Figure 1).

[21] See Schedule 11a: Report on Forecast Capital Expenditure

[22] The ERPs were notable for being more open to gas continuing to be part of New Zealand's energy mix. Gas connection bans were not announced and pathway for gas left open for MBIE and GIC to consult with industry on gas transition pathway. In other words, the risk perception for gas demand destruction should have altered to lower the risk of economic stranding.

[23] Workings showing the results available on request. The workings were done using Schedule 11a (report on forecast capital expenditure) in the AMPs and can be easily replicated. Note the exception for First Gas transmission across the 10-year period which showed no change.

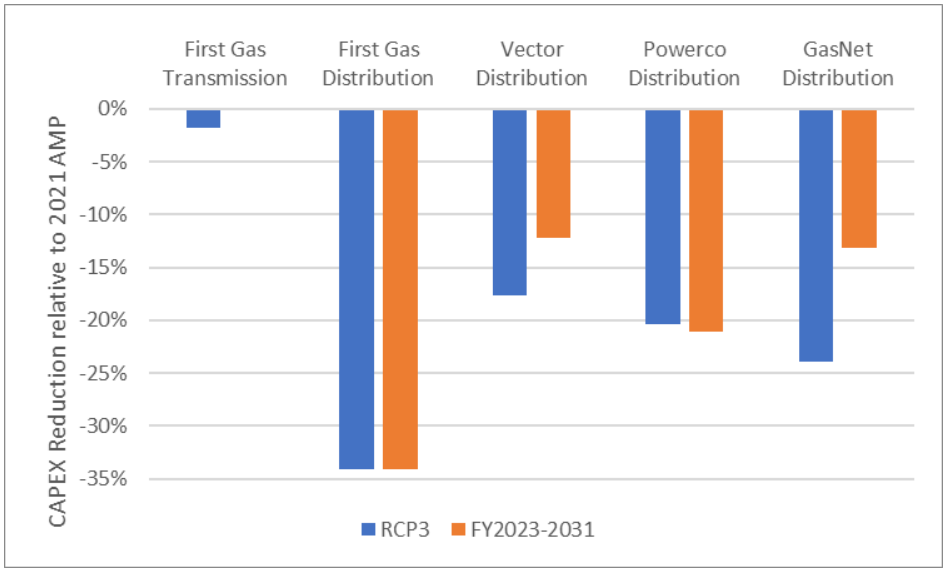

Figure 1: CAPEX difference 2022 AMP vs 2021 AMP (based on $2022) – source GPB AMPs

79. MGUG sees this as a matter requiring careful investigation from the Commission, and explanation. It could be that other things are not equal, that the official agency statements had less to do with supplier expectations than other information. If so, that should tell the Commission to be more wary in its own reliance on official and agency statements.

80. Ironically, as explained by Firstgas,[24] one contributing factor for lower investment has been the Commission imposing CAPEX constraints on GPBs through the DPP3 review. It seems peculiar that the Commission has justified increased prices to consumers to improve incentives to invest, while exercising supervisory discretions to restrict such investment. This demands more explanation.

    a. How does the Commission discern whether it is demand uncertainty, or regulatory capping of CAPEX that creates a risk of under-investment?

    b. Has any element of what the Commission fears will be likely under-investment been identified with confidence as a reliability or quality risk to consumers?

    c. How did the Commission exercises inject that risk to consumers of under-investment, into the exercise of its power in 2022 to consider and cap CAPEX?;

    d. Is there information that will show whether and when a Commission cap on CAPEX is undermining service quality?

81. These questions are not rhetorical. These are very serious. The Paper proposes a range of ways to impose on consumers the costs of higher returns to suppliers, justified solely by a claimed need to sustain incentives for new investment (given that the other claimed reason is FCM, but proposals that include historical RAB are for ex post compensation and are not part of ex ante

[24] https://firstgas.co.nz/about-us/regulatory/ Stakeholder Webinar 2022 16 November - from time stamp 14:00 to 16.22

FCM). We need to know whether the means used to decide on CAPEX constraints can also take into account the risks feared to flow from leaving suppliers to suffer only normal investment returns (that is without compensation for maturing stranding risk).

