Default Price-Quality Paths for Gas Pipeline Businesses from 2022

Submission on the Commerce Commission's Draft Decision

1. This is Vector's submission on the Commerce Commission's (Commission) Draft Decision on the default price-quality path for gas pipeline businesses (GPB) from 2022 (DPP3).

2. We were pleased to see the Commission has recognised significant uncertainty for natural gas in New Zealand's transition to a net zero carbon economy as the key context for this DPP reset and has reiterated that the principle of ex ante financial capital maintenance (FCM) underpins the Part 4 regime. The risk of asset stranding has significantly increased for GPBs. The Commission's decision to accelerate depreciation for GPB assets is a critical and necessary first step to help mitigate this risk.

3. As the Draft Decision sets out, the Government is due to deliver its emissions reduction plan in May 2022 in response to the Climate Change Commission (CCC) recommendations. This is likely to have a significant impact on the future of natural gas in New Zealand and is the same month the Commission is required by legislation to determine DPP3. Beyond this, the potential repurposing of the gas network for green gases such as hydrogen or biogas remains very unclear.

4. Accordingly, the key challenge for DPP3 is taking sufficient action to mitigate uncertainty to ensure incentives for efficient investment are preserved in line with the Part 4 purpose. We appreciate the Commission clearly recognises the uncertain environment for GPBs. However, we consider the Draft Decision takes a highly conservative approach and does not include other sensible levers necessary to deal with the magnitude of risk GPBs are facing.

5. Along with accelerated depreciation as proposed by the Commission, we consider it is also necessary to:
   - Implement a revenue cap. In the current environment it is not possible to credibly forecast gas volumes given the delayed government response to the CCC recommendations, emerging climate change sentiment impacting consumer behaviour and Covid19 related disruptions and their impacts; and
   - Un-index the regulated asset base (RAB) from inflation. The current indexed approach only serves to inflate the scale of the potential stranding problem.

6. Neither of these suggestions are novel or without precedent. Transpower already has an unindexed RAB and a revenue cap is already applied to electricity distribution businesses (EDB) and, in a different form, the Gas Transmission Business (GTB).

7. We consider these further actions necessary because otherwise the current back ended cashflow and demand growth forecasting risk could work against the policy intent of bringing cashflows forward to mitigate stranding risk.

8. These steps are also required to ensure an equitable transition. Maintaining a back-loaded cashflow profile risks leaving those least able to leave the gas network bearing more of the cost. This issue can be mitigated by front-loading cash flow to ensure cost recovery is spread across the wider customer base.

9. A framework that leaves the majority of cost recovery to later periods is likely to be regressive. Consumers who are able will leave the network, leaving those who are unable to leave bearing the cost burden. In terms of residential consumers, this is likely to be those who cannot finance leaving the network (e.g. through changing appliances) and therefore those who can least afford it.

10. The Part 4 purpose is best maintained by ensuring all levers in the DPP work together to provide an expectation of ex-ante FCM, thereby ensuring suppliers continue to have incentives to invest in the face of significant asset stranding risk, along with supporting consumer welfare by ensuring future prices are lower than they would otherwise have been and that the cost burden of asset stranding does not fall on future consumers that were unable to disconnect from the network.

11. Vector's recommendations in the submission are provided in the table below.

Topic	Vector view
Managing volume forecast uncertainty	The Commission should change the form of control to a revenue cap. Future demand for the gas network is heavily dependent on government policy decisions that are currently unknown. We do not consider it is possible to produce a reliable constant price revenue growth (CPRG) forecast given the current uncertainty, amplified by Covid19 impacts and volume fluctuations that have been experienced over the last 24 months. <u>The growth rate the Commission has assumed for Vector should be revised</u> The Commission's CPRG forecast for Vector does not align with the volumes delivered on our network, which have been declining for the past four years.

We acknowledge the CPRG forecast is consistent with Vector's 2021 Asset Management Plan (AMP). However, this AMP was prepared with the express assumption that a revised AMP would be submitted once the government's response to the CCC recommendations was known (although, due to the delayed government response this did not occur). The 2021 AMP was not intended to provide a forecast for DPP3, as its preparation was inhibited by significant uncertainty, not least of which included Covid19 Auckland lockdown volume variability. Vector wrote and advised the Commission of this when we submitted the AMP in 2021.

Along with the clear limitation that the Government's response to the CCC's final report remains unknown, AMP 2021 was prepared with numerous other events causing uncertainty. In particular:

- The ongoing disruption and impacts caused by the Covid pandemic;
- The impact on demand of Vector's move to 100% capital contributions (effectively a price change for new connections);
- Ongoing high gas prices caused by the scarcity of commercial quantities of gas; and
- The move by retailers to wash-up meter readings with up to a 12-month delay.

As we advised the Commission in December 2021, Vector ultimately did not submit a revised 2021 AMP as the Government's response to the CCC recommendations was delayed and the uncertainty caused by, for example, the Covid pandemic continued.

We would welcome the opportunity to discuss the appropriate forecast with the Commission and we are happy to make our modelling experts available.

If the Commission persists with a WAPC, we consider Vector's CPRG forecast must be updated. We do not consider the current CPRG forecast is fit for purpose as it relies on Vector's 2021 AMP forecast which was not intended to be used for DPP3 volume forecasts due to the significant uncertainty at the time it was prepared. A forecast based on current and the most up-to-date information is needed.

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	A revenue cap is needed The best option to deal with the current uncertainty and resulting material deficiencies with the CPRG forecast is to change the form of control to a revenue cap. Implementing a revenue cap would better promote the Part 4 purpose by avoiding any disincentives to investment arising from quantity forecasting risk. The weighted average price cap is designed to incentivise regulated businesses to pursue new connections. This may not be an appropriate regulatory incentive in the current context of New Zealand's transition to net zero. A revenue cap is more appropriate taking account of the Government's statutory net zero target. We note the Commission's own expert report from Concept Consulting recognised significant uncertainty in the current environment. Concept Consulting considered two forecasts, one consistent with the CCC demonstration pathway and one consistent with GPB AMPs. They found the GPB forecasts were significantly higher by 2028 than the CCC forecast. Concept Consulting recognised GPBs face an "unmanageable risk" if the Commission used GPB forecasts but the Government implemented the proposed ban on new gas connections. They also highlighted that a WAPC is incompatible with New Zealand's decarbonisation objectives. If the Commission retains a WAPC significant further action will be needed to mitigate disincentives to efficient investment caused by forecast risk. We consider the following actions would be necessary: • The introduction of a CPRG re-opener; and • The Commission should update Vector's CPRG forecast as the current forecast is not fit for purpose. We are happy to make our modelling experts available to work through forecasting issues. In our view, the introduction of a CPRG re-opener is the absolute minimum response that must be taken in the current circumstances.

