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L1 Capital appreciates the opportunity to make this submission following the release of the *Chorus price-quality path from 1 January 2022 – Draft decision*, ahead a final decision due in the December quarter of this year.

L1 manages money for a range of clients including large superannuation funds, global endowment funds, high net worth individuals and retail investors. L1 invests globally with North America, Europe, UK, Australia and NZ being key focus areas and has made significant investments in New Zealand over the last 6 years. L1 would like to thank the Commission for the opportunity to present its views as an equity investor.

Overview

As we noted in our submission of 28th May on the Initial Asset Valuation, the Commerce Commission's decisions to date appear to constitute a pattern of policy decisions leading to an under-recovery of Chorus' investment in the UFB network. This trend seems to have continued with the draft decision (27th May) on Chorus' price-quality path.

We note that while the Commission has used Chorus' "IAV compliant" RAB of \$5.5 billion in its draft decision, it is our firm view that this RAB value significantly underestimates the true value of Chorus' costs to participate in the UFB project. If the true cost of equity and Crown financing had been reflected through the earlier processes run by the Commission then we estimate the valuation would have been more than \$7 billion.

In terms of approach, the Commission references the purpose statement in section 162 of the legislation as guiding its process to date. While end-user benefits are the primary focus of the legislation, those benefits are described by section 162 as being linked to "outcomes produced in workably competitive markets" with specific reference to incentives for fibre service providers to innovate and invest. We do not believe the Commission's approach to date supports such outcomes.

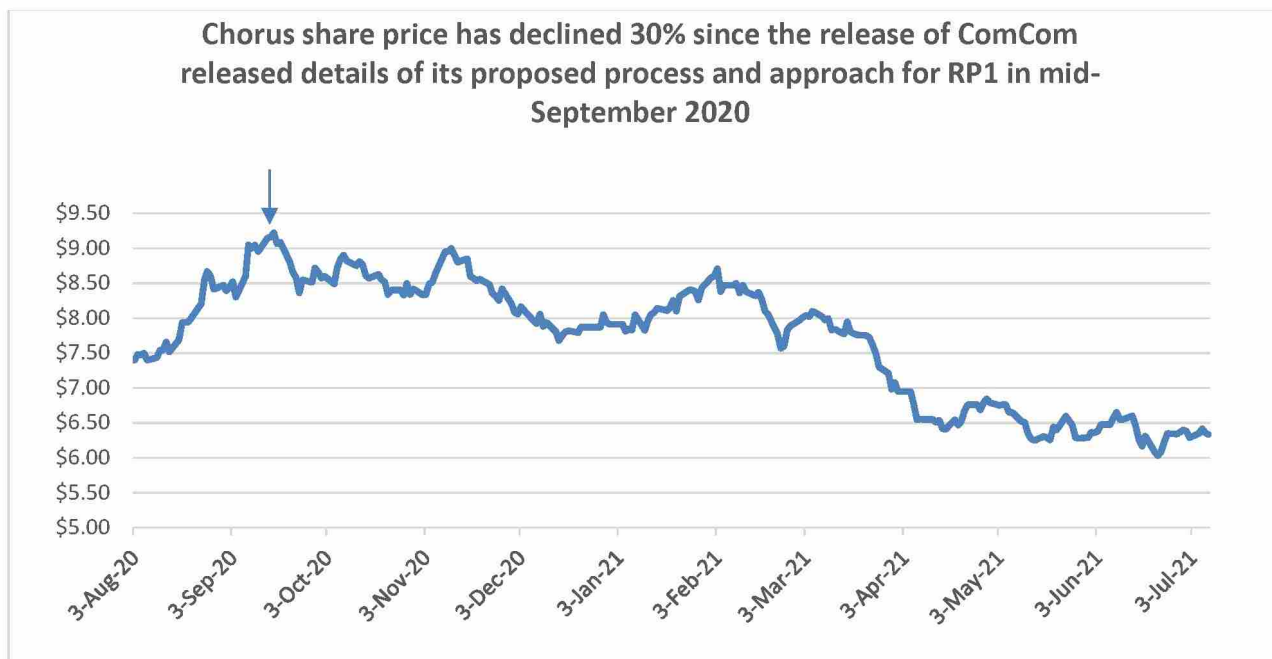
First, the proposed treatment of Chorus retail incentives is more likely to stifle the vibrant retail market that is emerging, tilting outcomes back in favour of vertically integrated mobile network operators. Second, the draft MAR and current WACC outcomes discourage investment. Over-earning the MAR effectively penalises Chorus for making investment, especially when the WACC doesn't reflect its actual cost of capital.