82. The reduction in CAPEX intentions shown in the latest AMPs seems to have been compensated with higher OPEX forecasts. $11.5 million more is being spent on Network Maintenance in RCP3, and $34.1 million more over the period 2023-2031 (Figure 2 and Figure 3). This is consistent with Firstgas' explanation of looking at life extension of existing assets rather than replacement, as well as adopting shorter design lives of replacement assets[25]. It's behaviour we would also expect to see in workably competitive markets.

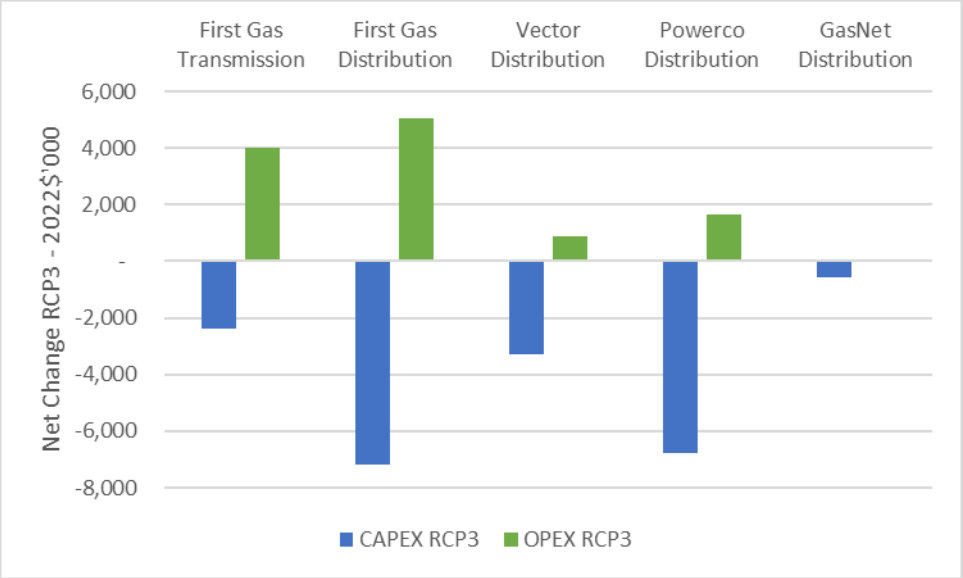

Figure 2: CAPEX and OPEX trade-offs RCP3 (based on $2022)- Source GPB AMPs

[25] From the previous footnote reference

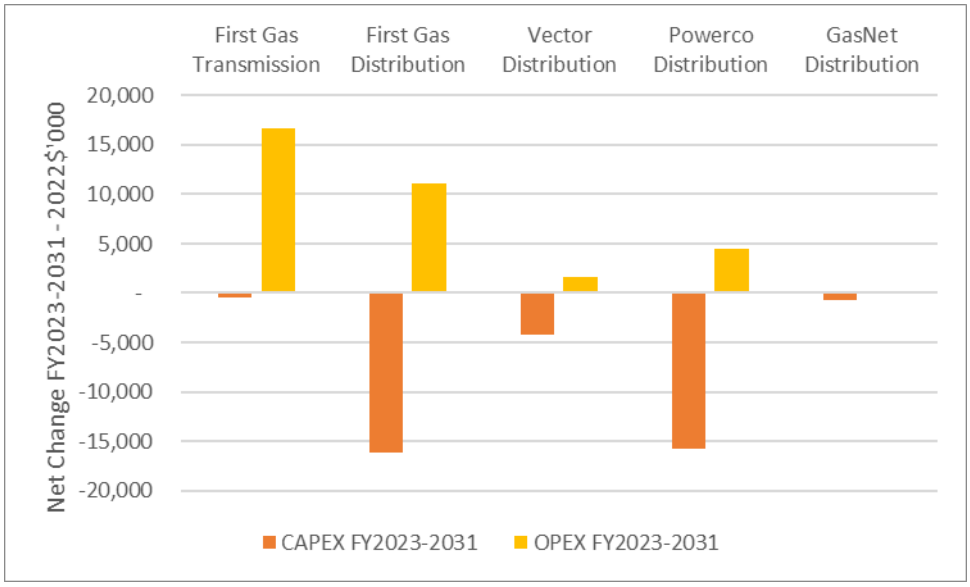

Figure 3: CAPEX and OPEX trade-offs FY2023-2031 (based on $2022) – Source GPB AMPs