Accelerated depreciation	We strongly support the Commission's decision to accelerate depreciation by applying an adjustment factor. Taking action to address stranding risk is critical to promote the long-term benefit of consumers by supporting an expectation of ex-ante FCM and therefore maintain incentives for GPBs to invest efficiently in the network. In the current context of heightened asset stranding risk, directors may be unable to discharge their fiduciary duty to act in their company's best interests if they considered approving new expenditure. Addressing stranding risk now is also critical to alleviate the impact on future consumers. Otherwise - as the asset stranding risk materialises - the burden of cost recovery would fall on those who were unable to disconnect from the network. Acting now better supports consumer equity and is appropriate to manage consumer vulnerability for those future consumers. To best promote the Part 4 purpose stranding risk should be addressed in DPP3. This will - • Support an expectation of FCM which is crucial to ensure suppliers retain incentives to invest. • Support the welfare of future consumers by ensuring future prices are lower than they would otherwise have been and ensuring the cost burden of asset stranding does not fall on future consumers that were unable to disconnect from the network. • Support the future optionality of GPB assets to provide a smoother transition to clean gases if this becomes technically feasible. • Is NPV neutral so cannot raise any concerns around the ability of suppliers to extract excessive profits We agree with the Commission that the likely long-term benefits to consumers will outweigh any increased compliance costs or complexity incurred as a result of this change. We note the Commission's modelling of the winddown scenario is consistent with independent modelling produced by the Gas Infrastructure Future Working Group so stakeholders can be confident the modelling assumptions are fit for purpose.

	We also engaged Frontier Economics to review the Commission's asset stranding model. They suggested two improvements to support the robustness of the model. These are included in **Appendix One**. We consider accelerated depreciation is a crucial first step, however, maintaining an expectation of ex ante FCM also requires the additional step of un-indexing the RAB from inflation.
RAB indexation	We recommend the Commission un-index the RAB from inflation. We do not consider it is appropriate to maintain an indexed RAB in the current environment where GPBs face a material risk of asset stranding unless significant changes are made to the regulatory settings. An indexed RAB inflates the scale of the stranding problem and undermines the intent of accelerating depreciation to bring cash flows forward to mitigate stranding risk. We acknowledge accelerated depreciation could - in theory - provide full recovery of the indexed RAB. However, there is significant uncertainty at the backend of the 2050 horizon given the difficulty in predicting gas volumes and customer willingness to pay. That is, there is a risk the value of the RAB in later years would exceed customer willingness/measures to pay - even with accelerated depreciation. There is also a risk GPBs face negative cashflow prior to the stranding date of 2050 and therefore cease to operate ahead of this. The Commission should take the further measure of un-indexing the RAB to mitigate this risk. Otherwise, the regulatory design choice by the Commission to index the RAB to inflation may compromise GPBs ability to recover capital in the later years. To support an expectation of FCM and maintain customer equity by ensuring cost recovery is spread over a wide customer base, the Commission also must take the additional step of un-indexing the RAB from inflation.

SPA and the rate of change	We recognise the Commission's approach reflects a balance between the need to speed up capital recovery to maintain an expectation of ex ante FCM due to increased stranding risk and the need to avoid price shocks for consumers. We note moving to a revenue cap could also support the goal of avoiding price shocks as GPBs' could opt to defer price increases in the short-term and wash-up unrecovered revenue in later years.
Expenditure	The Commission's decision to use the most up to date information (i.e. disclosure year 21) to set allowances will mitigate to some extent Vector's relatively low capital expenditure (capex) acceptance rate relative to the draft decision. However, we are concerned that capex for *asset replacement and renewal*, and for *reliability, safety and environment* would still see a significant reduction relative to forecast. We recognise the Commission's concern about allowing more capex than the historic average where growth is expected to decline and there is a heightened risk of asset stranding. However, the network is ageing and still requires expenditure to be maintained safely. Accordingly, we recommend the Commission maintain the 10% margin to the historical average capex projections used to cap allowances. This would reduce the impact of the reduction in Vector's allowance for *asset replacement and renewal*, and for *reliability, safety and environment.* The idealised maximum allowable revenue (MAR) profile (to deliver capital recovery) does not appear to include decommissioning costs. We consider this should be factored in since incurring decommissioning expenditure will be unavoidable if the winddown scenario occurs. Decommissioning expenditure is likely to be significant. We also note the idealised MAR profile assumes no further relocations capex is added to the RAB after DPP3 on the assumption relocations are fully funded through capital contributions. For Vector, this is not the case. We consider the Commission should allow for relocations capex beyond DPP3. .

Length of the regulatory period	We support the decision to implement a four-year regulatory period to manage current uncertainty. This will best promote the Part 4 purpose by ensuring the most recent information is taken into account in the next reset at the earliest possible opportunity.
Quality standards	We support the Commission's decision to retain current quality standards and not to introduce any new quality standards for this DPP. We agree with the Commission current quality standards are fit for purpose.
Re-openers	We support the introduction of the capacity and risk re-openers. Re-openers should apply to increases in cost as well as events. We recommend these are neutral as to type of expenditure (i.e. operating or capital expenditure) rather than limited to capital expenditure. We also recommend a low threshold for applying for re-openers, particularly if the Commission retains its decision to remove the 10% margin to the historical average capex projections used to cap allowances If the Commission does not implement a revenue cap as the form of control, we consider introducing a CPRG re-opener will be necessary to mitigate forecasting risk.

Volume uncertainty

12. We recommend the Commission change the form of control to a revenue cap. The uncertainty around the future of the gas network is such that a CPRG relating to volume some four and a half years out cannot be credibly relied upon. A key prerequisite for a WAPC must be a reasonable ability to forecast volumes – a prerequisite that cannot reasonably be said to exist in the current environment.

13. Vector's submission on the Process and Issues Paper noted that a revenue cap is the appropriate form of control in the current environment but that this was subordinate to the need to produce a recovery pathway consistent with net zero. We maintain that providing an appropriate recovery pathway remains the most critical aspect of the DPP (and

accordingly support the Commission's accelerated depreciation decision). Having given further consideration to the uncertain environment as well as the draft CRPG forecasts, we also consider uncertainty around demand necessitates the move to a revenue cap.

14. Government policy decisions (as well as changing consumer demand) will have a major impact on the future demand profile of the gas network. The outcome of these decisions will not be known until, at least, the final DPP3 decision is largely set. The delay of the Government's emissions reduction budget until May has heightened this uncertainty.

15. This uncertainty has been exacerbated by Covid-19 impacts including business interruptions as well as changing consumer working from home behaviours. This is particularly the case in Auckland which has been subject to extensive Covid disruption, including spending over 100 days in lockdown during 2021. This impact has been particularly evident in business sector areas such as hospitality which typically use gas and have been severely restricted in their ability to operate during Covid lockdowns.

