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POWERCO FEEDBACK ON GAS DPP PROCESS AND ISSUES PAPER

Aotearoa New Zealand is preparing to rapidly evolve as the country embarks on an adaption and mitigation path in response to our global climate change commitments. The energy sector is delicately balancing how we can do our fair share to meet emission reduction targets, with consumer expectations for reliable and continuous supply of energy at an affordable price, and commercial realities around infrastructure investment in an uncertain regulatory environment. Powerco is one of Aotearoa's largest gas and electricity distributors, supplying around 340,000 (electricity) and 112,000 (gas) urban and rural homes and businesses in the North Island. These energy networks provide essential services and will be core to Aotearoa achieving a net-zero economy in 2050.

The Default Price-Quality Path (DPP) reset for gas pipeline businesses forms a crucial input to ensuring gas infrastructure can meet its safety and reliability obligations as a lifeline utility and support New Zealand's emissions targets over the medium and long-term. The Climate Change Commission's final advice to the Government projects a decline in natural gas use while recognising a potential role for natural gas pipelines to deliver low carbon gases. This uncertainty has introduced new issues, risks and forecasting challenges that need to be accounted for in the reset process.

Like climate change response, regulatory action and inaction will have implications in the long-term. Our summary views on the process and issues raised by the Commission are:

Process

Plan and account for optionality

- We'll support the Commission to work through the issues with rigour and pace to ensure collective effort is efficient and prioritised
- The reset decision needs to reflect the ability to 'course correct' at the next reset, requiring clarity from the Commission about 'now' and 'later' options
- Given the interdependencies between solutions – early clarity from the Commission about the general path is essential for an efficient process

Issues

Consider future consumers

- The Commission has summarised well the range of issues affecting the sector, largely driven by Aotearoa New Zealand's decarbonisation goals
- A key challenge is the ability to balance the interests of current and future consumers, particularly price impacts and network safety/reliability
- We support a fast-tracked process IM review to address economic stranding risk for GDBs, focussing on accelerated depreciation and indexation

We recommend the Commission's priority is addressing stranding risk

The potential impacts on gas distribution businesses and consumers – in the near and long-term - are very material. So, it's essential to examine how the tools available to the Commission under DPP can be applied now, and then again at the next reset. We think priority should be given on adapting the building blocks approach for accelerated depreciation and indexation as it is an effective solution both now, and at the next reset.

To help inform this assessment and prioritisation, Powerco has co-sponsored with Vector and Firstgas several expert reports: Frontier (treatment of CPI indexation), HoustonKemp (accelerated depreciation), and Oxera (regulatory tools to support New Zealand's energy transition). A coherent approach to addressing this issue will flow through to the treatment of other issues to account for resource and timing requirements, as well as the opportunity to address via the 2023 IM review and the next gas DPP reset (2026 or 2027). Attachment 2 provides additional feedback on addressing the risk of partial capital recovery. Attachment 3 provides Powerco's feedback on other issues.

Design the process to maximise the value of time and shared resources

The consultation period for this process and issues paper is relatively short. This creates a useful time window over the next six months or so for the Commission and stakeholders to respond to the complexity of and interdependencies between the issues and options. Our submission focusses on where we think effort is best directed in the near-term, recognising that there will be options that can be explored later. For the near-term, engagement with stakeholders will benefit from issue-focused forums, discussion, and analysis rather than solely by written submissions.

We look forward to engaging with the Commission over the coming months to support this reset decision. If you have any questions on this submission, please contact Nathan Hill (Nathan.Hill@powerco.co.nz).

Yours sincerely



Andrew Kerr
Head of Policy, Regulation, and Markets

Attachment 1 Powerco's gas network

We are an essential energy infrastructure provider for Aotearoa

Powerco's gas business manages a key infrastructure for Aotearoa's economy, safety, and population wellbeing. We are an asset owner and operator. We do not own the gas flowing through our pipelines. Our responsibility is to ensure gas is safely distributed to our customers.

We are a lifeline utility. This means that we have a duty to maintain operations 24/7, including in the case of a major event like an earthquake or a tsunami. This is a requirement under the Civil Defence Emergency Management Act. Important infrastructure relies on our services to maintain theirs: hospitals, food processing plants, schools and universities, hotels and office towers, crematoriums, and individual households just to name a few.