83. The gas IM amendment gave GPBs an additional $156 million in revenue over RCP3 through accelerated depreciation[26]. This additional revenue seems intended to go to reducing GPB debt and/or to shareholder dividends[27], i.e. to increasing supplier profitability. We think that before the Commission proceeds with proposals for more 'compensation' to incentivise investment for the benefit of consumers, it should satisfy itself and show how last year's experiment in incentivising with higher returns, has produced benefits for consumers.

84. As major consumers we have seen no evidence to make benefit to consumers likely, or to show a necessity for the extra incentives to invest, whether or not it will benefit consumers. We oppose them and on the basis of the quality control elements of the DPP regime, accept the risk of the alleged adverse consequences for us.

85. In summary, after accelerated depreciation was assured:

    a. *Lower* CAPEX intentions have been signalled for asset replacement and renewal as well as for reliability, safety and environment. This might be because the Commission has capped allowable CAPEX. But it could be because GPBs are preferring and finding ways to extend asset life through alternative maintenance strategies that benefits both consumers and suppliers, that they have incentives to do without the accelerated depreciation.[28]

[26] $156 million is the difference between the maximum allowable revenue for the periods 2023-2026 "with mitigation" and "no mitigation" financial models that the Commission produced in its DPP3 decision.
[27] For example, debt reduction is noted as a priority for Vector. https://www.nbr.co.nz/hunters-corner/vectors-deal-or-no-deal-moment/ notes "Also at the AGM, Vector chair Jonathan Mason made a clear link between a deal on metering and the company's need to reduce debt."
[28] For example, by investing in more condition monitoring.

b. AMPs seem to show GPBs remaining committed to meeting their quality standards, so consumers aren't experiencing reduced quality because of lower CAPEX intentions[29].

c. GPBs are using the additional cash from accelerated depreciation of sunk assets to improve their balance sheets and support their dividend policies [30].

86. In other words, the apparent effect of accelerated depreciation (as a supposed necessary incentive to asymmetric investment risk) has been to increase supplier profitability at the expense of consumers. This is a materially worse outcome for consumers with respect to S52A[31] (as well as S52R[32]).

87. The experience since the accelerated depreciation decision offers no support for more, or alternative mechanisms for "compensations".

Experience of stranding – empirical evidence

88. MGUG members experience stranding. They know empirically why firms are not free to raise prices ex-post to compensate for potential economic stranding risks in workably competitive markets. All our members operate in such markets (fertiliser, steel, milk products, pulp and paper).

89. For example, Ballance faced an economic stranding risk in the early 2000s as a result of potentially uneconomic gas supply. They could not recover economic losses through unilateral imposed price increases.

90. In 2002, 2003, and 2004 Ballance gradually wrote down the value of the Ammonia Urea Plant, at a time gas shortage and high gas price meant that domestic production of urea might not be economically viable. On the basis of economic life impairment, depreciation was accelerated in 2002, and impairments of $20 million were made in each of the 2003 and 2004 years[33].