16. In the current unprecedented circumstances, we cannot see any credible way the Commission could forecast gas volumes.

17. It is notable the draft decision CPRG forecasts differ significantly between GPBs, from Vector's forecast of 1.57% to First Gas Distribution's -0.69% in the year ending 2023. This appears to reflect different views of GPBs around ICP growth. These divergent views illustrate the current uncertainty inherent in forecasting.

The growth rate assumed for Vector must be revised

18. The CPRG forecast for Vector in the draft decision does not align with the volumes delivered on our network which have been declining for the past four years. We acknowledge the CPRG forecast is consistent with Vector's 2021 AMP. However, this AMP was prepared with the assumption a revised AMP would be submitted once the government's response to the CCC recommendations was known. This AMP was not intended to provide a volume forecast to be used in DPP3.

19. Along with the major limitation that the government's response to the CCC recommendations remains unknown, the 2021 AMP does not reflect the ongoing disruption caused by the Covid pandemic, the impact on demand of Vector's move to 100% capital contributions and ongoing high gas prices caused by the scarcity of

commercial quantities of gas, nor the move by retailers to wash-up meter readings with a 12-month delay.

20. At the time the 2021 AMP was submitted, Vector wrote to the Commission advising them of the need to update the AMP forecasts once the government's response to the CCC recommendations were known. However, as the government's response to the CCC was delayed Vector did not provide a revised AMP as intended.

21. We do not consider the current CPRG forecast is fit for purpose as it relies on Vector's 2021 AMP forecast. This was prepared in a time in significant uncertainty, expressly labelled at "business as usual" AMP and cannot now reasonably be used to provide a forecast for DPP3.

22. A forecast based on current information is needed. We are happy to make our modelling experts available and would welcome further discussion and engagement with the Commission, for example through a workshop, to develop a more credible forecast.

Vector's experience developing forecasts for the gas network

23. Vector's last AMP was submitted to the Commission in June 2021. The decision was made at the time to prepare a 'standard' AMP consistent with previous inputs but re-submit in December 2021 once the government's response to the CCC recommendations was known. Vector advised the Commission of this when it submitted the AMP.

24. As the Commission is aware, Vector pushed for further workshops to discuss issues relating to the GPB reset, including the need for appropriate volume forecasts.

25. The forecasts in Vector's AMP were prepared with the significant limitation that the government's decision on the future of gas (and how it will portray gas to the public, thereby impacting consumer demand) is unknown.

26. Along with this limitation, significant events in the short term made identifying drivers and trends more difficult than in previous reset periods. In particular -
    - Covid lockdowns and the associated impacts on economic and residential activity;
    - High gas prices caused by scarcity of commercial quantities of gas;
    - The impact on demand from the move to 100% capital contributions; and

- The move by retailers to wash up meter readings with up to a 12-month delay (implemented because meter readers had difficulty accessing property due to Covid restrictions).

27. The ongoing impacts on gas volumes of these events were not clearly foreseeable at the time the 2021 AMP was prepared. Vector's initial assumption was that the reduction in volume was attributable to the Covid lockdown. Instead - post Covid lockdowns - gas volumes have continued to decline. Furthermore, this AMP was prepared on the understanding it would be revised once the government had responded to the CCC recommendations. It was not intended to provide a volume forecast to be used for the DPP3 decision.

28. Indeed, The Commission's expert report by Concept Consulting noted "*Vector's 2021 demand appears high based on most recent growth rates, but is more consistent with longer-term growth rate*."[1] This is reflective of the inherent uncertainty at the time the 2021 AMP was prepared and why the decision was made to produce a "business as usual" AMP that could be revised when the impact of recent events was more clear.

<u>The Commission's CPRG forecast for Vector does not align with volumes delivered on our network</u>

29. The CPRG forecast for Vector assumes gas volumes will increase over the DPP3 period. However, Vector has experienced declining gas volumes over the past four years.

30. *[redacted on the basis of commercial sensitivity]*

31. This reflects the significant limitations inherent in forecasting gas volumes in the current environment. We consider these differences are such that the Commission's adopted CPRG forecast for Vector is not fit for purpose.

<u>The forecast for Vector must be updated</u>

32. The divergence between actual volumes and the Commission's growth forecast is such that the Commission cannot reasonably rely on the Draft Decision forecast.

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[1] Concept Consulting, *Basis and methodology for producing gas demand projections to feed into the default price-quality path (DPP) regulation of gas distribution businesses: Prepared for the Commerce Commission* (15 November 2021), page 5

33. We request the Commission update Vector's CPRG forecast.

34. We are happy to provide further information to assist in developing a revised forecast. We would welcome the opportunity to meet with the Commission and their experts, including making our modelling experts available, to discuss the forecasts.

35. We acknowledge the difficulty in developing a forecast in the current environment. However, what is clear is that the current CPRG forecast for Vector is not fit for purpose and does not benefit from a further year's information and analysis in an environment subject to a high degree of change.

The Commission's expert report recognised significant uncertainty in the current environment and issues with a WAPC

36. The Commission's expert report into gas demand forecasting from Concept Consulting recognises significant uncertainty in the current environment. Concept Consulting considered two sets of forecasts, one consistent with projections by the CCC in its 'demonstration path' for the transition to net zero and one based on GPB AMPs.

37. Concept Consulting noted the difference in projections and that "*this results in GPB projections being substantially higher by 2028 than the CCC.*"[2]

38. Concept Consulting also highlighted issues with the WAPC. Concept Consulting considered the policy implications of the GPB and CCC demand forecasts and found "*this points to a deeper incompatibility between the current WAPC form of control and New Zealand's broader decarbonisation objectives...[as] under a WAPC control, GDBs are incentivised to grow gas demand.*"[3]

39. Concept considered the implications of the Commission using the GPB forecasts or the CCC-based forecasts:

"*This points to some tricky choices for which gas demand forecast to use:*

- *In the short-term consumers will enjoy lower prices if the GDB demand forecasts are used.*

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[2] Ibid, page 9

[3] Ibid, page 11

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- *However, if using the GDB forecasts creates a stronger incentive of GDBs to promote gas demand, it is likely that the long-term economic costs will be greater than if the CCC-based forecasts are used.*"[4]

40. Concept Consulting further noted:

    "*there is a particular challenge to choosing a demand forecast in that outcomes will be heavily dependent on future government policy decisions. In particular, whether or not the CCC recommended ban on gas connections from 2025 occurs. This creates an unmanageable risk for GDBs if the GDB-based demand forecasts are used, but the ban on fossil gas connections is subsequently implemented in policy.*"[5]

A revenue cap would better promote the Part 4 purpose

41. We agree with Concept Consulting's analysis that uncertainty around forecast demand may create unmanageable risk for GPBs under a WAPC. We do not consider this is consistent with the Part 4 purpose as it may create disincentives for efficient investment, particularly where GPBs are not confident in their ability to recover MAR owing to an incorrect forecast.