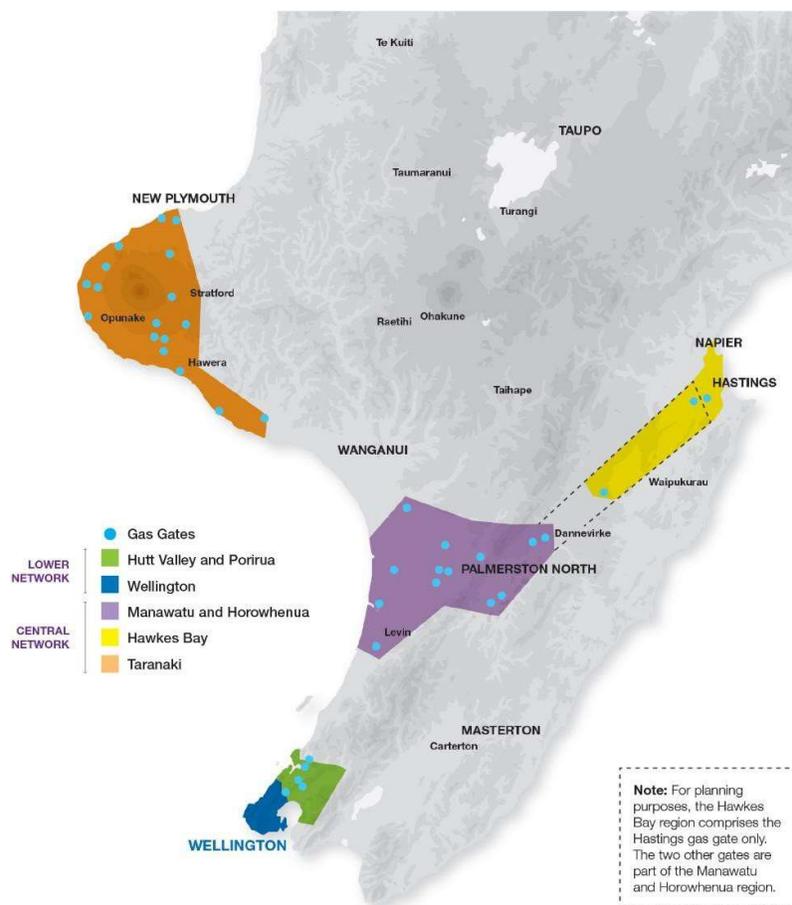
We service a large part of Te Ika-a-Māui

Our gas distribution system starts where Powerco takes custody of a retailer's gas from the Transmission System Operator (TSO) at a designated gate station handover point. It usually ends at the inlet of the Gas Measurement System (GMS) that supplies the end user (our customer).

Our network serves ~112,000 customers across five regions:

- Wellington
- The Hutt Valley and Porirua
- Taranaki
- Manawatu and Horowhenua
- Hawkes Bay

These regions can be further subdivided into 36 gate stations that feed 34 individual distribution segments.

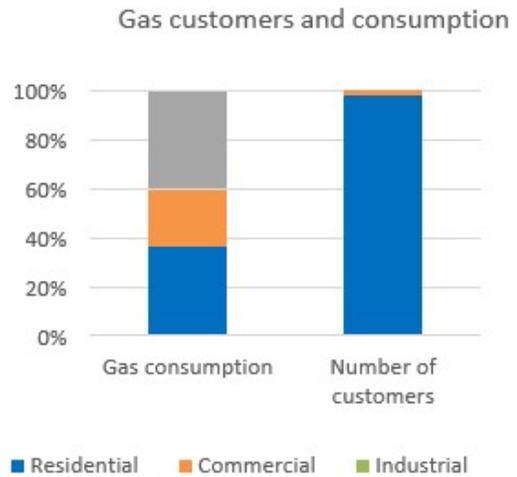


Our customers are aware of the impact of gas on their carbon footprint

Our 112,000 customers consume ~8.7 PJ of gas every year. The distribution of gas consumption and customer numbers is shown on the adjacent chart.

Industrial and commercial customers account for most of the gas conveyed through the network, though they are only a fraction of our customer numbers. Residential customers on the other hand, account for the vast majority of connections.

