

## Frontier Economics, 9 August 2023

## **Executive summary**

This report has been prepared by Frontier Economics. We regularly provide advice to regulators and regulated entities throughout Australia and New Zealand. Our advice extends to the whole spectrum of regulatory issues, including the acceleration of depreciation in relation to gas network stranding risk. We have previously prepared reports on the economic life of gas networks and accelerated depreciation for consideration by the Commerce Commission,<sup>1</sup> the AER,<sup>2</sup> the ERA of WA,<sup>3</sup> and IPART.<sup>4</sup>

## Similarities between the AER and Commission approaches

The Major Gas Users Group (MGUG) has recently provided a submission to the Commission's Input Methodologies (IM) review process.<sup>5</sup> One of the key issues addressed in that submission is the Commission's approach to the acceleration of regulatory depreciation allowances in relation to the stranding risk faced by gas networks. MGUG submits that the Commission should consider an approach that is more in line with that adopted by the Australian Energy Regulator (AER).

In this note, we review the AER approach, as applied in its recent Multinet Gas decision. We demonstrate that there are many similarities between the AER and Commission approaches to accelerating depreciation to address stranding risk for gas networks:

- Both regulators consider stranding risk within the ex ante financial capital maintenance (FCM)
  / NPV=0 framework. The objective of both regulators is to ensure that (in expectation) the asset owner is just made whole over the life of the asset.
- Because neither regulator has made an allowance for stranding risk in its allowed returns, ex ante FCM requires the RAB to be recovered over the expected economic life of the assets.
- Both regulators have regard to government policy, potential alternative uses, and other relevant information when deciding to accelerate depreciation allowances relative to the physical / technical lives of the assets.

<sup>&</sup>lt;sup>1</sup> https://comcom.govt.nz/\_\_data/assets/pdf\_file/0022/280750/Frontier-on-behalf-of-First-Gas2C-Powerco-and-Vector-Cross-submission-on-Gas-DPP3-draft-decision-Response-to-submissions-concerning-asset-stranding-28-March-2022.pdf.

<sup>&</sup>lt;sup>2</sup> https://gamaa.asn.au/wp-content/uploads/2022/07/Frontier-Economics-Report-GAMAA.pdf.

<sup>&</sup>lt;sup>3</sup> https://www.erawa.com.au/cproot/21852/2/DBNGP---DBP---AA5---21-02-22-AH-DBNGP-economic-life---Final-Report---STC.PDF.

<sup>&</sup>lt;sup>4</sup> https://www.ipart.nsw.gov.au/sites/default/files/cm9\_documents/11-5-Economic-asset-lives-and-regulatory-precedents-Frontier-Economics.PDF.

<sup>&</sup>lt;sup>5</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, paragraph 74.



- Both regulators stress the importance of beginning this process as soon as possible, even though there is a high degree of uncertainty about future developments. Beginning early helps to smooth prices and avoid shocks in future years.
- Both regulators commit to making future adjustments to depreciation allowances to reflect new information about likely economic lives, prospects of repurposing, and so on.

In our view, the key point here is that both regulators adopt the principle of ex ante FCM. If ex ante FCM is to be maintained, and if expected economic lives are shorter, it is axiomatic that regulatory depreciation allowances must be increased.

## Ex ante FCM should be maintained

The Commission has noted that MGUG has previously submitted that the principle of ex ante FCM should be abandoned<sup>6</sup> or, at most, applied to new investment and not to assets once they are sunk.<sup>7</sup> In its recent submission, MGUG re-states its previous submission on this point.<sup>8</sup> However, the Commission has already dealt with this point of principle and concluded that ex ante FCM, applied to all assets, is fundamental to promoting the Part 4 purpose. We agree with that view.

## The Commission has adopted a considered approach, consistent with ex ante FCM

Given that ex ante FCM is to be maintained, depreciation allowances must be based on the expected economic lives of gas network assets. The Commission has observed that government policy is the primary determinant of the economic lives of such assets. In this regard, the New Zealand government has set into law a target for net zero greenhouse gas emissions by 2050 (other than for biogenic methane) and has developed an Emissions Reduction Plan in furtherance of that legislated target.<sup>9</sup> The Commission has had regard to the legislated target and the published Plan, but notes that there is uncertainty about:

- The timing and manner in which natural gas distribution will be phased out. The Emissions Reduction Plan Action 11.3.1 relates to the managed phase-out of natural gas<sup>10</sup> and Recommendation 20.8 from the 2021 Climate Change Commission relates to the elimination of natural gas use on residential, commercial and public buildings, however precise timetables and plans were not developed in either document. ; and
- Whether existing gas networks can be repurposed for other uses beyond 2050.