42. We also note that a WAPC could undermine actions taken by the Commission to mitigate asset stranding risk. If the Commission's forecast demand does not materialise, a GPB would fail to recover its MAR. We recognise this is an ordinary feature of the WAPC, however in the current context - where the Commission has brought forward revenue recovery due to an increased risk of stranding - it makes little sense to implement a form of control that could jeopardise this recovery.

43. As Concept Consulting highlighted, a WAPC is designed to provide an incentive for the regulated business to increase connections. This may not be an appropriate incentive for regulation to promote in the current context of New Zealand's transition to net zero. A revenue cap is more consistent with New Zealand's net zero target.

44. Accordingly, we urge the Commission to implement a revenue cap as the form of control for DPP3. This will better promote the Part 4 purpose by ensuring GPB incentives to invest efficiently are not undermined by quantity forecasting risk.

[4] Ibid, page 12
[5] Ibid, page 12

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45. While changing the form of control may add some additional complexity and cost, a revenue cap would be materially better than the status quo in terms of promoting both the Part 4 purpose and the net zero target. We therefore consider incurring any additional complexity or cost to change the form of control is justified.

46. As the Commission noted during the 2016 IM review:

"We consider that the quantity forecasting risk is potentially a problem because, under a WAPC, it can lead to either a significant revenue loss or a revenue gain for suppliers. When actual demand is higher than our forecast there will be a revenue gain for suppliers. If the opposite occurs and actual demand is lower than our forecast then there would be a revenue loss for suppliers.

The potential for the forecast to erroneously set revenue expectations too low for suppliers over a control period could potentially lead to inappropriate cut backs or deferral in expenditure and investment in order to maintain profitability. This would not be consistent with s 52A(1)(a). On the other hand, where revenue expectations are too high, this would imply an expectation of prices that are higher than they need to be."[6]

47. This problem is even more significant in the current context for GPBs.

48. We also note any complexity or cost in changing the form of control would be minor, particularly given EDBs and the GTB already operate under a revenue cap. The Commission already has extensive experience in implementing revenue caps.

A WAPC could have regressive impacts

49. We have significant doubts about the CPRG forecasts used in the draft decision due to the limitations inherent in producing a forecast in the current environment. In particular, Vector's CPRG forecast appears materially too high relative to the volumes we have experienced in the past few years. Accordingly, we consider the forecast used for Vector is not fit for purpose.

[6] Commerce Commission, *Input Methodologies Review Draft Decisions: Topic Paper 1: Form of Control and RAB indexation* (June 2016), at 31-12

50. Under a WAPC, the GPB will fail to recover MAR if the Commission's forecast growth does not materialise.

51. If the CPRG forecast is too high, the GPB would need to deliver increased gas volumes by encouraging new connections to be able to recover their MAR. This would clearly not be in the long-term benefit of consumers in the current context, given GPBs face an increased risk of asset stranding, and is inconsistent with the transition to net zero. However, it would be the unavoidable incentive created by the regulatory framework.

<u>If a WAPC is retained significant action will be needed to mitigate forecast risk</u>

52. If the Commission does not change the form of control to a revenue cap, significant further action will be needed to mitigate disincentives to efficient investment caused by forecast risk.

53. We consider the following actions would be necessary:

- The introduction of a CPRG re-opener; and

- The Commission would need amend its CPRG forecasts. At a minimum, Vector's CPRG forecast would need to be updated. We are happy to assist with developing a new forecast, including by making our modelling experts available to discuss with the Commission.

54. We note Vector recommended the introduction of a CPRG re-opener in our submission to the Process and Issues paper. We considered that an appropriately designed CPRG re-opener could address volume forecast risk if resources were not spent on changing the form of control. The Commission did not address this recommendation in its DPP decision.

55. We consider the introduction of a CPRG re-opener is the absolute minimum required to address volume uncertainty in the current environment.

56. We recognise the risk of volume uncertainty is two-fold. The CPRG forecast could be set too high causing GPB's to fail to recover their MAR. It could also be set too low causing prices to be set higher than they need to be. Accordingly, we would not be opposed to a re-opener that could be triggered by either the GPB or the Commission if the divergence between forecast and actual volumes exceeds an appropriate threshold.

57. In the absence of action to mitigate forecast risk, the long-term benefit of consumers will be compromised if a WAPC is maintained. As discussed above, the risk of significant forecast error is such that:
    - GPBs will be disincentivised from efficient investment due to concern they will not have a reasonable opportunity to recover their MAR;
    - The policy intent of bringing forward cash-flows to mitigate asset stranding would be undermined. This would jeopardise the FCM principle; and
    - GPBs would be incentivised to pursue volume growth in order to recover MAR. This could exacerbate stranding risk and consumer equity issues. It is also inconsistent with the legislative net zero target.

58. While these additional mechanisms would be necessary if a WAPC is maintained, they would introduce additional complexity into the price-path that could be avoided by simply introducing a revenue cap.

Accelerated depreciation

59. We support the Commission's decision to accelerate depreciation by shortening asset lives using an adjustment factor. This is a crucial step to support the expectation of ex-ante FCM. That is, to provide GPBs with an expectation of recovering all of their efficient costs, including sunk costs.

60. As the Commission explained in the Draft Decision, addressing "*the risk of economic network stranding is important to support the expectation of real ex-ante Financial Capital Maintenance (FCM) over the long-term and consistently apply our regulatory framework going forward. Early action lessons the chances of network stranding becoming unavoidable and helps preserve optionality for managing future uncertainty. As a consequence, we expect GPBs to be incentivised to continue to maintain safe and reliable service for consumers while being limited in their ability to extract excessive profits.*"[7]

61. The use of accelerated depreciation to bring cashflows forward is an accepted and appropriate regulatory tool to address the heightened risk of asset stranding faced by

[7] Commerce Commission, *Proposed amendments to input methodologies for gas pipeline businesses related to the 2022 default price-quality paths: Draft reasons paper* (10 February 2022) at 3.25.5

GPBs. We note this is a commonplace regulatory response to asset stranding risk. For example, Oxera's report describes approaches by the regulators in the UK, France, Belgium and the Netherlands to bring cashflows forward by amending the depreciation profile of network assets.[8]

Maintaining an expectation of FCM is the cornerstone of the Part 4 purpose.