We have been working with our customers so they can understand the emissions impact of their gas use. Our commercial and industrial customers have had a focus on energy efficiency and have started using voluntary offset schemes. For residential customers, we have been providing education about the carbon footprint on our website



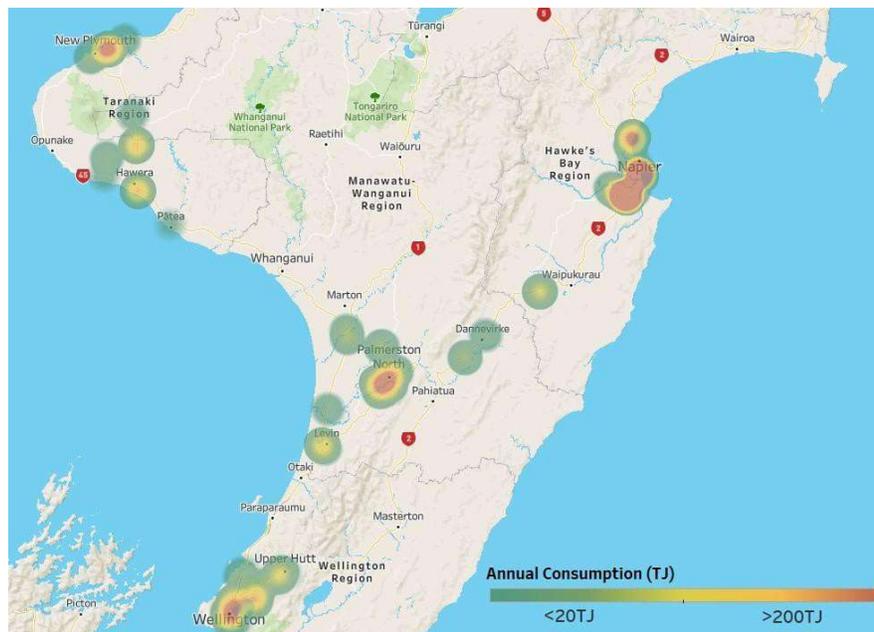
Who are our industrial and commercial customers?

Industrial and commercial customers consume over 60% of the gas we deliver annually. There are a diverse range of businesses using gas and they're geographically spread across the footprint of our North Island network.

The adjacent figure shows the geographical diversity of gas demand from our larger commercial and industrial customers (around 90). Of these,

- 30% are in the food processing sector
- 20% are in the manufacturing sector
- 10% are in the healthcare sector

The Hawke's Bay region accounts for around 20% of customers though over 40% of the demand from the group.



The table below breaks down the full set of commercial and industrial customers by ANZIC category and their geographical locations.

ANZSIC Group Description	Total	Hawkes Bay	Manawatu -Wellington Horowhenua	Hutt Valley - Porirua	Taranaki
Agriculture, Forestry and Fishing	57	4%	30%	0%	63%
Mining	13	0%	0%	0%	100%
Manufacturing	377	27%	26%	6%	18%
Electricity, Gas, Water and Waste Services	34	6%	38%	18%	24%
Construction	34	6%	0%	50%	18%
Wholesale Trade	49	12%	35%	22%	12%
Retail Trade	136	14%	24%	25%	6%
Accommodation and Food Services	680	18%	17%	30%	15%
Transport, Postal and Warehousing	34	0%	18%	44%	18%
Information Media and Telecommunications	17	0%	12%	47%	0%
Financial and Insurance Services	28	7%	14%	68%	0%
Rental, Hiring and Real Estate Services	178	4%	8%	68%	1%
Professional, Scientific and Technical Services	70	0%	21%	46%	9%
Administrative and Support Services	8	0%	0%	25%	0%
Public Administration and Safety	184	13%	26%	11%	15%
Education and Training	394	8%	19%	21%	17%
Health Care and Social Assistance	242	12%	20%	21%	14%
Arts and Recreation Services	119	5%	11%	24%	27%
Other Services	286	14%	16%	12%	10%
Not Elsewhere Included	28	7%	14%	21%	7%
Total	2968	13%	19%	24%	15%

We are a natural monopoly, regulated by the Commerce Commission

Under Part 4 of the Commerce Act, Powerco’s revenue and expenditure are set by the Commerce Commission. We are also subject to significant information disclosure requirements, publicly publishing our investment plans, technical and financial performance.