> *Depreciation rates on the urea plant assets were increased in 2002 following reassessment of the life expectancy of the Maui gas field and the resulting effect on the residual value of the plant. In 2003 Maui gas field reserves were re-determined and the estimated field life shortened by a further two years to 2007. The Directors consider it prudent to recognise the uncertainty of future gas prices and supply and have made a $20 million impairment write down of the carrying value of the Kapuni ammonia urea facility buildings, plant and spares (refer Note 18). Gas market developments during the current year have increased the uncertainty of the Group's ability to secure gas at an acceptable price beyond the current contract period and a further $20 million impairment write down of the Kapuni plant carrying value has been made in 2004. The residual value is now conservatively aligned to the economic value based on contracted supply to May 2005*.
>
> Notes to Financial Statements for the year ended 31 May 2004

[29] As evidenced by GPBs risk management strategies and statements in their AMPs
[30] 202207 MGUG-Cross Submission on 2023 IM review Framework and Process and Issues Paper – para 25-26
[31] The Commission's modelling showed a transfer of $156 million for RCP3 from consumers to suppliers as a result of the decision to accelerate depreciation
[32] The multiplier factor that can be altered by the Commission at each DPP reduces certainty for suppliers.
[33] Reference Ballance Agri-nutrients annual reports.

The effect of the accelerated depreciation and impairment write downs reduced their surplus before tax and hence their tax expense. The reduced surplus (lower profits) **could not be recovered through the price of the product** since Ballance was a price taker in a competitive global market for the Urea product[34]. Shareholders, not consumers bore the consequence of the accelerated depreciation and asset stranding risk.

91. NZ Steel had $156 million of asset impairments in its FY2020 reflecting write-down of plant equipment[35]. This was reflected in the reduction of net profit in the annual statement (i.e. it created a loss relative to no impairment). The accounting adjustment did not create an ability for NZ steel to raise its prices to recover this loss[36]. It should be further noted, to address the Commission's assertion that "unprofitable markets" deter new entrants and that this is what allows firms to raise prices when impairing assets[37], that NZ steel did not face the threat of a new entrant entering the New Zealand market to build a competing facility.

92. This is the reality for all of our members. They face economic stranding risks on their coal or gas assets from government policy settings. The prices for urea, processed milk, steel and pulp and paper are set in competitive global markets. Impairing the value of domestic assets creates no opportunity to raise prices in the domestic or overseas markets. Rather the market price restriction is created by overseas firms using overseas assets to maintain price competition in the domestic market.

93. Domestic electricity generators face the same situation with respect to gas generation equipment facing shortened economic lives[38]. It is self-evident and uncontroversial that the competitive nature of the electricity market means that those generators cannot raise their prices to compensate for ex post FCM losses.

94. We are aware of no empirical support for assuming anything other than that the *tendency*[39] in strongly competitive markets is for firms ***not*** to be able to raise prices ex post as compensation for losses from an ex ante decision.

[34] The loss gave some tax shelter.

[35] http://epublication.net.au/bluescope-ar-2020/ Total impairment write down was $197 million including $5M as a result of planned closure of the New Zealand Steel pipe mill, $36M write-down of spares and $156M impairment of the NZPI cash generating unit. In this case, as for economic stranding risk, the adjusted value of the assets was being marked to market, reflecting its expected economic value, regardless of the actual physical life of the assets.

[36] In essence it was lower prices for its products over the business cycle that created the impairment.

[37] Fibre input methodologies: Main final decisions – reasons paper 13 Oct 2020 – para 6-996

[38] Even if gas generation assets continue they are likely to face a significant reduction in demand for their use as more renewable generation comes on stream. These assets also face an ex-post FCM loss through declining demand.

[39] Input Methodologies (EDBs & GPBs) Reason Paper – 22 December 2010 para 2.6.17 notes that workable competitive markets doesn't require specific, precise outcomes, but rather can be described by tendencies.

95. Ex-post compensation for ex-ante decisions isn't consistent with the principle of ex-ante FCM. We refer the Commission to our earlier submission.[40]

How *do* firms react to risk of economic stranding?