This has led the Commission to determine an expected economic life by placing weight on two potential scenarios:

• One third weight on a scenario in which gas networks are not used after 2050; and

<sup>&</sup>lt;sup>6</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022*, paragraph C.56.

<sup>&</sup>lt;sup>7</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022, paragraph C.58.* 

<sup>&</sup>lt;sup>8</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, paragraph 27.

<sup>&</sup>lt;sup>9</sup> https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/low-emissions-economy/emissionsreduction-plan/.

<sup>&</sup>lt;sup>10</sup> https://environment.govt.nz/assets/publications/Aotearoa-New-Zealands-first-emissions-reduction-plan.pdf.



- Two thirds weight on a scenario that can be equivalently interpreted as one in which:
  - o Gas networks have some residual (re-purposing) value as at 2050; or where
  - Gas networks have an economic life to 2060, but not beyond.

The Commission has also noted that it will update its assessment of the economic life of these assets as new information comes to hand and adjust the depreciation profile for gas networks accordingly.

## New evidence and recommendations

The MGUG submission contains no new evidence to support a change to the Commission's prevailing assessment of the economic life of gas networks. The MGUG submission contains a lengthy appendix which largely restates and adds further explanation and commentary to past submissions made by MGUG. The appendix also updates the data that underpins some of the tables and figures in those earlier submissions to reflect new data that has become available since those submissions were made. However, the MGUG submission does not identify the implications that this updated evidence might have for the economic life of gas network assets, nor suggest what amendments the Commission should make to the scenarios or the relative probabilities that underpin its assessment of the economic life of gas network assets.

Rather, the economic life of gas network assets will be determined primarily by government policy. Major announcements of government policy in relation to gas networks are due to be made next year.

Consequently, we recommend that the Commission's current approach to regulatory depreciation should be maintained until the next round of government policy announcements are made.

## The AER approach to accelerated depreciation

The AER has set out the broad framework for its approach to accelerated depreciation in its November 2021 Information Paper.<sup>11</sup> The key elements of the AER's framework are:

- The AER recognises that there is uncertainty about the future demand for gas networks, which can be characterised as stranding risk;
- The AER will address this issue by accelerating depreciation allowances in an NPV-neutral way, where there is evidence to suggest that a gas network may have a shorter economic life;
- The NPV=0 principle underpins any such change in depreciation allowances. This is equivalent to the ex ante FCM principle that underpins the Commission's regulatory framework;
- The AER would seek to begin any such adjustment to depreciation profiles as early as possible in order to minimise/smooth the impact on prices; and
- The AER may vary the depreciation profile from time to time as new evidence about the likely economic life of the network becomes available.

<sup>&</sup>lt;sup>11</sup> AER, November 2021, *Regulating gas pipelines under uncertainty*.



In this regard, the AER's Information Paper is clear about the need to begin as soon as possible:

Since regulatory depreciation is determined by the length of the expected economic life of assets, the longer the time we have to make adjustments, the smoother the depreciation profile/ price impact would be. The opportunity and flexibility for adjustment is greatest when **we act as soon as we can** to minimise the adverse impact of a decline in gas demand.<sup>12</sup>

Moreover:

To enable different generations of consumers to pay network charges broadly in proportion to the value of network services they receive, it may be **better to front-load depreciation** such that a higher portion of costs can be recovered earlier in time, when there are more customers in the market to share the costs.<sup>13</sup>

The Information Paper is also clear about the need for the asset owner to recover its costs in line with the NPV=0 (ex ante FCM) principle:

Instead of using standard asset lives (or remaining lives), we may specify shorter asset lives for assets that are subject to stranding risk to reflect the period in which they would likely be in economic use, consistent with the **principle of providing adequately for cost recovery**.<sup>14</sup>

The Information Paper goes on to state that the AER would consider evidence to identify:

- the factors that influence the estimates of expected economic lives, such as applicable government policies, evidence of their customers' sentiments in switching away from gas, developments in competing technology etc
- those assets that may be repurposed for transporting hydrogen and those that cannot be
- those assets whose economic lives may need to be adjusted to reflect the potential decline in long-term demand
- the value of stranded assets under the different forecasting scenarios the costs that may be avoided or incurred in the different forecasting scenarios
- the level of customer support for the business's proposed action to manage the risk and the quality of that customer engagement
- analysis of the price impact for the business's proposed action.<sup>15</sup>

The Information Paper also sets out the AER's expectation that network businesses would engage with customers and reflect feedback in any proposal to accelerate depreciation allowances.<sup>16</sup>

<sup>&</sup>lt;sup>12</sup> AER, November 2021, *Regulating gas pipelines under uncertainty*, p. 44, emphasis added.

<sup>&</sup>lt;sup>13</sup> AER, November 2021, *Regulating gas pipelines under uncertainty*, p. 46, emphasis added.

<sup>&</sup>lt;sup>14</sup> AER, November 2021, *Regulating gas pipelines under uncertainty*, p. 45, emphasis added.

<sup>&</sup>lt;sup>15</sup> AER, November 2021, *Regulating gas pipelines under uncertainty*, p. 45.

<sup>&</sup>lt;sup>16</sup> AER, November 2021, *Regulating gas pipelines under uncertainty*, p. 47.

## Application of the AER's approach: Multinet Gas

The AER has applied its approach to accelerating allowed depreciation in its June 2023 Multinet Gas decision.<sup>17</sup> In that decision, the AER identifies the nature of the problem as follows:

As fewer customers seek connection to the gas distribution network and usage by remaining customers falls, the ongoing costs of maintaining the network are shared by a smaller number of customers over time. As long as there is demand from consumers and businesses for gas distribution services, and regulated distribution networks are required by law to provide those services, a level of investment in the networks that provide those services is necessary to ensure safe, reliable and secure gas supply. Growth-driven expenditure is already falling with demand. However, declining throughput and slower growth in customer numbers are not yet having the same impact on the costs of maintaining the network for remaining customers. Capex, in particular, mostly relates to assets with long lives, the costs of which are recovered (depreciated) over several access arrangement periods. This poses a number of challenges, including that the cost burden of past investments may be disproportionately borne by future gas customers and that assets may be economically stranded.<sup>18</sup>

The AER also highlights the need to begin the acceleration of depreciation allowances as early as possible so as to avoid future price shocks:

It is important to start taking small steps now to manage the equitable recovery of those costs from what will be a declining, and sometimes vulnerable, customer base over time. It is clear that demand will continue to fall in the short, medium and long term. We are already seeing material reductions in demand-driven expenditure. The impact of declining use of the gas networks on investment to maintain safety, security and reliability will take longer, but we consider there is sufficient evidence now, backed up by a convincing business narrative, to support some accelerated depreciation of network assets.<sup>19</sup>

The AER then had regard to broad, high-level information to reach a conclusion that some degree of accelerated depreciation would be warranted in the current case:

In accepting some accelerated depreciation for MGN, we recognise that the publication of the Roadmap indicates that the Victorian Government is committed to the net zero emissions target by 2050. This will likely mean a limited role for gas beyond this date. The 2023 GSOO<sup>20</sup> shows a material decline in gas volumes over the next 20 years under the most likely scenario. There is also considerable uncertainty around likely medium to long term forecasts volumes of customer abolishments. Further, the future role for hydrogen and other renewable gases is also uncertain at this time.<sup>21</sup>

<sup>&</sup>lt;sup>17</sup> AER, June 2023, *Multinet Gas Networks Gas distribution access arrangement 1 July 2023 to 30 June 2028*.

<sup>&</sup>lt;sup>18</sup> AER, June 2023, Multinet Gas Networks Gas distribution access arrangement 1 July 2023 to 30 June 2028, p. 8.

<sup>&</sup>lt;sup>19</sup> AER, June 2023, Multinet Gas Networks Gas distribution access arrangement 1 July 2023 to 30 June 2028, p. 8.

<sup>&</sup>lt;sup>20</sup> Gas Statement of Opportunities prepared by the Australian Energy Market Operator.

<sup>&</sup>lt;sup>21</sup> AER, June 2023, Multinet Gas Networks Gas distribution access arrangement 1 July 2023 to 30 June 2028, p. 25.