The regulatory regime allows us to recover the value of our asset base using a regulated cost of capital (WACC) set by the Commission, and a forecast of our expenditure. Every five years, the Commission reviews its forecasts and resets our allowable revenue. This process is designed to ensure the costs paid by customers for us to manage and operate our network is efficient given we are a monopoly and an essential service. These mechanisms include the ability for networks to recover the costs of long-life investments over their long life. Should policy settings compromise these arrangements by limiting the life of the networks (asset stranding), new regulatory or policy settings will be needed.

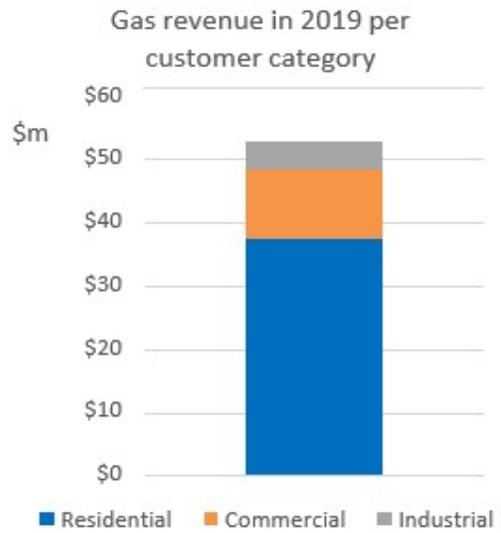
Our costs are fixed, and residential customers are our economic engine

The cost of operating our business is not dependent to the amount of gas we distribute in our networks. These costs reflect the need to maintain the safe operation of the network and are mostly driven by compliance with safety regulations. This includes replacing assets when they reach their end of life. Additional costs to grow the size or the capacity of the network are often met by customers requiring the upgrade or new connection.

When it comes to billing customers, the regulatory regime allows us to set up our tariffs in a way that reflects our customers' willingness to pay.

Gas tariffs have a fixed and a variable component. The ratio is not reflective of our cost structure but represent customer preference. By doing this, we take on board some of the volume risk which in return attracts customers to connect to the network.

Having more customers mean that these fixed costs are more efficient: you serve more, for the same cost. Ultimately, it creates long-term benefit for all customers. Because they make up most of our connections, residential customers represent more than half of our annual revenue.



Attachment 2 Powerco's feedback on addressing the risk of partial capital recovery

Consumers and GDBs are facing an increased risk of economic network stranding (or partial capital recovery). This applies to the existing network as well as investments required to meet safety and reliability needs. How and when to address this risk are questions that need answering as long as gas pipelines remain regulated monopolies¹.

Priority should be given on adapting the building blocks approach for accelerated depreciation and indexation. The reports from Frontier, HoustonKemp, and Oxera provide succinct and independent views on the suitability of these approaches for managing stranding risk in the New Zealand context.

We understand that decisions on addressing economic network stranding risk may be challenging for the Commission - it has a short amount of time and imperfect information. Despite this, we think the Commission can have confidence that taking meaningful action now to address economic network stranding risk aligns with monopoly regulation and the long-term interests of consumers.

Leverage the flexibility of the regulatory regime

The Commission should take a long-term view of economic network stranding risk (beyond the immediate regulatory period) to properly assess the potential consumer impacts. This approach is necessary because of the lengthy profile of GDB capital recovery. Core to this will be working through how regulatory settings made in 2022 and in 2026 address the material issues facing the sector. This approach consciously leverages the flexibility of the regulatory regime.

GDBs currently have limited ability to manage the increased stranding risk

The issues paper notes that GDBs have the responsibility and means to mitigate at least part of the increased risk of economic network stranding. We support the need to review all the tools and options available to all parties.

Risk related to network assets that serve existing customers are currently beyond the control of GDBs. This existing asset base is where most of the risk lies in the medium-term, which is why we think it's a priority issue for the 2022 reset. Powerco's 2020 gas Information Disclosure shows that our existing network asset base was \$387.5m, annual capex \$17.6m, and around \$6.7m related to consumer connections, with the remainder largely relating to systems, renewals, and reliability.² Stranding risk exists even if there is no consumer connection capex.

