Introduction and Summary

I appreciate this opportunity to submit on the unprecedented issues raised by the near certainty that the natural gas pipeline distribution service will be "*eliminated*", to use the Climate Change Commission's wording, for residential, commercial and public building consumers by 2050.[1] [2]

This submission explains why the Gas Pipeline Distribution IMs **without** the proposed "Economic Network Stranding – adjusting depreciation" IM Amendment would be "*materially better in meeting the purpose of Part 4*"[3] than the IMs with this amendment. The IMs that result from the complete IM review that is currently under way will likely be materially better still at meeting the the purpose of Part 4. Thus the essence of this submission that adoption of the time-pressured piecemeal change currently proposed will detract from achievement of the Part 4 objective "*to promote the long-term benefit of consumers"* by promoting "*outcomes that are consistent with outcomes produced in competitive markets*".

Based on the analysis in this submission, if any change to the depreciation provisions of the IM is to be made, the materially better change than the one proposed would be to accelerate depreciation on assets which GPBs are yet to decide to invest in rather than accelerating depreciation on their existing assets. The proposed combination of accelerating overall depreciation while retaining a 45 year depreciation rate for new assets appears to be particularly adverse to consumers' interests. Consumers would incur considerably more cost than would be needed to provide an incentive for investment in new assets than if the acceleration was confined to such new assets (as are warranted) rather than applying across the existing regulated asset base.

The analysis in this submission will appear unorthodox to most interested parties, particularly as regards the assertion that the standard justification for real ex-ante Financial Capital Maintenance (hereafter "FCM") is no longer valid for the natural gas pipeline distribution service. It is unorthodox - because the situation is unprecedented. Specifically, Parliament has passed legislation, the Climate Change Response (Zero Carbon) Amendment Act 2019, which the Climate Response Commission has advised requires "*elimination*" of a service regulated under Part 4.[4] Because this situation is unprecedented its implications have not been previous explored in the way attempted in this submission. It may be therefore that the Commission identifies weaknesses in this analysis which refute this submission's conclusions. Arguably, a one day workshop would be useful – not because my analysis is important enough to warrant that but because the issue itself is unprecedented and therefore warrants the full consideration a workshop would provide.

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[1] The Climate Change Commission advises that achievement of the Climate Change Response (Zero Carbon) Amendment Act 2019 objective requires the Government determine:
"*how to eliminate fossil gas use in residential, commercial and public buildings. Actions should include:*
a. Setting a date to end the expansion of pipeline connections in order to safeguard consumers from the costs of locking in new fossil gas infrastructure.
b. Evaluating the role of low-emission gases as an alternative use of pipeline infrastructure.
c. Determining how to transition existing fossil gas users towards low-emissions alternatives."
https://ccc-production-media.s3.ap-southeast-2.amazonaws.com/public/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa/Recommendations-from-Inaia-tonu-nei-Advice-Report.pdf Recommendation 19(8) p12
[2] This is a personal submission. I disclose that my family utilise piped gas for part of our energy requirements.
[3] As the IM Reasons Paper notes, the High Court, in Wellington International Airport Ltd & Ors v Commerce Commission considered that the purpose of IMs, set out in s 52R [ie provision of certainty], is "conceptually subordinate" to the purpose of Part 4 as set out in s 52A when applying the "materially better" test. See Wellington International Airport Ltd v Commerce Commission [2013] NZHC 3289, para [165].
[4] See footnote 1 above.

Paradoxically, the critical weakness in the GPB IM Amendments Reason's paper justification for acceleration of depreciation for existing assets is the underlying assumption that there is a significant probability that natural gas distribution pipeline users **will** derive long-term benefits after 2050. For natural gas consumers to derive a net benefit from GPBs investing in long life assets between now and 2050, (apart from very limited replacement of critical components) a substantial portion of the benefits will need to be derived after 2050. If there is little or no probability that natural gas consumers will derive benefits beyond 2050, the case for incentivising investment in natural gas pipeline assets to provide long-term benefits to natural gas consumers collapses (except for replacement of critical components).