96. In summary, the following is what we observe happens in workably competitive markets, and also what can be seen in regulated suppliers in New Zealand.[41] [42]:

    a. Existing assets are impaired or accelerated in depreciation. The capital losses generated are absorbed by the firms while the forward carrying value of assets reflect the new ex-ante FCM expectation.

    b. Firms look to extend asset lives by adapting maintenance philosophies, such as investing more in condition monitoring techniques or derating the equipment service (e.g., lowering the pressure that equipment runs at).

    c. Firms look to create new opportunities (options) for revenue from use of existing assets (repurposing)

    d. For new assets, forward CAPEX and OPEX are selected to give an expectation of ex-ante FCM. CAPEX may be deferred, or reduced (cheaper options looked for and/or with shorter physical lives)[43].

    e. Prices are determined by workably competitive market forces (including substitutes) Firms are price takers, not price makers. Prices stay the same or reduce.

BBM and treatment of depreciation

97. As noted in the EDB-GPB Input Methodologies Reasons paper, the ex-ante FCM/ NPV=0 principle for monopoly businesses is a principle to put a constraint or limit on the restrictions that implement Part 4 S52A (1)(d) (*are limited in their ability to extract excessive profits*)[44].

> *The **main reason** economic regulation is required is to counter the market power of firms (i.e. the ability of firms that are not faced with competition or the threat of competition **to charge excessive prices and/or reduce quality)***

This rephrases the 2013 High Court decision that "*Prices are, therefore, at the heart of Part 4 regulation*" when considering what workable competition outcomes meant[45]. In other words

[40] 202207 MGUG- Submission on 2023 IM review Framework and Process and Issues papers-final, notably pp 10-11

[41] A number of the following strategies is what we see in supplier AMPs.

[42] It's also important to relate outcomes to the NZ statutory framework. Looking at outcomes in other jurisdictions is only useful if the underlying legislation provides for the same outcomes. For example, we've already pointed out that the Gas Law in Australia requires that the AER provide for an ex-ante FCM compensation mechanism. Part 4 and the various legal decisions create a different context and outcome for NZ regulated suppliers. That limits the usefulness of what can be borrowed from other regulators.

[43] While this may not seem efficient on an ex-post basis, it is an efficient outcome on an ex-ante basis, since it creates an option that the asset won't be replaced

[44] Commerce Commission, December 2010 EDB_GPB Input Methodologies Reasons paper – para 2.6.32

[45] [2013] NZHC 3289 [11 December 2013] – para [29]

when we look at competitive market outcomes, we should look at what their price outcomes are[46].

98. The BBM methodology is what determines the allowable revenue (and hence price to consumers) for regulated firms. It is designed to control prices such that firms are limited in their ability to extract excessive profits. Ex-ante depreciation expense (return of capital) is one component that determines allowable revenue, and provides for the ex-ante return of capital, as well as the return on capital allowed for in the cost of capital to ensure that NPV=0.

99. Depreciation rates are set ex ante. The BBM methodology recognises the significance of ex post (subsequent) changes in depreciation assumptions and methods. **Economic stranding risk maturing is an exception**. It is not provided for in the BBM, which assumes standard physical asset lives will be economically recovered (that economic life matches the physical life).

100. The BBM needs to reflect the loss when an economic life is materially shortened relative to physical asset life in the FCM assumption. That is, to produce outcomes consistent with the tendencies of workably competitive markets. That will mean prices to consumers to lower when they should. Instead, the current and most of the proposed 'compensations' have prices rising when they should lower for competitive market consistency.

101. Any implied (but denied) regulatory bargain to the contrary is invalid, and wrongly purposed in what should be a model to simulate the outcomes and incentives of competitive markets.

102. To summarise from our examples, a business in a competitive environment will adjust the asset depreciation schedule based on the expected economic life (market value) of its assets. Where an asset is deemed to have a shortened economic life, the asset might be depreciated more rapidly or even impaired/written off. It reduces immediate profitability, but it also reduces the remaining book value of the asset. That is likely to parallel a market recognition of the loss and accordingly reduce the capital on which the return is required. The required return on capital going forward does not need to be reset to maintain the ex-ante FCM expectation. The cost of accelerated depreciation is borne by shareholders, not consumers. Contrary to the Commission's mechanics of the BBM for regulated firms, accelerated depreciation does not enable firms in workably competitive markets to raise prices.