GDBs have some options about how to manage investment in new connections and assets. There are several considerations. For example:

- **Choice** Gas connections are being chosen by residential and business customers for a range of reasons e.g. the scale of renovation costs and being a lower carbon and more reliable energy source compared to some alternatives. Connections will be a combination of these consumer preferences along with market and policy settings.
- **Flexibility** We can assess and adjust our contributions policy at any time, and will do so as/when it's prudent to do so. AMPs will be updated too. Regulatory reset decisions are made every five years, so it's understandable and should be expected that the status of the

¹ Deregulation is not mentioned in the Commission's paper as an issue. If gas pipelines are to remain regulated, then the regulatory settings that determine revenues must work as a package to support their viability e.g. financial capital maintenance and investment incentives.

² Powerco 2020 Gas Information Disclosure.

contributions policy and regulatory settings can be different at any point in time and for a variety of reasons. One scenario is that connections continue to grow before a (policy-mandated) decline. We can't forecast how our approach to new connections will evolve to reflect policy that hasn't been finalised yet. We can, however, update our policy to reflect customer expectations and policy settings as they evolve.

There is significant upside to addressing economic network stranding risk now, not later

There are good reasons for taking meaningful action now, including:

1. Making change now will allow the Commission and GDBs to address the risk related to existing assets. At present, the Commission and GDBs have limited tools available under the DPP to address the risks and potential impacts related to GDBs existing assets. In the immediate term, existing assets are where most of the risk lies, it is vital to introduce mechanisms that target these assets.
2. It will enable the Commission and GDBs to respond to changes that might arise during the DPP regulatory period in a considered way via the IM review and the next DPP reset. This will provide confidence the regulatory framework can support businesses and consumers through change.
3. Acting now reduces the risk that regulatory intervention is too late. If the Commission waits until the next DPP reset (DPP4) the risk of economic network stranding and the potential impacts on GDBs and consumers will almost certainly have increased. Frontier's analysis suggests the cost of delaying a move to nominal indexation would be around \$65 million across pipeline businesses. They also note: "*...the longer the Commission defers a decision to adopt a nominal returns framework, the greater would be the RAB value stranded in 2050 (all else remaining equal)*" (section 3.8). One approach that could be explored to frame and quantify the timing issue is the WOOPs model (Windows Of Opportunity PaSt)³. It is essentially a method of quantifying the point after which it is too late to front load depreciation given the various other factors affecting demand for the regulated/unregulated service.
4. Bringing forward cash-flows can help control future price impacts (the best opportunity to protect consumers is now). Slightly higher prices now across a larger customer base can help mitigate future price increases and result in more equitable outcomes. If gas customer numbers decline the customers who have the least ability to switch away and the least ability to bear price increases will be the ones who face higher prices. Intervening now will reduce the size of future price increases for this more captive and vulnerable group of customers. HoustonKemp illustrate this effect in Figure 2.3 of their report, where average pipeline revenue per GJ is over 5x higher in the 2040s than the 2020s due to impact of lower utilisation being mis-matched with the value of the network assets.
5. It will help ensure GDBs have incentives to invest to maintain safety and reliability. Currently, capital recovery occurs over the physical life of the asset – for some assets, this is 70-80 years. Maintaining this approach creates a challenge. At face value, there is a disincentive to invest because it produces a capital recovery profile that is potentially misaligned with economic stranding risk and New Zealand's climate policy. Conversely, expenditure is still required to

³ <https://www.erawa.com.au/cproot/20983/2/Final-Plan-Attachment-9.2-Assessment-of-the-Economic-Life-of-the-DBNGP-Public-.pdf>

operate and maintain the network to meet safety and reliability requirements. Our analysis of demand scenarios indicates that over 90% of our sub-networks could still be required late into the 2040s due to the geographic diversity of customers. Bringing forward cash flows (adjusting the recovery profile) is a useful first step to improve investment incentives. There is time to fully resolve the approach to this type of expenditure as it requires a degree of coordination with wider policy settings.

What are the impacts of doing something now?

There are impacts for customers of bringing forward cash flows relative to a business as usual (i.e. as if there was no stranding risk from climate change policy). In this context, the impacts can be summarised as:

- Prices increase in the near term (crystallising the impact of policy decisions affecting the sector)
- Because of the possibility of repurposing of networks to support low carbon gases, consumers who subsequently disconnect may partly pay for the network supplying future gas consumers.
- It will create extra work and costs for the Commission and stakeholders to review and amend the Input Methodologies (IMs)

We consider that the upside of doing something now outweighs the downside costs.