That is, when determining whether or not some degree of accelerated depreciation was warranted, the AER did not require detailed modelling of specific network assets. It was persuaded by:

- The relevant government's commitment to net-zero by 2050;
- A forecast of decline in whole-of-system volumes over the next 20 years; and
- Uncertainty about:
  - The rate at which customers might leave the system; and
  - The extent to which the gas network may have a future role in relation to renewable gases.

Having determined that some degree of accelerated depreciation was warranted, the AER then turned to quantum. The AER determined that depreciation could be accelerated up to the point where real prices increased by 1.5% p.a. (before consideration of incentive payments). The AER considered this to be an appropriate balance between affordability and the need to start having regard to stranding risk as early as possible. In this regard, the AER noted:

Having carefully assessed the material before us, we consider our final decision approach achieves an appropriate balance between what consumers pay now to mitigate future price increases, and the risk of greater increases in the future if mitigation is delayed.<sup>22</sup>

And further that:

In submissions received, stakeholders were mostly supportive of the draft decision price path constraint approach and they acknowledged the impact of uncertainty of future demand in assessing accelerated depreciation.<sup>23</sup>

## The Commission's approach to accelerated depreciation

The Commission's approach to accelerating depreciation for gas networks is set out in its May 2022 DPP paper.<sup>24</sup> In that paper, the Commission set out the context for its decision:

The Government has committed to net zero emissions by 2050 (**2050 target**) which requires all greenhouse gases, other than biogenic methane, to reach zero on a net accounting emissions basis by 2050. The Government has recently published its emissions reduction plan (**ERP**) which sets New Zealand on a pathway to meeting the 2050 target. The Government's plan includes phasing out the use of fossil fuels, including natural gas, whilst ensuring energy is accessible, affordable, secure, and supports economic development, and there is an equitable transition.

<sup>&</sup>lt;sup>22</sup> AER, June 2023, Multinet Gas Networks Gas distribution access arrangement 1 July 2023 to 30 June 2028, p. 25.

<sup>&</sup>lt;sup>23</sup> AER, June 2023, Multinet Gas Networks Gas distribution access arrangement 1 July 2023 to 30 June 2028, p. 25.

<sup>&</sup>lt;sup>24</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022.* 

As natural gas demand declines so too will the number of users on gas pipeline networks. This has implications, in particular, the remaining economic life of the networks to convey natural gas is likely to be shorter than previously expected.<sup>25</sup>

Having regard to these developments, the Commission decided to shorten asset lives to better reflect the expected economic life of gas networks:

Prior to this DPP, our approach to asset lives assumed that GPBs will provide services for decades to come, and their assets will have economic lives approximating their physical lives. But with expectations for declining demand, the Government wanting to phase out the use of natural gas, and the potential for network closure, gas pipeline assets will now have a shorter expected economic life conveying natural gas than previously assumed.

Accordingly, we have shortened the regulatory asset lives of the network to better match the period during which the network is still expected to convey natural gas.<sup>26</sup>

The Commission's approach to shortening asset lives is underpinned by the principle of ex ante FCM, which is a key element of promoting the s 52A purpose.<sup>27</sup> The Commission defines FCM as:

- A reasonable expectation that the RAB can be recovered through return of capital (depreciation) in the long run; and
- an expectation of making a normal return on capital invested.<sup>28</sup>

In applying the ex ante FCM principle, the Commission notes that its allowed returns do not (and have not) provided any compensation for stranding risk.<sup>29</sup> Consequently, for ex ante FCM to be achieved, it is necessary for owners to recover the RAB value of the assets over their remaining lives.<sup>30</sup>

The Commission concluded that continuing to use physical asset lives would be inconsistent with ex ante FCM because it results in material unrecovered RAB values at the end of the likely economic lives of those assets.<sup>31</sup> Consequently, the Commission decided that it should set

<sup>&</sup>lt;sup>25</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022, paragraphs X7-X8.* 

<sup>&</sup>lt;sup>26</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022*, paragraphs X17-X18.

<sup>&</sup>lt;sup>27</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022*, paragraphs C19; C55-C59.

<sup>&</sup>lt;sup>28</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October* 2022, paragraph C9.

<sup>&</sup>lt;sup>29</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022*, paragraphs C20; C38.

<sup>&</sup>lt;sup>30</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022*, paragraph C40.