Conclusions

103. This part of the submission dealt with the Commission's underlying assumptions framing the paper. Our conclusions from examining the underlying premises are:
    a. We negate the asymmetry argument that has been the justification for offering more than ex ante compensation to sustain FCM when in a competitive market there is no such assurance:

[46] It is implied that competitive prices also achieve other consumer outcomes (innovation, investment in maintaining quality, efficiencies, and prevent excessive profits)

i. Regulated firms are capped at a normal return defined by what happens in workably competitive markets. The restriction on regulated firms' upside is only on their ability to earn economic rents. This is a feature, not a bug of S52A and the provision offers no special favours or disadvantages to suppliers.

ii. Regulated firms should face the same downside loss potential as firms in workably competitive markets- if they are to earn a return regulated by reference to firms in competitive markets.

iii. Raising prices to increase the return on sunk assets is not expected in workably competitive markets when faced with economic stranding risk. Instead, the expected outcome is a tendency to lower prices to consumers as the stranding circumstances reduce demand, to postpone greater revenue loss

b. The BBM needs adjusting to require write offs from the RAB as stranding risk is recognised. This is to simulate price outcomes and incentives on suppliers with what happens and applies in workably competitive markets.

c. A hypothesis seems to infuse the Paper that suppliers are underinvesting in maintaining network services or will, and that they will need more revenue than the regime currently permits, as an incentive to end or avoid that under-investment. The Paper offers no empirical evidence in support. Nor does the Paper suggest that such evidence will be sought. That needs to be remedied

i. It appears that the additional revenue from accelerating depreciation through the gas IM amendment is going to benefit supplier equity holders (reduce debt or pay dividends).

ii. Use of accelerated depreciation revenue to reduce underinvestment is not demonstrated in supplier 10-year asset management plans. The opposite is shown. Investment intentions have lowered in the 2022 AMPs despite additional information suggesting a lower risk concern.

iii. As we would also expect to see in workably competitive markets, supplier AMPs are demonstrating accepted strategies for mitigating investment term risks without sacrificing quality:

(i) They are investing in creating timing options (using shorter physical asset lives in asset selection).

(ii) They are extending asset lives using condition monitoring to set new replacement schedules.

(iii) They are increasing their asset OPEX to maintain reliability and asset integrity.

(iv) They are investing in creating strategic options for asset repurposing.

(v) They derate equipment to extend asset lives and lower OPEX.

iv. Consumers are materially worse off when supplementary “ex-ante” FCM compensation is given to suppliers, without establishing any reliability or other benefit to consumers.

Reframing declining demand risk to GPB revenue risk

104. It is not clear from the Paper whether the Commission intends to revisit the evidence on demand decline in this IM review given that it covered this topic in the DPP3 process. The reasoning released to support DPP3 clearly indicates that it would.

105. MGUG has covered the question of the relevance of declining volume demand on network economic stranding risk extensively through its submissions in the DPP3 review[47].

106. The Commission in its current paper doesn't present an explanation of what it means by declining demand or how this is expected to affect supplier investment decisions. Instead, it offers the starting position that the current gas IM was changed because the widely expected decline in the long-term use of natural gas is likely to mean the average remaining economic life of the assets is shorter than their average physical life[48].

107. We have previously pointed out that demand/ supply uncertainty isn't unusual, and is rather, a characteristic of the New Zealand gas market since at least the Maui redetermination in 2002[49]. Gas production profiles have continuously forecast precipitous drops in supply (and therefore demand) 3-5 years in advance with gas always "running out" 10 years into the future. These closer near-term outlooks (rather than a 30-year outlook which is the Commission's focus) haven't shown up materially in GPBs investment plans before, and there is no evidence that GPBs have substantially shifted their investment intentions over the next 10-years in the face of Climate Change legislation or other government policy.