Tools the Commission should consider that can address economic stranding risk

When selecting the tool or tools to address economic stranding risk, the key decision-making criteria should be simplicity and effectiveness. Mechanisms that meet both criteria should be preferred to those that don't. It is possible that multiple mechanisms may be needed to effectively address economic stranding risk.

Taking into consideration these criteria, the mechanisms the Commission should consider include:

- **Accelerated depreciation [priority]**

The benefit of accelerated depreciation is that it has been considered before and is already part of the Commission's EDB regulatory tool kit. We believe it can be an effective tool if the asset lives adjustment factor is appropriately specified. Ideally the Commission wouldn't place a cap on the reduction in asset lives. Instead, we recommend that GDB's and the Commission work together during the approval process to come up with an appropriate rate for the GDBs assets.

The HoustonKemp report provides a helpful commentary about how accelerated depreciation can help manage declining network utilisation.

- **Removing RAB indexation [priority]**

Considering the increased risk of economic network stranding, a nominal returns framework would better promote the Commission's policy intent to provide suppliers with the expectation of real financial capital maintenance (FCM). Relative to a nominal framework, the real returns framework increases the risk of partial capital recovery because it (revaluations) defers the recovery of capital that could become stranded. In contrast, a nominal returns framework reduces the risk of partial capital recovery because it brings forward capital recovery (in an NPV-neutral way) and reduces the RAB value that could become stranded.

If New Zealand continues the recent high inflation (CPI was 3.3% for the year ending June 2021) revaluations could materially increase the RAB during the next regulatory period, thereby only increasing the amount of RAB that is at risk of being economically stranded.

- **Changing the profile of depreciation for asset classes [priority]**

This would help mitigate the stranding risk for new assets and improve GDB incentives to operate and maintain networks to meet safety and reliability needs.

- **Ex-ante allowances**

We think this could be a useful tool to explore at the next reset to support accelerated depreciation and indexation solutions, or potentially address the risk around security and reliability capex.

- **Targeting new assets only**

This is a partial solution because it doesn't address the risk related to existing assets, but it could be a useful complementary tool.

Alignment between GDB green-gas investment plans and concerns about increased economic network stranding risk

The issues paper mentions:

"It is difficult to reconcile some GDB views that networks will grow, facilitated by subsidy, while simultaneously seeking an ability to depreciate existing and new assets at a faster rate".⁴

While this comment is possibly not directed at Powerco, we can understand how stakeholders might find this a difficult set of circumstances to reconcile. It's not quite as simple as portrayed by this statement because of the uncertainty about when and how network use may evolve over the medium and long-term.

- Powerco (and possibly other GDBs) have developed 10-year expenditure forecasts with a cautious approach that reflects the uncertainty about imminent government policy – we haven't made guesses about future policy. When government policy is announced it will be reflected in our expenditure forecasts.
- The amount we are investing now (before Government policy is announced) is minor compared to the invested capital that is still to be recovered. For Powerco, the current asset base is around \$388m. This point is demonstrated in the Frontier Economics report in the context of indexation.

Tools used by overseas regulators to manage asset stranding risk

Many overseas regulators and suppliers are also grappling with the issue of increased risk of asset stranding. Oxera have summarised the policies some European regulators have used in recent price controls to manage asset stranding risk.