62. The *Draft Decision* affirms the Commission's long-standing commitment to providing investment incentives through the principle of ex-ante FCM. As described by the Commission:

"*Our ex-ante FCM maintenance principle is key to providing investment incentives and an expectation of making a normal return on investments. Ex-ante FCM requires suppliers to:*

- *have an expected return on capital commensurate with their WACC; and*
- *a reasonable expectation that the RAB can be recovered through return of capital (depreciation) in the long run.*"[9]

63. We note FCM is a long-established principle, with the High Court in *Wellington Electricity & Ors v Commerce Commission* affirming FCM as being, "*central to the Commission's approach to Part 4 regulation and to regulatory control of natural monopolies more generally.*"[10]

64. The High Court explained that, "*FCM is seen as an outcome consistent with the making of normal but not excessive profits and is therefore an outcome that will also efficiently promote the purpose of, and outcomes sought by, s 52A(1).*"[11]

65. New Zealand's transition to net zero has materially increased the risk of GPB assets becoming stranded. The Gas Infrastructure Future Working Group report highlighted the difficulty for directors to approve investment in the face of a material risk of asset stranding:

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[8] Oxera, *Regulatory tools applied to gas networks to accommodate energy transition: Note prepared for Firstgas, Vector and Powerco* (26 August 2021)
[9] Commerce Commission, *Default price-quality paths for gas pipeline businesses from 1 October 2022: Draft reasons paper* (10 February 2022) at 6.13
[10] *Wellington Electricity & Ors v Commerce Commission* [2013] NZHC 3289, at 256
[11] Ibid, at 263

"*The gas infrastructure businesses are established as companies under the Companies Act 1993. The Companies Act requires that board directors of a company must act in what the director believes to be the best interests of the company. This duty raises several questions. For example, would directors be acting in the best interest of the companies they serve by approving capital expenditure on long-lived assets when they know that there was a significant probability that the expenditure may be 'stranded' and not recoverable and/or it was unlikely that expected return on that investment was not commensurate with the future risks of stranding.*"[12]

66. If the Commission does not take action now to address stranding risk, the principle of providing suppliers an expectation of ex-ante FCM will be breached. This would disincentivise efficient investment by suppliers to the detriment of consumers, as it would become economically unfeasible for a business to consider investing in long lived assets without an expectation of recovering this investment. Indeed, a director may be unable to discharge their fiduciary duty to act in their company's best interests if they considered approving new expenditure.

67. This would cause material harm to consumers who would experience a less efficient network and could see the network ceasing to operate at a time the service still had value for consumers.

Taking action to address stranding risk now is critical to support an expectation of ex-ante FCM

68. As recognised by the Commission, supporting the expectation of ex-ante FCM fundamentally underpins the Part 4 purpose and taking action now to meaningfully address stranding risk is critical to maintain an expectation of FCM over the long term. Accelerating depreciation is a crucial first step, although we consider further action such as un-indexing the RAB is also necessary.

69. Taking action to address stranding risk now is also critical to alleviate the impact on future consumers. Otherwise - as the asset stranding risk materialises - the burden of cost recovery would fall on those who were unable to disconnect from the network. Acting now better supports consumer equity and is appropriate to manage consumer vulnerability for those future consumers.

[12] NZ Gas Infrastructure Future, *Findings Report* (August 2021), page 53

70. As Vector's expert report from CEG explained, "*holding other things equal, the slower the rate that capital is returned to investors the higher the expected cost of future asset stranding and the higher the compensation required for that asset stranding.*"[13]

71. Houston Kemp considered the considered the potential consequences if the Commission failed to take action to address stranding risk in DPP3. Houston Kemp found that, "*if no change is made to depreciation during the 2022 to 2027 regulatory control period, the smoothed price path applying from 2027 would be 8.8 per cent higher than the smooth price path that would have applied from 2022, ie, prices will permanently be 8.8 per cent higher due to this decision.*"[14] This would certainly not be in the long-term interests of consumers.

72. CEG similarly noted, "*avoidable asset stranding may turn into unavoidable asset stranding if a regulator delays taking action to accelerate depreciation…if the regulator delays providing accelerated depreciation immediately avoiding stranding risk may not be possible in future years.*"[15] That is, if the Commission decided not to address stranding risk in DPP3, supplier expectations of ex-ante FCM would not be maintained.

73. A further benefit of accelerating depreciation is it will support future optionality of the GPB assets. As Houston Kemp's report discussed, "*A further advantage to acceleration of depreciation of existing assets is that this may support a smoother transition in the future to the use of gas pipelines to transport clean gases, if this becomes technically feasible... In particular, if the costs of providing gas pipeline services are not recovered from consumers of natural gas today, they may potentially be recovered from consumers of clean gas in the future. This could have the effect of delaying a transition to clean gas.*"[16] This will also better promote New Zealand's legislative net zero target.

74. Accordingly, we agree with the Commission's decision that promoting the Part 4 purpose requires stranding risk to be addressed in DPP3. This will -

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[13] CEG (on behalf of Vector), *Stranding Risk: Depreciation vs Uplift* (August 2021), at 25

[14] Houston Kemp, *Consequences of Declining Gas Pipeline Utilisation: A Report for Powerco, Vector and First Gas*, page 15

[15] CEG (on behalf of Vector), *Stranding Risk: Depreciation vs Uplift* (August 2021), at 22

[16] Houston Kemp, *Consequences of Declining Gas Pipeline Utilisation: A Report for Powerco, Vector and First Gas*, page16

- Support an expectation of FCM which is crucial to ensure suppliers retain incentives to invest.
- Support the welfare of future consumers by ensuring future prices are lower than they would otherwise have been and ensuring the cost burden of asset stranding does not fall on future consumers that were unable to disconnect from the network.
- Support the future optionality of GPB assets to provide a smoother transition to clean gases if this becomes technically feasible.
- Is NPV neutral so cannot raise any concerns around the ability of suppliers to extract excessive profits.

75. We agree with the Commission that the likely long-term benefits to consumers will outweigh any increased compliance costs or complexity incurred as a result of this change.

Compensation in equity beta

76. We note there has been confusion from some stakeholders around whether stranding risk is already compensated in the WACC through the equity beta.

77. We wish to highlight that the current material risk of GPB asset stranding (driven largely by Government policy around net zero and changing consumer demand) is not compensated in the equity beta (nor otherwise through the WACC).

78. As explained by the Commission in the Draft Decision, the WACC only compensates suppliers for 'systematic risks.' A 'systematic risk' reflects the extent returns generated by a particular asset vary with the returns generated by a broad market portfolio.