108. We acknowledge the Paper addresses a *hypothetical* scenario of declining demand, rather than, as was the case in the gas IM amendment, an assertion that demand *will* decline to the extent that GPBs have a heightened risk of asset stranding. Nevertheless, our objections to the framing of the issue still remain:

    a. Demand (volume) risk is not a straightforward proxy for revenue risk which is what influences investment decisions and determines Commission DPP settings. While we might expect a positive correlation between demand and revenue, there is no reason to assume that any decline has a fixed and equal timeframe over which it might occur, that the relationship is perfectly correlated, or is linear in its effect.

    b. Revenue risk differs for different segments of the gas market, within and between, different GPBs, and is not proportional to demand. Typically, the smallest volumes create the largest revenue streams for GPBs. Revenue risk to distribution networks is also different from revenue risk for gas transmission. We pointed to the relationships in our earlier submissions in the DPP3 process, and in particular noted the stability and higher confidence in GDB revenues as well as linking the importance of GDB demand to GTB revenue[50]. If the Commission is intending to do further modelling work in this

[47] Particularly, 202109 MGUG- Cross submission on DPP Process and Issues Paper
[48] Para X6
[49] Most recently in our cross submission *202207 MGUG Cross Submission on 2023 IM review Framework and Process and Issues Paper* para 7-13
[50] 202109 MGUG-Cross Submission on DPP Process and Issues Paper-Final

review it needs to apply revenue forecasting that reflect the structural connections between demand and revenue and different demand risks of the gas sector before coming to any meaningful conclusion on overall risk. It is self-evident that there is a wide range of feasible scenarios and speeds of stranding, including changes that eliminate stranding as a significant risk.

c. Demand/ revenue risk perceptions change with time through new information. Based on the Emission Reduction Plans which avoided the most onerous recommendations on discouraging gas demand (including gas connection bans), and various Ministerial statements acknowledging that gas is expected to continue to have an important role in the energy transition, as well as further lack of political consensus on means to reduce emissions we argue that overall demand risk perceptions, particularly in relation to time horizons, have further lessened since the gas IM amendment. This lower risk perception also continues to be reinforced through GPB 10-year asset management plans that continue to show demand growth[51].

109. The Commission, based on what we've been told is its legal advice[52], has considered itself not able to give any real weight to the potential that gas pipeline services could continue with lower carbon gases well past the assumed 2050 economic stranding event. This is unfortunate when evidence before the Commission shows that GPBs are factoring in gas transition opportunities into their business planning to extend the real economic life of their assets[53]. Effectively GPBs are creating a call option on their network investment that extends their future revenue beyond economic stranding of "natural gas" pipeline services.

110. We ask that the Commission advocate a legislative clarification of the legislation[54]. Is there room in the meantime to include an estimated value of the GPBs' call option when assessing stranding risk against residual value of the network? If the issue is assessing *economic* stranding, then can residual value also be an *economic* value test, not a residual book value of assets which the Commission used as the residual value test in the gas IM amendment reasoning.

Risk Perceptions

111. The Commission travels down a familiar road when it tries to explain why it is concerned about declining demand as a consequence of Climate Change legislation and how the landscape might look in 30 years' time. We've covered our response to this framing in the DPP3 process, particularly our submission explaining how the CCC gas demand assumption is neither a forecast nor a prediction, but rather that its purpose is to meet the statutory requirement to "demonstrate" a plausible basis for its recommendations for overall national emission targets [55]. We ask that the Commission make it clear that it is objective on the risks. The CCC outcome

[51] GPB AMPs also demonstrated demand growth expectations during the DPP3 process.
[52] As we understand it
[53] This includes for example a statement from Firstgas' CE on their ongoing work to repurpose their gas network.
[54] MGUG pointed out how S55A in the current context of 2022 vs 1984, undermines the intent of S52A and S52B. While the Act has provisions to keep it updated and relevant to reflect changing circumstances these haven't been exercised.
[55] 202108 MGUG-Cross Submission on DPP Process and Issues Paper

for gas is possible, but it is one possibility among many, including that gas demand may not change materially or might even might increase to 2050. The appropriate sector stance is to monitor new information, and create and use options, but not to exercise them until needed.

112. GPBs are continuing, albeit cautiously, with their asset investment, including growth investment, can be explained by their different risk perceptions. Consumers too appear to be sceptical about an early end to gas usage.