⁴ Process and Issues paper, paragraph B40

Attachment 3: Powerco's feedback on other issues

Topic	Commission' proposed options	Powerco view
Price setting	Roll-over or an assessment of current and projected profitability	Powerco supports starting prices being set by assessing a GDBs current and projected profitability. We prefer this approach because it will allow for the implementation of IM changes such as accelerated depreciation and removing RAB indexation, that can address the risk of economic network stranding.
Expenditure allowances under a BBAR approach	<ul style="list-style-type: none"> • Top-down approach • Opex base-step-trend 	<p>Powerco supports a top-down approach to assessing GDBs expenditure allowances. We think the extra effort to undertake a bottom-up approach is unlikely to be of additional benefit.</p> <p>The Government's response to the Climate Change Commission's final advice should provide more certainty about GDBs future consumer connection and system growth capex. The base step and trend approach to setting opex allowances is worth consideration.</p>
Capex reopeners	Introduce capex reopeners to deal with foreseeable projects with uncertain cost and timing, and unforeseeable projects	Powerco supports inclusion of capex re-openers in the DPP framework for gas businesses. The reopeners that are available in the Electricity DPP should be reviewed to ensure they capture the types of uncertainties affecting gas businesses.
Form of control	<ul style="list-style-type: none"> • Weighted average price cap (WAPC) • WAPC with demand reopeners • Revenue cap 	<p>The merits of alternatives forms of control, such as revenue control, should be considered as part of the DPP reset.</p> <p>A WAPC may create incentives to under-invest</p> <p>The key issue with a WAPC is that it exposes GDBs to regulatory quantity forecasting risk, and this creates incentives to under-invest.</p> <p>Demand forecasting is difficult in the current environment, and GDBs are exposed to the risk that actual demand will differ materially from the forecast determined by the Commission to set the WAPC. This exposes GDBs to the risk that profitability differs significantly from the Commission's and investors' expectations. In these circumstances, the risks attached to the regulatory demand forecasts may create an incentive to invest less than would be optimal, and less than is in the long-term interests of consumers.</p> <p>WAPC with a demand reopener</p> <p>We think the Commission's idea of a WAPC with a reopener to manage demand risk has merit. Greater sharing of demand risk between GDBs and consumers is consistent with the reality that both groups are not well placed to manage this risk.</p> <p>Revenue cap</p>

Topic	Commission' proposed options	Powerco view
		<p>A change to a pure revenue cap improves incentives to invest because it removes a GDBs exposure to demand forecasting risk. As noted by the Commission there is a trade-off, as the change will shift the risk of demand volatility during the regulatory period from the GDB to consumers. However, the positive impact for consumers of removing disincentives to invest may be much more significant.</p> <p>If the Commission introduces capex and demand reopeners it may be easier to apply these under a revenue cap.</p>
Length of regulatory period	4 vs 5 years	<p>Length of the regulatory period (4 or 5 years)</p> <p>Adopting a 4-year period would be consistent with adopting of solutions to manage priority issues such as stranding risk. It would provide the earliest feasible decision point to refine and/or adapt the regulatory settings for policy and other influential policy and regulatory activity over the intervening period e.g.</p> <ul style="list-style-type: none"> • the IM review (2023) • a New Zealand energy strategy (potentially 2022-23) <p>other policy and market decisions relating to the first emissions reduction plan 2022-25. A shorter regulatory period would also help mitigate the impact of any forecast risk eg demand, CPI.</p> <p>One reason for retaining a 5-year period (ending Sept 2027) is to ensure any implications of the 2036-2040 emissions budget period can be accommodated. In short, the Climate Change Commission's advice is due December 2024 and the Government response by December 2025. A 4-year period would require a reset <i>decision</i> by the Commission in May 2026, so consultation on the process and issues would be at the same time as Government consultation and decision making on the budgets. This is the situation all parties will be handling over late 2021 – this is less than ideal given the potential impacts of Government policy decisions on gas infrastructure</p> <p>A 5-year reset would allow this process and issues to occur in 2026, with a decision in May 2027, all of which would follow the Government's decision.</p>
WACC - Market Risk Premium (TAMRP)	Increase from 7% to 7.5%	Powerco supports the TAMRP being increased to 7.5%.
Innovation	The Commission's initial view is that innovation allowance for conveying gases other than natural gas would appear to be beyond the scope of Part 4.	Innovation allowances to undertake trials and investigate the viability of green gases can support New Zealand's decarbonisation goals. So, the Commission needs to be confident, and provide evidence, that these allowances are beyond the scope of Part 4.

Topic	Commission' proposed options	Powerco view
		Addressing the increased risk of partial capital recovery and improving incentives to invest will support GDBs to innovate. Without increased surety on investment returns, GDBs may be hesitant to allocate meaningful funding to innovation activities, such as undertaking commercial trials with alternative gases and exploring options to re-purpose the existing network footprint.
Quality standards		Powerco supports the retention of the RTE standard in the DPP. We are not aware of any additional standards that are useful to GDBs or Consumers.