The irony is that while section 162 refers to regulated fibre service providers being “limited in their ability to extract excessive profits”, the cumulative effect of the Commission’s RAB implementation to date has made it increasingly doubtful that investors can even earn a fair return.

The gap between the outcomes in ComCom’s approach and initial share market expectations is reflected in the 30% decline in the Chorus share price since ComCom released its initial paper outlining its ‘Proposed process and approach for the first regulatory period’ on 15 September 2020. This decline is even greater when considered in the context of strong equity markets over the same period, with the ASX up 25% and the NZ50 up 5%.

We believe this represents the cumulative impact of decisions taken so far by ComCom during this process as well as an expectation that the Commission will continue to rule to the downside, which further undermines confidence in the new framework. Some international investors will have simply exited and are unlikely to return.



8 key areas of concern

In the context of the prior discussion, we flag the following specific areas of concern. These topics are explored in further detail throughout this submission.

- 1. Risks faced by Chorus in the early stages of the rollout have not been appropriately recognised by the Commerce Commission leading to an underestimation of the loss asset and RAB:** Chorus committed to its UFB investment a decade ago, facing a materially higher cost of capital than it does today, significant uncertainty over rollout costs and end user demand, and faced financial penalties if delivery milestones were not met. By not recognising the environment at the time the initial investment was made, the Commerce Commission has materially under-estimated the loss asset, and hence the RAB.
- 2. The capped MAR removes Chorus's incentives to innovate and invest:** The revenue cap means there is a disincentive to invest further in fibre take up or penetration – our recommendation in the absence of a better regulatory outcome would be to minimise future investment while it earns an incremental return well below Chorus's cost of capital.
- 3. The Commission's draft determination is significantly below the 8% to 9% WACC originally envisaged by CFH when the project was announced:** While we understand that there has been a structural shift in some elements of the project's cost of capital over this time, the Commission's approach completely ignores the cost of capital faced by investors at the outset of the project and represents a convenient change in return expectations only after private capital has vended in assets and taken on the majority of the implementation risk;
- 4. A WACC of 4.52% (post-tax) sets a rate of return that is one of the lowest returns for a regulated fibre network anywhere in the world.** This outcome suggests that investors are better off investing in other global fibre networks where risks are appropriately recognised. Although differences in risk free rates do impact the calculation of WACC, if we delve into the drivers of the WACC calculations we can see that the ComCom has under-estimated risk parameters relative to other regulators – specifically the asset beta and the WACC uplift;
- 5. Stranding risk has not been sufficiently allowed for in WACC determination, meaning investors can seek similar returns via investment in less risky regulated assets.** We note recent commentary by Spark NZ, Vodafone NZ and Ericsson on the accelerating adoption and future growth prospects for fixed wireless broadband solutions, which represents a significant risk to network adoption. We do not see the 10bps WACC allocation as sufficient compensation for the associated risks, given lost revenues are at a high incremental margin due to the fixed cost nature of the business.
- 6. Depreciation tilting is being used to fill the revenue gap, but this does not bring any economic value to Chorus and is not in itself sufficient.** Implementation of depreciation tilting does not provide compensation for stranding risk, which should be addressed through the correction of the WACC estimates via the stranding allowance, or through recognition of the costs associated with Chorus' participation in the UFB contract.



7. **There is an efficiency regime being applied to costs where no efficiency adjustment is necessary.** The Commission's suggested 10.7% cut in opex allowance implies the business is being run inefficiently today and that Chorus has not been upfront with its owners with regard to cost initiatives.
8. **Private capital and public capital continue to be treated differently:** Fairness between public and private capital is at heart of sovereign risk and investing in NZ. The current fibre legislation makes a distinction between private capital (regulated through a PQ regime) and public capital (regulated solely through an ID regime). While both have invested in an equivalent fibre network, the legislation allows for wide latitude to determine key parameters under PQ regulation and imposes an impossibly high efficiency standard for private capital.