79. The Commission noted, "*While some economic stranding risk is systematic, 'non-systematic' factors are likely to pose a more material stranding risk for DPP3. Non-systematic risk refers to risks which affect an individual company or sector of the economy. In particular there is a risk of government policy changes and shifts in consumer demand for natural gas that specifically lead to economic network stranding for GPBs. We consider that the current Gas IMs do not currently provide adequate compensation for these types of risk.*"[17]

[17] Commerce Commission, *Default price-quality paths for gas pipeline businesses from 1 October 2022: Draft reasons paper* (10 February 2022), at 6.20

80. We note the Commission's decision to accelerate depreciation to compensate stranding risk is consistent with its previous IM decisions. In its 2010 IM decision, when considering asymmetric risk compensation, the Commission stated, "*Even if there were risks such as asset stranding, these can be dealt with in the roll forward mechanism for the RAB by allowing for a depreciation profile that front loads the allowed returns as stranding becomes apparent or allow the stranded asset to remain in the RAB. Presently, the Commission provides for such flexibility in its treatment of the RAB.* [18]

81. It is clear GDBs have not been compensated for the current risk of asset stranding through the WACC since - driven largely by government policy and shifts in consumer demand - this risk is non-systematic. As recognised by the Commission, since the current risk of asset stranding is not compensated in the WACC it is necessary to bring forward cash flows through accelerated depreciation to address this risk.

Certainty

82. We note the Commission's comments that, "*it is possible that further adjustments in future regulatory periods and/or changes to how network stranding risk is mitigated and/or compensated for will occur for GDB's. Where further adjustments to asset lives are made then, as noted above, it is possible for the mechanism to be used to extend lives, as well as shorten them, to account for new information and changing levels of risk if necessary.*"[19]

83. We suggest caution at leaving open the possibility of future adjustments to asset lives, as this could create significant uncertainty for investors.

Asset stranding model

84. We note the Commission's modelling of the winddown scenario is consistent with independent modelling produced by the Gas Infrastructure Future Working Group so stakeholders can be confident the modelling assumptions are fit for purpose.

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[18] NZCC, December 2010, *Input methodologies (electricity distribution and gas pipeline services): Reasons paper*, at H12.28.

[20] CEG (on behalf of Vector), *Stranding Risk: Depreciation vs Uplift* (August 2021), at 67

85. Vector, First Gas and Powerco also engaged Frontier Economics to review the Commission's Asset Stranding Model. Frontier suggested two aspects of the model could be improved. We have jointly submitted this analysis.

86. We recommend the Commission adopt Frontier's suggestions to correct these issues to support the robustness of the model.

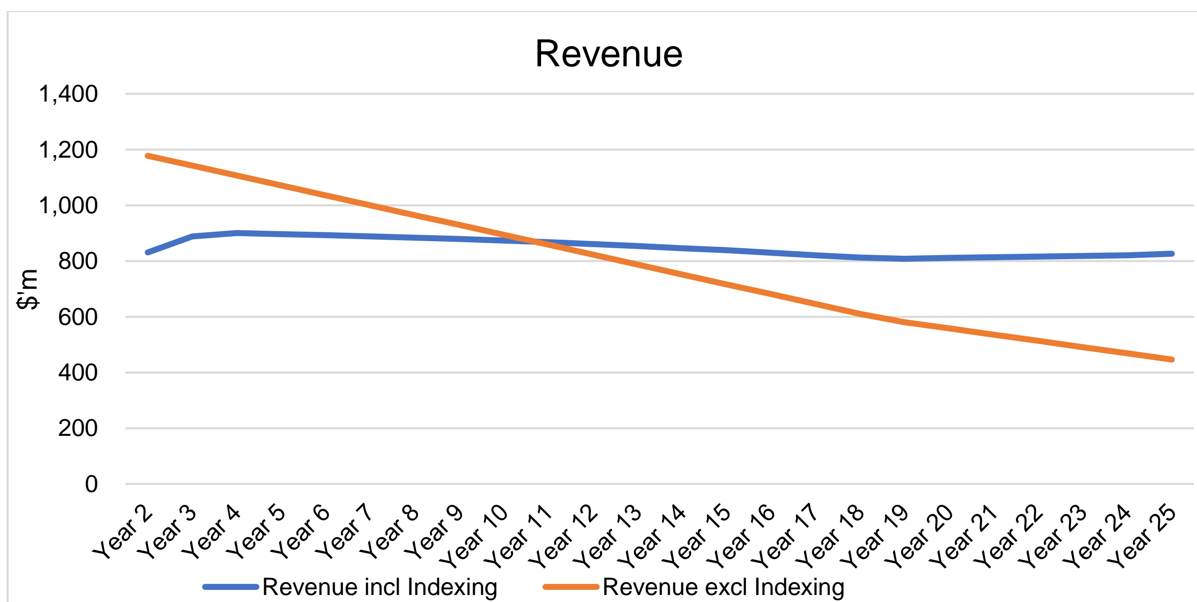
RAB indexation

87. Along with accelerated depreciation, we consider the Commission needs to additionally un-index the RAB from inflation in order to mitigate asset stranding risk.

88. RAB indexation has the effect of deferring the timeframe of capital recovery relative to an un-indexed RAB. In an industry facing heightened stranding risk this approach makes little sense as it leaves more of the RAB to be recovered from future consumers.

89. **Figure two** below provides an illustrative example of the cashflow profile of indexing versus not indexing the RAB.

Figure two: Cashflow profile of indexed versus un-indexed RAB



90. The *Draft Decision* declined to un-index the RAB from inflation for the following practical reasons -

- "*It is not necessary to remove RAB indexation to address stranding risk in DPP3. Stranding risk can be managed independently of inflation risk by accelerating depreciation*"; and
- "*There are implications for removing RAB indexation for shared assets between EDBs and GDBs, which would be difficult to work through within the constraints of the DPP process*."

91. We agree accelerated depreciation is the primary tool to mitigate stranding risk, however, we are concerned that applying an adjustment factor alone may not be sufficient to address the magnitude of stranding risk facing GPBs. We consider an un-indexed RAB is also be necessary.

92. We also consider any implications for shared assets could be easily addressed through the DPP process.

Is RAB indexation necessary to address stranding risk?

93. We agree the Commission's approach to accelerated depreciation in theory would allow the full recovery of the indexed RAB. However, we see a risk that - without a further action to bring cashflows forward - prices in later years could exceed consumer willingness to pay thereby foregoing FCM.

94. Vector's expert report from CEG considered consumer willingness to pay in the context of mitigating asset stranding. CEG noted that, "*avoidable asset stranding may turn into unavoidable asset stranding if a regulator delays taking action to accelerate depreciation.*" In CEG's modelling scenarios, *"this problem is remedied…by immediately, in 2022, removing inflation indexation and accelerating depreciation to raise regulatory compensation now and lower it in the future - such that it never passes above customers' maximum willingness to pay.*"[20]

95. If the RAB remains indexed, there is a risk asset stranding could still occur due the value of the RAB eventually exceeding consumer willingness to pay - even with accelerated depreciation. Another important consideration is whether the number of gas users (and the composition of users) that are likely to remain on the network out to 2050 would be sufficient for GPBs to recoup their required MAR.