If the government agrees with the Climate Change Commission's recommendation, as seems highly probable, it will require, or use other means to achieve, cessation of residential, commercial and public buildings natural gas consumption by around 2050. In that case the very large cost to consumers of the proposed acceleration of depreciation on existing assets will clearly provide no benefits beyond 2050 to consumers in their role as users of the natural gas pipeline distribution service.

Governments around the world are announcing that sales of fossil fuelled cars will be prohibited by dates such as 2035. Therefore, even if the government refrains from requiring requiring an absolute cessation of piped natural gas for residential, commercial and public building consumption, it seems near certain that it will set a date beyond which sales of gas appliances will cease. That action would have the effect of making piped natural gas consumption infeasible by around 2050 at the latest.

Thus the conclusion of the analysis in this submission is that the most realistic assumption to serve as a basis for the consideration of any change in the natural gas pipeline IMs is that the service will terminate by 2050 at the latest. As highlighted above this is an unprecedented situation in the decade long application of Part 4 regulation. It has unprecedented implications. As discussed in detail in the body of this submission, the fundamental justification for the Commission's stance regarding the role of FCM ceases to exist in regard to natural gas pipeline distribution services. FCM cannot be justified as providing long-term benefits to consumers in their role as consumers of a service which will cease to exist within a relative short time period.

Analysis

In both the draft GPB IM Amendments and GPB DPP3 Reasons Papers (the Reasons Papers), the Commission adopts a new assumption that there is a material likelihood natural gas pipeline services will be terminated before the end of the previous assumed average lifetime of the relevant assets for regulatory purposes of around 45 years. This termination will be the result of Government policy actions motivated by the green house gas emission reduction objectives in the Climate Change Response (Zero Carbon) Amendment Act 2019. As noted above, the Climate Change Commission has recommended elimination of residential, commercial and public natural gas consumption.

In my submission responding to the Commission's mid-2021 open letter, I suggested the Commission, in conjunction with the Ministry of Business, Innovation and Employment, needed to consider whether Part 4 was fit for purpose given Parliament's passing of the Climate Change Response Act 2002. The implications in regard to the gas pipeline services are quite different from the issues in regard to electricity lines services but both implications are the type of concern to which I was drawing attention. The IM amendment Reasons paper is now proposing what is described as "targeted changes" one of which is inappropriate because it is based on consideration of only a subset of the implications of the Climate Change Response (Zero Carbon) Amendment Act 2019 for the natural gas pipeline distribution service.

Based on the new assumption, the GPB IM Amendments Reasons Paper proposes a major change in one of the fundamental IMs outside of the overall review of IMs that is already been underway. The effect is a substantial change is proposed to be made in one component of the regulatory framework without analysis of the overall implications for the framework being completed. This is an example of a piecemeal response to the implications of the Climate Change Response (Zero Carbon) Amendment Act 2019 on the Part 4 regulatory framework that my submission to the open letter hoped could be avoided. In stating this, I recognise that the Commission is confronted by a timing mismatch, which is not under its control, between the DPP3 deadline, the IM review and the Government's response to the Climate Change Commission's recommendation. I do submit that the analysis in this submission makes the case for not implementing accelerated depreciation in DPP3 and instead giving full consideration to the issue in the IM review.

I submit the basic obligation of internal consistency in its Part 4 implementation requires the Commission to consider whether the effect of the new assumption regarding the future of the gas pipeline distribution service invalidates other sections of the existing IM. For reasons I have outlined above and explain fully below, the new assumption has wider and more radical implications for the regulatory framework which invalidate the Reasons Papers' justification for the proposed "targeted" change of accelerating depreciation.