<sup>&</sup>lt;sup>31</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022*, paragraphs C46-C48.



depreciation allowances based on the expected economic lives of gas network assets, consistent with the principle of ex ante FCM in order to best support the Part 4 purpose.<sup>32</sup>

To estimate the likely economic lives of gas network assets, the Commission has undertaken modelling of potential future scenarios, applying probability weights as follows:

We updated our long-term modelling that informs our judgement for our final decision by giving weight to a wider range of assumptions and an additional future scenario. Our modelling now has regard to two primary scenarios:

- The 2050 reference scenario used for our draft decision, with updated building block inputs reflecting most recent data and decisions in this paper. This scenario maintains the assumption of a straight-line declining MAR envelope to 2050 adopted in our draft decision; and
- A 2060 wind-down scenario with a concave MAR envelope. This assumes continued use of some or all of the pipelines to supply natural gas for a decade after the 2050 net carbon zero legislative target. A moderately concave MAR is applied to reflect a greater assumption around the ability of some future consumers to absorb price increases than assumed under our straight-line profile of our 2050 reference scenario.

We consider that most weight should be accorded to the 2060 scenario, not only to acknowledge the possibility of gas use continuing past the 2050 legislative target for net carbon zero, but also to acknowledge that it could additionally be seen as a possible proxy for a wind-down scenario with residual value remaining at 2050.

We have accorded a one-third weighting to the 2050 wind-down scenario, and a two-thirds weighting to the 2060 wind-down scenario.<sup>33</sup>

That is, the Commission places:

- One third weight on a scenario in which gas networks are not used after 2050; and
- Two thirds weight on a scenario that can be equivalently interpreted as one in which:
  - Gas networks have some residual (re-purposing) value as at 2050; or where
  - Gas networks have an economic life to 2060, but not beyond.

The Commission has also noted that, in its application of this approach to asset lives:

- It will update its assessment of the economic life of these assets as new information comes to hand; and
- That it is important to begin this process immediately and not to delay taking action.

In relation to the assessment of new information, the Commission states that:

<sup>&</sup>lt;sup>32</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October* 2022, paragraph C63.

<sup>&</sup>lt;sup>33</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022, paragraphs 6.21-6.22.* 

We recognise there are likely to be future developments that we will need to take account of when we come to set the next DPP in four years' time, including:

- Announcements on energy policy relating to the natural gas sector including the Government's proposed gas transition plan due by the end of 2023 and the energy strategy due by the end of 2024.
- Technical and commercial developments, for example, there is considerable activity in developing options for alternative low-emission gases, such as hydrogen, including as potential replacements for natural gas.
  - Our DPP3 decision reflects an expenditure allowance to investigate blending low levels of, for example, hydrogen with natural gas. These innovations could extend the economic lives of the pipelines for delivering natural gas.
  - The conveyance of other gases as alternatives to natural gas is outside the scope of Part 4 of the Commerce Act 1986 (Part 4). However, if the pipelines can be used for an alternative gas, this would increase the residual value of the pipelines when they are no longer used for the conveyance of natural gas. Our DPP3 decision considers this as one possible scenario. <sup>34</sup>

In relation to the importance of acting immediately, the Commission concluded that:

- Acting now enables us to give better effect to the Part 4 purpose...It would appear inconsistent with the Part 4 purpose to set allowable revenues for DPP3 over the next 4 years on the basis of a depreciation building block reflecting standard physical asset lives which make no accommodation for the risk of asset redundancy or network closure.
- Acting now supports an expectation of FCM in response to a material and present risk under current DPP settings...It would not be credible to set a DPP using regulatory asset lives that equate to physical lives of the assets, when there are strong grounds to believe that the economic lives of those assets are shorter.
- Acting now to setting maximum allowed revenues that better reflect long term expectations of demand for GPBs promotes more efficient use of pipeline assets over time.
- Acting now is supported by our efforts to assess the financial implications of deferring action. Shortening average asset lives in DPP3 reduces the revenue that needs to be recovered from consumers in future regulatory periods.
- Acting now preserves options which may be valuable to consumers of natural gas. There is considerable uncertainty over possible future scenarios and shortening asset lives to more effectively maintain the incentive to invest provides a valuable option to

<sup>&</sup>lt;sup>34</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022*, paragraph X31.

prolong the use of the network (or parts of it) than alternatives (like assuming early closure, or only providing expectations of FCM for incremental investment).<sup>35</sup>