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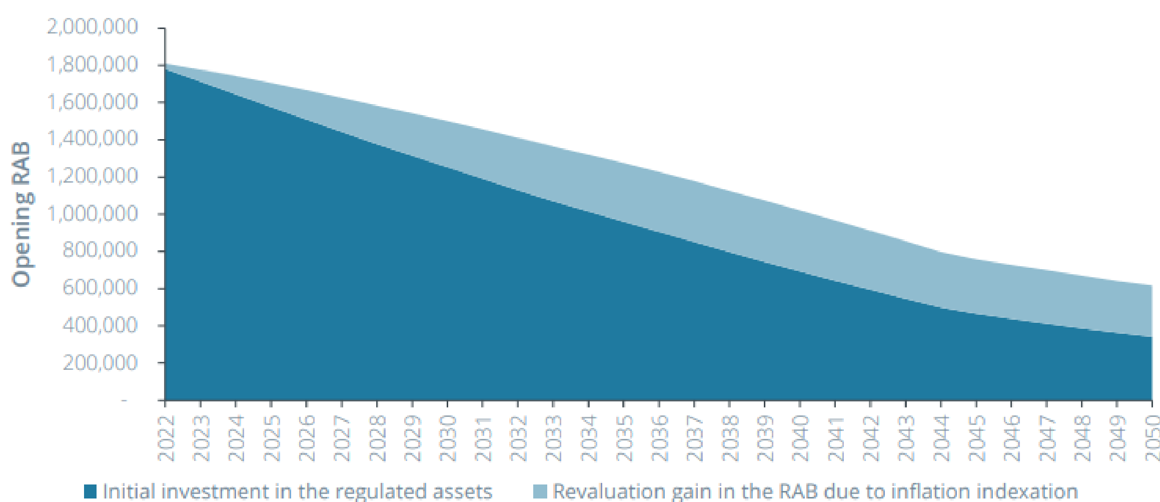
[20] CEG (on behalf of Vector), *Stranding Risk: Depreciation vs Uplift* (August 2021), at 67

96. We also note indexation leaves a significant portion of the RAB value to be recovered in future under the back-loaded profile. Frontier Economics' modelling submitted as part of the Process and Issues Paper considered asset stranding absent any regulatory change. Frontier forecast by 2050 the level of unrecovered industry-wide RAB would be $616M. Of the unrecovered RAB, $275m would be outstanding inflation resulting from the indexation model.[21] Frontier noted this was a very conservative assumption, as their model assumed nil further capex from 2021.[22] This is depicted in **Figure three** below.

Figure three: roll forward of total GPB RABs assuming no further capex beyond 2021



Source: Commerce Commission GPB financial model for DPP2; GPB Information Disclosures; Frontier Economics analysis

97. Accordingly, we are concerned even after applying the adjustment factor, a portion of the RAB could remain stranded if the cost of the outstanding RAB exceeds consumer willingness to pay. This risk could be mitigated by front-loading cost recovery when the consumer base is relatively large, before consumers begin migrating off the network - provided consumers are willing and able to bear the associated price increases.

98. We also note maintaining a backloaded cash flow profile appears to undermine the policy intent of bringing cash-flows forward to mitigate stranding risk.

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[21] Frontier Economics, *The Case for a Nominal Returns Framework for Regulated Gas Networks in New Zealand: A report prepared for Vector, Powerco and First Gas* (27 August 2021), at 45

[22] Ibid, at 43

99. Furthermore, it is typically argued an indexed RAB has the advantage of supporting future investment. This does not apply in an industry facing potential asset stranding.

100. Frontier's report described how approaches such as accelerated depreciation and un-indexation are complementary:

> "*a. If the scale of asset stranding faced by GPBs is very large, adoption of a nominal framework alone may be insufficient to mitigate the stranding risk problem fully. It may be necessary to adopt a combination of measures—such as a nominal returns framework coupled with accelerated depreciation through the shortening of asset lives—to ensure full recovery of GPBs' RABs;*
>
> *b. Adoption of a nominal returns framework would be a complement to, rather than an alternative to, any of the other approaches identified by the Commission. A key benefit of the nominal returns framework is that would reduce the extent to which the RAB grows over time. This would mean that there would be less RAB value in future years that needs to be recovered. Consequently, adoption of a nominal returns framework would allow more effective cost recovery to occur via accelerated depreciation. By contrast, maintaining a real returns framework would hinder cost recovery via accelerated depreciation, by allowing inflation indexation to continue to add to the RABs over time.*[23]"

101. The Part 4 purpose is best promoted by applying an adjustment factor to accelerate depreciation, along with un-indexing the RAB. The complementary approaches of accelerated depreciation and un-indexing would best support the expectation of FCM. It would provide confidence for suppliers that the risk of asset stranding had been fully addressed, along with allowing more effective cost recovery by reducing the growth (through inflation) of the RAB over time.

Implications for shared assets

102. The Commission also appeared to decline to remove indexation in the draft decision on the basis there would be implications for removing RAB indexation for shared assets between EDBs and GDBs which could not be addressed in the DPP process.

103. It is not clear to us what these issues are. We maintain a separate RAB for the EDB and the GDB. We also note calculating tax for information disclosure already requires us to

[23] Ibid, at 69

calculate the un-indexed closing RAB. We therefore already prepare an un-indexed RAB for this purpose.

Prices

104. We recognise the Commission's proposed approach to the starting price adjustment (SPA) and the rate of change reflects the necessity of taking actions to bring cashflows forward to mitigate increased stranding risk and the necessity of taking actions to avoid price shocks to consumers.

105. The Commission's draft decision to use an alternate rate of change where the SPA would otherwise exceed 10% in real terms balances these two objectives. If this adjustment was not applied, all GPBs would see a SPA exceeding 10%. We do note the 10% cap appears to be arbitrary. The Commission has not presented its analysis as to how it arrived at this number.

106. We are conscious of any price increases to consumers. However, for context, we note prices will remain low by historic standards. Part 4 regulation materially reduced prices over the past decade. For example, Vector's gas prices have reduced by about one-third in real terms since DPP1. Although prices will increase under the Draft Decision, they will still remain around 25% lower than the beginning of the current regulatory regime.

107. The table below depicts Vector's analysis of price changes since pricing year 2013. *[Redacted on the basis of commercial sensitivity]*

108. Accordingly, even with a more aggressive tilting of depreciation (including removing the deferred recovery of inflation) Auckland charges could increase by less than what customers historically paid for their distribution network.

109. We also note that moving to a revenue cap could also support the goal of avoiding price shocks as it would provide GPBs' with the option of voluntarily opting to defer price increases and wash-up unrecovered revenue in later years. This means GPB's would be better placed to manage the timing and extent of price increases relative to a WAPC (where a GPB foregoes any revenue it does not recover in a year and is therefore incentivised to recover the maximum amount each year).