The IM reasons Paper comments "*Under normal circumstances, we would be hesitant to make changes to fundamental IMs outside of the statutory IM review cycle. However, as explained below, the changes are necessary for us to continue to apply our regulatory framework consistently and will enable us to set a fit-for-purpose DPP3 that promotes the Part 4 purpose more effectively.*"

The paper argues: "*For the reasons we explain in detail in chapter 6 of our draft DPP3 reasons, there is now a material risk of an accelerated decline in the use of gas pipelines for conveying natural gas, exposing GPBs to economic network stranding. We note that while GDBs can influence natural gas demand in the short term through growing connections, or trying to maintain existing ones, our expectations are that natural gas demand will still fall in the medium to long-term. We consider this to be an exceptional situation facing the gas sector and there is a strong case for making targeted changes to the IMs now to allow us to start addressing these circumstances.*"

The term "targeted changes" is in this case down plays the reality that the situation regarding climate change policy has radical effects on the whole GPB IM and wider regulatory framework because the policy envisages elimination of the natural gas distribution pipeline service.[5]

The development of the Part 4 input methodologies (IMs), in which I participated, relied on the key underlying assumption that the regulated services would continue to be demanded and supplied into the long term future. That was the basis for the conclusion that providing regulated suppliers with the opportunity to achieve FCM into the indefinite future serves "*to promote the long-term benefit of consumers*" by promoting "*outcomes that are consistent with outcomes produced in competitive markets*".

[5] The Reasons Paper invokes the reconsideration of the WACC percentile as a precedent for implementation of an amendment to a fundamental IM without waiting for a full IM review. As a participant in the that timing decision, I note that the the circumstances were that the High Court's recommendation that the WACC percentile be reconsidered appeared to completely undermine the effectiveness of the WACC percentile in promoting investment – its sole rationale - until such time as the reconsideration was completed. In contrast the current situation is that a change in assumptions has eliminated the benefit of long term investment in gas pipeline distribution services ie the reduction in incentives is appropriate.

The likelihood that a regulated service will terminate, in around 28 years at the latest, radically changes the analysis of how Part 4 regulation promotes the long-term benefit of the relevant consumers. Specifically this new expectation calls into question whether continuation of the commitment to provide the opportunity to achieve FCM promotes either the long-term benefit of the relevant consumers or an outcome consistent with outcomes produced in competitive markets.

The original analysis of the long-term benefit of consumers focussed on the benefits to consumers identified in the Part 4 purpose, namely that regulated suppliers "*have incentives to innovate and to invest, including in replacement, upgraded and new assets*" and "*have incentives improve efficiency and provide services at a quality that reflects consumer demand*".

The Part 4 IMs were developed on the basis that incentives to innovate and invest which involve a cost to consumers, such as the setting of WAC at the 67% percentile of the estimates, are in the interest of consumers because they will deliver benefits over the longer term.

Once it is assumed that there is a very high likelihood that natural gas pipeline services will be provided for only a further 28 years at most, natural gas consumers by definition cannot derive any benefits from incentives to innovate or invest over the longer term. Given a 28 year time horizon, there is relatively little benefit to consumers from incentives to invest over any timeframe, except where the investment is essential to the continued supply of the service and patching and maintenance (ie Opex) is not a cost efficient alternative.

Recognition that consumers of gas pipelines services will derive only limited benefits from incentives to invest calls into question the underlying assumption which justifies the Commission's concern to provide suppliers with the opportunity for FCM.

The Commission's credibility with suppliers and their investors is the fundamental justification for the Commission's guiding principle for Part 4 regulation that decisions should be compatible with suppliers achieving FCM. The Commission's credibility is of long-term benefit to consumers because it provides important incentives for long term investments.

The Commission, however, has concluded in the draft determination that in regard to gas pipeline decisions it can concern itself only with the interests of the consumers of natural gas. Having decided there is a material likelihood that the time horizon for natural gas pipeline services is only 28 years when considering changes to the IMs regarding depreciation, the logical implication is that the fundamental justification for basing decisions on FCM no longer applies in regard to such services. Consumers of natural gas pipeline services will receive little or no benefit in their narrow role as such consumers from the Commission retaining its credibility.

I fully recognise the vital role that the Commission's credibility plays in ensuring New Zealand's infrastructure industries have access to capital at attractive cost. Maintaining that credibility is valuable public good. The unfortunate situation is, however, that the draft Determination would result in gas pipeline consumers paying a high price to preserve that credibility while obtaining little or no benefit in their role as natural gas consumers.