# Comparison of AER and Commission approaches to accelerated depreciation

There are many similarities between the AER and Commission approaches to accelerating depreciation to address stranding risk for gas networks:

- Both regulators consider stranding risk within the ex ante FCM / NPV=0 framework. The objective of both regulators is to ensure that (in expectation) the asset owner is just made whole over the life of the asset.
- Because neither regulator has made an allowance for stranding risk in its allowed returns, ex ante FCM requires the RAB to be recovered over the expected economic life of the assets.
- Both regulators have regard to government policy, potential alternative uses, and other relevant information when deciding to accelerate depreciation allowances relative to the physical / technical lives of the assets.
- Both regulators stress the importance of beginning this process as soon as possible, even though there is a high degree of uncertainty about future developments. Beginning early helps to smooth prices and avoid shocks in future years.
- Both regulators commit to making future adjustments to depreciation allowances to reflect new information about likely economic lives, prospects of repurposing, and so on.

## MGUG characterisation of the AER approach

The recent MGUG submission suggests that the AER and Commission approaches differ in terms of who bears the onus of providing evidence about the economic life of gas network assets:

The AER's approach strongly contrasts with the Commission's. In Australia, suppliers are tasked with convincing the regulator and consumers that altering the depreciation settings is in the long-term interest of consumers. In New Zealand, the Commission has taken on the responsibility for the evidence to justify and defend its case to both suppliers and consumers for accelerated depreciation on the entire RAB.<sup>36</sup>

In our view, the source of the regulator's information makes little difference. What is important is that both regulators have regard to essentially the same type of information relating to their respective jurisdictions to determine whether the economic life of gas network assets is likely to be less than the physical life. In practice:

<sup>&</sup>lt;sup>35</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October 2022*, paragraph C63.

<sup>&</sup>lt;sup>36</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, paragraph 74.



- The AER has had regard to the Victorian government's commitment to net-zero by 2050 and the AEMO modelling of the decline in whole-of-system volumes over the next 20 years; and
- The Commission has had regard to the net-zero legislated target and its own modelling of two future scenarios including an assessment of the relative likelihood of each.

In both cases, the regulator determined that the economic life of the assets was likely shorter than the physical life and consequently increased depreciation allowances.

The recent MGUG submission also characterises the AER approach as requiring that suppliers must convince consumers that the proposed depreciation settings are in the long-term interests of consumers.<sup>37</sup>

However, both regulators consider ex ante FCM (NPV=0) to be the foundation of the long-term interests of consumers. Under ex ante FCM, consumers pay (in expectation) the efficient cost of the service provided to them over the life of the asset – no more and no less. In this regard, the Commission has considered arguments to the contrary but concluded that:

Continuing support for ex ante Financial Capital Maintenance would best promote the Part 4 purpose at present. <sup>38</sup>

If ex ante FCM is to be maintained, and if expected economic lives become shorter, it is axiomatic that regulatory depreciation allowances must be increased.

Moreover, New Zealand operates under a DPP/CPP framework rather than a propose/respond model. So it would be natural for the regulator in that setting to set out a 'default' view for stakeholders.

## Is it time for a revision to the Commisssion's approach to regulatory depreciation?

In our view, the relevant context for the Commission's consideration of regulatory depreciation for gas networks is that:

- Regulatory depreciation allowances should be consistent with the ex ante FCM;
- This requires an assessment of the likely economic life of gas network assets; and
- The primary determinant of the life of such assets is government policy.

Consequently, in developing its current approach, the Commission has had regard to information about current and likely future government policy in relation to gas network assets.

In our view, it would be logical for the Commission's approach to regulatory depreciation to evolve with changes in government policy that may affect the economic life of gas network assets.

In this regard, the Climate Change Commission has recently observed that:

<sup>&</sup>lt;sup>37</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, paragraph 74.

<sup>&</sup>lt;sup>38</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October* 2022, p. 183.

There is a wave of energy policy development currently underway. The Government committed to developing an energy strategy in its first emissions reduction plan to provide long-term direction for an energy system transition. This is due to be completed in 2024 and it will bring together the Gas Transition Plan, the Hydrogen Roadmap, the NZ Battery Project, and the Decarbonising industry plan, all of which are currently under development.<sup>39</sup>

And also that:

The Government's Gas Transition Plan and National Energy Strategy, and the Commerce Commission's regulated investment framework, should provide clear strategic direction on the future of fossil gas and options for regulated cost recovery models for gas pipeline businesses.<sup>40</sup>

That is, there is currently work being done on the development of government policy that has direct implications on the economic life of gas network assets – scheduled to be completed next year. And some of this work is being performed in collaboration with the Commission itself.