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Expenditure

110. We are concerned that Vector's capex allowance for *asset replacement and renewal*, and for *reliability, safety and environment* has been significantly reduced from forecast. While the use of the DY21 figures will partly alleviate Vector's overall low capex acceptance rate in the draft decision, it could also result in less opex allowance due to Vector's lower opex spend in RY21. This is a concern as reduced capex, particularly on asset replacement and safety, necessitates higher opex to increase inspections of assets to ensure maintenance needs are picked up and addressed early.

111. Accordingly, we recommend the Commission maintain the 10% margin to the historical average capex projections we used to cap allowances. This would mitigate the reduction in Vector's allowance for *asset replacement and renewal*, and for *reliability, safety and environment*.

112. The Commission stated it removed the margin on the basis, "*We do not consider it appropriate to allow more capex than the historic average in circumstances where growth is expected to start declining, and where there is a heightened risk of asset stranding.*"

113. We recognise the logic in this approach in terms of network growth. However, the network is ageing and expenditure is still necessary to safely maintain it. While we support the introduction of capex re-openers intended to mitigate the risk of insufficient allowances, there are limitations to re-openers as a tool, given the time, expense and uncertainty involved in making an application. We consider the margin should be retained - at least in terms of asset replacement and safety expenditure.

114. We note there is an issue with the overall Part 4 approach of looking backwards to project future expenditure needs. Particularly in the current uncertain environment, past spend is not necessarily a good predicter of future needs. We hope this issue is addressed in the next IM review, as it impacts both EDBs and GDBs.

115. We also note New Zealand is currently facing rising inflation and cost pressures. This makes the Commission's inflation assumptions even more critical. An incorrect assumption around inflation could have a material impact on expenditure allowances and the ability of a business to invest.

<u>Expenditure in the Commission's idealised MAR profile</u>

116. The draft decision describes Commission's MAR profile as the revenue, "*we assume is effectively available as an 'envelope' to accommodate cost recovery, including accelerated depreciation*."[24]

Decommissioning costs in the idealised MAR

117. The MAR profile does not appear to include any costs associated with decommissioning the network. Decommissioning expenditure would be material and would be unavoidable if the wind-down scenario occurs.

118. Decommissioning costs should be factored in to the MAR profile

Relocations in the idealised MAR

119. We also note the Commission's MAR profile assumes no further relocations capex added to the RAB after DPP3. The Commission explained, "*our capex assumptions after DPP3 imply that either suppliers all have 100% capital contributions for relocations, consumer connections and system growth, or that these types of investments cease all together*."[25]

120. The assumption that suppliers would have 100% capital contributions is not correct for relocations capex. Vector is not entitled to full contributions where relocations are required by certain parties. There are legislative requirements around contributions to the costs of works required by various authorities, with the detail included in commercial contracts. Accordingly, we consider the Commission should allow for relocations capex to be included in the RAB beyond DPP3.

Capital contributions

121. The draft decision on expenditure assumes 100% capital contribution on DY22 customer connection capex.

122. This was assumed in Vector's AMP 2021 due to the change in Vector's capital contributions policy. However, in practice this is not the case. While Vector's policy

[24] Commerce Commission, *Default price-quality paths for gas pipeline businesses from 1 October 2022: Draft reasons paper* (10 February 2022) at 6.122
[25] Ibid, at 6.124

changed to recover 100% contributions, Vector has legacy agreements that remain in place applying to assets commissioned in DY22 and DY23.

123. There is a gap of *[redacted on the basis of commercial sensitivity*]. We request the Commission correct this in the final decision.

Software as a service

124. Recently the IFRS Interpretations Committee (IFRIC) published two agenda decisions clarifying how arrangements in respect of a specific part of cloud technology, Software-as-a-Service (SaaS), should be accounted for. IFRIC's decisions could result in expenditure previously treated as capital expenditure being treated as operating expenditure in the future. We recommend the Commission takes these recent IFRIC decisions into account when setting future expenditure allowances

Decarbonisation expenditure

125. Vector has a current project to mitigate carbon emissions by addressing gas leaks. This was not implemented in time to be included in the 2021 AMP so is not currently included in the draft DPP3 allowances. It will be included in our 2022 AMP.

126. Vector proposes to update its approach to surveying the network for gas leaks by moving from two yearly surveys to quarterly surveys. This would reduce emissions by 1380 tonnes at an annual cost of $320k (opex), along with a one-off capex spend of $600k.

127. However, we request this is included in the final decision as it would materially reduce Vector's carbon emissions and support the transition to net zero.

Length of regulatory period

128. We support the Commission's decision to impose a four-year regulatory period. Given uncertainty in the sector and upcoming policy decisions on net zero, it is appropriate to impose a shorter regulatory period.

129. This will better promote the long-term benefit of consumers by ensuring developments can be reflected in the next price-path at the earliest opportunity.

vector

Quality standards

130. We support the Commission's decision to retain current quality standards and to not implement any new quality standards for this DPP.

131. We agree with the Commission's reasoning that current quality standards are fit for purpose and that, "*there are other regulations and incentives that ensure that GPBs maintain quality of service as non-compliance or deterioration of quality of service could cost GPBs more.*"[26]

132. In the current uncertain environment for GPBs it is appropriate that the focus of the reset is on providing an appropriate revenue recovery pathway.

133. It is clear GDBs have not been compensated for the current risk of asset stranding through the WACC since - driven largely by government policy and shifts in consumer demand - this risk is non-systematic. As recognised by the Commission, since the current risk of asset stranding is not compensated in the WACC it is necessary to bring forward cash flows through accelerated depreciation to address this risk.

Re-openers

134. We support the introduction of new capex re-openers to address capacity and risk events. Re-openers should apply to increases in cost as well as events. We recommend the re-opener provisions be neutral as to whether capex or opex expenditure is incurred. While the situations targeted by the re-opener provisions are more likely to relate to capex, there may be situations where opex is more efficient (or a combination of capex and opex together). We do not see an advantage to limiting re-openers to capex, and in some circumstances, this could disincentivise the most efficient solutions.

135. Vector's submission on the Process and Issues paper recommended that- if a WAPC is maintained as the form of control - the Commission introduce a CPRG re-opener to mitigate the risk of an inaccurate CPRG forecast. The Draft Decision did not appear to address this suggestion.

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[26] Ibid, at 7.18

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136. We consider the Commission should change the form of control to a revenue cap. However, if the WAPC is maintained, we still consider the introduction of a CRPG forecast re-opener is necessary. As described above, uncertainty in the current context is such that we are not confident a reliable CPRG forecast could be produced. In the absence of mechanisms to mitigate forecast risk, there is a real risk efficient investment will be disincentivised.

137. As discussed earlier in this submission (see paragraph 53 onwards), we consider the introduction of a CPRG re-opener is the minimum needed to address forecast risk.

138. However, we note this would add uncertainty into the price path that could be easily avoided by simply changing the form of control to a revenue cap. This would better promote certainty and is consistent with the approach for EDBs and for the GTB.