The justification that gas consumers will benefit from the retention of the Commission's credibility in their other capacities, for example as electricity lines service consumers, appears be a possible economic rationale. That justification, however, does not fit comfortably with the Commission's legal view that it must confine its focus exclusively to natural gas pipeline services.

Overseas governments and regulators are currently changing a variety of regulatory settings to reduce the immediate impact of gas prices on consumers and to reduce dependence on piped gas in Europe. Arguably, therefore, investors will not be shocked if the Commerce Commission reached the conclusion it could not underwrite FCM in regard to gas pipeline services because of climate change implications. The context is that investors and lenders are facing immediate complete write-off of their multi-billion dollar investment in Nord Stream 2 with the prospect that a variety of other pipelines will rapidly become redundant. This will occur as Europe firstly implements its plans to reduce dependence on Russian gas and then proceeds to work towards eliminating gas consumption for climate change reasons. In this situation it is seems unlikely that European regulators will increase pipeline price caps to allow accelerated recovery of depreciation.

In terms of the Part 4 legislative provisions, the additional consideration the Commission must address is whether allowing increases in gas pipeline service prices to accelerate recovery of depreciation would meet the test of "*promoting an outcome consistent with outcomes produced in competitive markets*"?

One way of examining what would be consistent with outcomes consistent with outcomes produced in competitive markets is to consider how suppliers of bottled gas would seem likely to be responding to the prospect that they will be required to terminate that service by 2050.

At present supply of gas by way of bottled delivery appears to be significantly more expensive than supply by way of distribution pipelines, but potentially the very large pipeline service price increases allowed in the draft Determination could come close to closing the price gap. Canstar, a cost comparison website, offers the following comparison:

"*The cost of using gas continuous flow hot water heating depends greatly on whether you can access gas. If you have piped natural gas or LPG – which are available only in certain areas in New Zealand – it costs approximately $750-$950 a year to run for a three-person household. Running it with LPG 45kg bottles, available in most parts of the country, will cost approximately $850-$1250. The running costs come down if you already have a gas supply for another use, such as for heating.*"
(https://www.canstarblue.co.nz/energy/electricity-providers/hot-water-heating-electric-gas/)

The relevant question is whether competing suppliers of bottled gas would be able to increase their prices in response to a sudden government announcement that they will have to terminate their service by 2050. To be more specific, let us assume (for the sake of the analysis) that gas bottles are owned by the suppliers and last more than 28 years, say 45 years. Would then suppliers of bottled gas, competing with one another, be able to increase their prices to accelerate recovery of depreciation on their bottles? Arguably, they would not – the expected response to the announcement would be that the suppliers would write down the value of their stocks of bottles.

Suppliers could be expected to spend more on maintenance of their stocks of bottles to avoid needing to retire them. To the extent that suppliers needed to retire bottles due to their deterioration the effect might be to might raise prices marginally until a new equilibrium was established in which some consumers switched away from gas consumption thus limiting the need for purchase of new bottles. Any accelerated recovery of depreciation for the suppliers in aggregate would be limited to that relating to newly purchased bottles.

Suppliers might, however, decide not to take on new customers unless the new customer purchased the bottles. That is the position as regards gas pipeline services based on the comments regarding capital contributions in the draft Determination.

I am not in a position to elaborate this example fully, and I acknowledge the detailed operation of actual bottled gas industry may differ from my assumptions, but I submit the Commission should address the issues it raises regarding outcomes consistent with outcomes in competitive markets.

Conclusion

The earlier summary of this submission states the implications of the above analysis. I consider it appropriate to note that in my view the modelling reported in the draft GPB DPP3 Reasons Paper is impressively thorough. The issues I raise are framework issues.

As indicated in the summary I recognise that the analysis in this submission results in unorthodox conclusions. That reflects the unprecedented situation. It may be therefore that the Commission identifies weaknesses in this analysis which refute this submission's conclusions. Arguably, a one day workshop would be useful – not because my analysis is important enough to warrant that but because the issue itself is unprecedented and therefore warrants the full consideration a workshop would provide.

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