In our view, it would be logical for the Commission to consider whether the outcomes of this work had any implications for its estimates of the likely economic life of gas network assets.

Moreover, it would be counterproductive, in terms of regulatory stability and predictability, for the Commission to change its approach to regulatory depreciation in the absence of evidence with clear implications for the Commission's estimates of the likely economic life of gas network assets.

## Analysis of MGUG submissions

## The principle of ex ante FCM

The Commission has noted that MGUG has previously submitted that the principle of ex ante FCM should be abandoned<sup>41</sup> or, at most, applied to new investment and not to assets once they are sunk.<sup>42</sup> In its recent submission, MGUG re-states its previous submission.<sup>43</sup> However, the Commission has already dealt with this point of principle and concluded that ex ante FCM, applied to all assets, is fundamental to promoting the Part 4 purpose. We agree with that view.

## New evidence of changes in the economic life of gas network assets?

We have noted above that:

• The primary determinant of the economic life of gas network assets is government policy; and

<sup>&</sup>lt;sup>39</sup> Climate Change Commission, April 2023, 2023 Draft advice to inform the strategic direction of the Government's second emissions reduction plan, p. 110.

<sup>&</sup>lt;sup>40</sup> Climate Change Commission, April 2023, 2023 Draft advice to inform the strategic direction of the Government's second emissions reduction plan, p. 104.

<sup>&</sup>lt;sup>41</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October* 2022, paragraph C.56.

<sup>&</sup>lt;sup>42</sup> New Zealand Commerce Commission, *May 2022, Default price-quality paths for gas pipeline businesses from 1 October* 2022, paragraph C.58.

<sup>&</sup>lt;sup>43</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, paragraph 27.



• Major government policy announcements are due to be made next year.

By contrast, the MGUG submission contains a 92-page appendix (12 pages of which appear to have been accidentally replicated)<sup>44</sup> that:

- Restates and adds further explanation and commentary to past submissions made by MGUG submissions that have already been considered by the Commission; and
- Updates the data that underpins some of the tables and figures in those earlier submissions to reflect new data that has become available since those submissions were made.

The MGUG submission does not identify the implications that this updated evidence might have for the economic life of gas network assets, nor suggest what amendments the Commission should make to the scenarios or the relative probabilities that underpin its assessment of the economic life of gas network assets.

## Case study: New gas connections

One of the pieces of updated data in the MGUG submission is that relating to customer connections.<sup>45</sup> MGUG interprets this as evidence of consumers having "continued confidence in gas"<sup>46</sup> even in light of the Climate Change Commission's 2021 advice to government recommending that new connections should be halted and that natural gas distribution should be discontinued by 2050.<sup>47</sup>

In this regard, the MGUG submission concludes that:

The Commission mentions connection bans as an example of a possible policy outcome accelerating decline in gas demand. We think the debate about banning new gas connections has moved on since being floated as an idea. One reason is that banning could lead to the perverse outcome of higher emission.<sup>48</sup>

This leads MGUG to speculate that government may reject advice about banning new connections on the basis that government has previously rejected advice in that regard.<sup>49</sup>

We consider that there are a number of points to make in response to these submissions:

• Growth in current connections should not be interpreted as evidence that future connections will continue to be allowed. Even if it were certain that new connections would be banned say two years from now, it would remain perfectly rational for new connections to continue (and even be accelerated) up until that time.

<sup>&</sup>lt;sup>44</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, paragraphs 179-230.

<sup>&</sup>lt;sup>45</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, Figure 1, p. 20.

<sup>&</sup>lt;sup>46</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, p. 19.

<sup>&</sup>lt;sup>47</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, p. 19.

<sup>&</sup>lt;sup>48</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, p. 50.

<sup>&</sup>lt;sup>49</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, p. 114.



• Recent evidence from the state of Victoria shows that connection numbers continued to increase in advance of the government announcing a ban on all new connections from the following year.<sup>50</sup> See Figure 1 below.