113. We've already described how taking a market sector approach defines different risk perception. The further context is that:

    a. The CCC, nor the Government have proposed that gas should no longer continue as part of the energy mix beyond 2050.

    b. The CCC advice will continue to evolve. Its recent ERP has left the door open for gas to continue past 2050 as its mandate is to set national targets, not dictating and enforcing sector targets. Gas has the lowest carbon intensity of fossil fuels and where gas generation for electricity continues to play a role direct use of gas can be shown to have a lower carbon intensity than electricity.

    c. GDBs have a greater reliance on low volume, high revenue mass market segment. These consumers continue to demonstrate confidence in gas as evidenced by gas connection growth. Likewise, GPBs continue to forecast connection growth for this sector.

    d. GPBs appreciate that consumers are looking for a gas pipeline service and are mostly indifferent to the nature of that gas (renewable or not). That is why GPBs are investing in creating options for gas pipeline repurposing.

    e. Likewise, GTB has a significant and disproportionate contribution from supplying GDBs, closely linking their futures.

    f. There is inevitably considerable uncertainty as to how the future for gas will play out to 2050, but until the direction is clear, the successful strategy is to create options and keep them open as long as possible, and to continue to adapt to changing information as it crystallises.

114. The Commission likewise has options that don't need to be closed early. Despite IM reviews being set at 7-year intervals it has demonstrated a willingness to act outside of that cycle to bring it into 4-yearly DPP reviews on a special case basis. It can also as explained earlier, use supplier AMPs to monitor how suppliers are assessing and responding to future uncertainty. Suppliers can also use the CCP process to respond to any unexpected shocks to adjust their revenues.

115. The gas IM amendments made in 2022 have not obviously produced the outcomes that the Commission said it was pursuing.

116. We see a considerable mismatch with the way that the Commission treats the likelihood of economic stranding, with how the sector itself is responding to that risk. This is not explained by an assumption that there is an information asymmetry where the Commission has superior

insight compared to the rest of the sector. Our position is the opposite. People with skin in the game (those who invest real money betting on the future of gas) are likely to show best the scale of the risk and how to manage it.

117. The different risk perception manifests in how to act in the face of uncertainty. The Commission is seeking early intervention through adjusting its methodology, whereas the sector itself is demonstrating a more gradual adaptive approach within the existing methodology that has provided certainty to date (s52R). The sector approach has been vindicated because it works, while the Commission's intervention has increased uncertainty (undermining S52R) and increased costs to consumers (undermining S52A).

118. For these reasons we believe that the Commission should wind back the premature interventions it made in the gas IM settings, and follow rather than try and lead the conversation on gas demand decline risk.

OPTIONS

119. We support none of the Paper's proposed options for IM adjustments to deal with anticipated declining demand:

    a. **Option A**. Amend current approach to give suppliers discretion to set economic asset lives for new assets consistent with GAAP (retain current approach for existing assets).

    b. **Option B**. Allow suppliers to propose updated economic asset lives (consistent with GAAP) for all existing assets at a DPP reset.

    c. **Option C**. Applying a front-loaded depreciation method to individual assets.

    d. **Option D**. add mechanisms for discretionary compensation to support original FCM expectations but reduce the proportion of stranding risk assigned to consumers.

    e. **Option E**. Remove stranded assets from the RAB (in combination with Option D).

74. Option E *without including option D* has possibilities. It needs to be clear that the cost of that reduction in the RAB falls to the suppliers, without compensation from consumers.

75. The topic of what GPBs should do when facing uncertain demand risk is currently being answered through their AMPs. The Commission should carefully consider them.

76. We also urge an adjustment to Part 4 of the Commerce Act to recognise that gas pipeline services should recognise the transport of lower carbon gases that fall outside the current definition of "gas". This could help recognise the emerging future.

Yours sincerely

[redacted]

Richard Hale/Len Houwers
Hale & Twomey Ltd/Arete Consulting Ltd
Secretariat for the Major Gas Users Group Incorporated