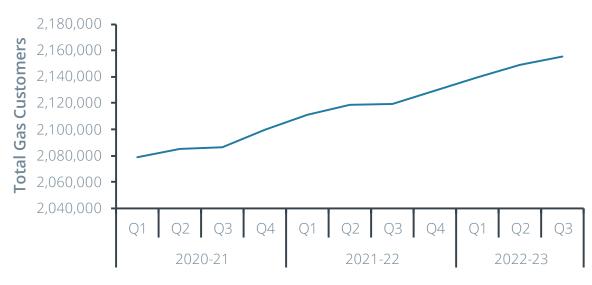


Figure 1: Customer number growth in Victoria

Source: Essential Services Commission.

 It is not at all the case that "debate about banning new gas connections has moved on since being floated as an idea."<sup>51</sup> Rather, the April 2023 Climate Change Commission advice to government includes the following recommendation:

Prohibit the new installation of fossil gas in buildings where there are affordable and technically viable low emissions alternatives in order to safeguard consumers from the costs of locking in new fossil gas infrastructure.<sup>52</sup>

• The prospect of a "perverse outcome of higher emissions" did not deter the Victorian government from announcing such a ban on new connections. In Victoria, natural gas is likely to be replaced by generation from brown coal with materially higher emissions intensity.<sup>53</sup>

In summary, our view is that evidence that growth in connections has continued over the last year is not usefully informative about the expected economic life of gas network assets.

Moreover, it is also relevant that the AER adopted accelerated depreciation in response to stranding risk having knowledge of the steady increase in customer numbers at Victorian gas networks.

<sup>&</sup>lt;sup>50</sup> https://www.abc.net.au/news/2023-07-28/victoria-bans-gas-new-homes-housing-developments-emissions/102659636.

<sup>&</sup>lt;sup>51</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, p. 50.

<sup>&</sup>lt;sup>52</sup> Climate Change Commission, April 2023, 2023 Draft advice to inform the strategic direction of the Government's second emissions reduction plan, Recommendation 12, p. 14.

<sup>&</sup>lt;sup>53</sup> <u>https://www.afr.com/companies/energy/vic-gas-ban-is-no-spectacular-win-for-the-climate-20230728-p5ds2u</u>.



## Are the MGUG proposals workable?

The MGUG submission proposes two main differences between the Commission's approach to regulatory depreciation and what it describes as the AER approach:

- The burden of evidence of stranding risk is placed on the network; and
- Consumer 'buy in' is required.<sup>54</sup>

We have noted above that the practical implementation of the AER approach in its Multinet Gas decision shares many key similarities with the Commission's approach.

However, we also note that, the changes that MGUG advocates for would be practically unworkable in two respects:

- If the Commission's work on the economic life of gas network assets were set aside and the burden of evidence placed on networks, it seems obvious that networks would simply resubmit the evidence that the Commission has already accepted, resulting in no change to the current approach;<sup>55</sup> and
- A model in which current consumers had an effective veto over accelerating depreciation would be unworkable and unlikely to be consistent with the long-term perspective of the Part 4 purpose. This is also inconsistent with the way the framework operates in Australia.

## Final observations and conclusions

Our final observations and conclusions are that:

- The AER and Commission have both recognised that:
  - Stranding risk and accelerated depreciation should be considered using the principle of ex ante FCM;
  - It is important to take action to address stranding risk as early as possible in order to avoid future price shocks; and
  - Analysis should be updated as material new information about stranding risk becomes available.
- We agree that the guiding principle of ex ante FCM should be maintained as this promotes the long run benefit of consumers.
- Ex ante FCM requires that regulated assets are depreciated over their expected economic lives. The Commission performed the relevant analysis in DPP3 for gas network businesses.
- The MGUG submission contains no new evidence to support a change to the Commission's prevailing assessment of the economic life of gas networks.

<sup>&</sup>lt;sup>54</sup> Major Gas Users Group, July 2023, *Submission to Commerce Commission*, p. 114.

<sup>&</sup>lt;sup>55</sup> Apart from having no practical effect, such an approach would be inconsistent with the DPP framework where the Commission sets out its 'default' views after a consultative process involving stakeholder submissions to Issues Papers and Draft Decisions.



- Rather, the economic life of gas network assets will be determined primarily by government policy. Major announcements of government policy in relation to gas networks are due to be made next year.
- Consequently, we recommend that the Commission's current approach to regulatory depreciation should be maintained until the next round of government policy announcements are made.

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