1. Risks faced by Chorus during the rollout were not appropriately recognised by the Commerce Commission with an underestimation of the loss asset and RAB.

Chorus faced elevated risks during the construction phase of the network related to the risk of cost over-runs, uncertainty over the underlying demand for fibre services, specific risks related to the non-achievement of build milestones, balance sheet risks and funding/interest rate risks. These are summarised in the following table.

Risk	UFB build period (2012-2022)	Regulatory period beginning 2023	L1 Comment
Construction risk -Risk of cost overruns during build phase	High: Very large financial obligation related to build with all risk borne by equity holders	Low: Communal build largely complete and large section of premises connection complete by 2023	Construction risk is higher than set of comparable companies given extreme capital intensity of rolling out UFB network and should be reflected in a higher asset beta.
Risk of insufficient demand for fibre services	Very high: Unclear demand for fibre services at inception of projection. Penalties from CFH for insufficient take-up of fibre services in form of accelerating CFH equity repayments	High: Fibre take up to 2019 is running in line with projections	Clearly higher than during first regulatory period: Demand risk has been viewed as a systematic risk by other regulators and reflected through uplift in allowable WACC.
Risk of financial penalties for non-completion of build milestones	High: Financial penalties for non-completion and step in rights(see previous section on CFH instruments)	Low: Communal build should be largely complete by 2023	Clearly higher than risk in first regulatory period
Balance Sheet Risks:	High: Cost of not maintaining investment grade rating during build period is very high for equity holders (see section on CFH instruments)	Medium: End of build period should allow stronger cashflow generation, supporting credit metrics	As covered in section above this greatly increased risk to equity holders by increasing effective leverage and equity beta
Interest rate risk	High: High amount of financial leverage, higher interest rates and negative cash flow profile make Chorus sensitive to rates	Medium: Ability to match interest rate to regulatory period and cashflow generation mitigates risks	Clearly higher than during regulatory period



2. The capped MAR removes Chorus's incentives to innovate and invest

The consequence of the Commission's under estimation of the loss asset and WACC settings through the IM process last year (e.g. 50th percentile, low asset beta not reflective of FTTP networks and, constrained 10bps uplift for stranding risk) has greatly to depress the MAR.

Chorus and its investors are now faced with the absurd scenario where a RAB of \$5.5 billion doesn't generate enough revenue to meet the company's projected business plan. This is despite Chorus still expecting fibre uptake to grow through the first regulatory period.

L1 does not believe that there are incentives today for Chorus to invest in the fibre network and private investors are being taken advantage of through a punitive regulatory regime.

The revenue cap means there is no incentive to invest further in fibre take up or penetration – our recommendation in the absence of a better regulatory regime would be to minimise future investment while it earns a returns well below cost of capital.



3. The Commission's draft determination is significantly below the 8% to 9% WACC originally envisaged by CFH when the project was announced

Chorus made commitments to invest in 2011 on a long-term basis under the conditions and commitments of the time. Equity investors like L1 have been invested in the fibre rollout for majority of that period with the expectations that once the fibre network is complete those are the returns to be expected. Chorus investors have taken significant risk in bringing this PPP project on time and on budget and vended in significant pit and duct assets at below market value only to see return expectation changed once private capital has taken on majority of the risk and the network has been largely completed.



4. A WACC of 4.52% sets a rate of the return that is one of the lowest returns for a regulated fibre network anywhere in the world. Investors are better off investing in other global fibre networks where risks are appropriately recognised

Despite the higher risk Chorus has taken on throughout the build process, Chorus' allowed return in the draft determination process sits lower than allowed returns on other international regulated fibre assets.

Although differences in risk free rates do impact the calculation of WACC, if we delve into the drivers of the WACC calculations we can see that the ComCom has underestimated risk parameters relative to other regulators – specifically the asset beta and the WACC uplift.

Other regulators have emphasised the importance of incentivising investment and aligning approaches between different regulatory regimes. Ofcom has recently noted that:

“the 2018 UKRN report identifies that the primary reason for the RAR (the regulatory allowed return) differing from the WACC is a concern about ‘disincentivising investment, along with an asymmetric loss function which makes underinvestment costlier than over-pricing’”.¹ “We aim to ensure that there is consistency in our decisions, both between parameters in a given decision and, as far as reasonably possible, with other regulatory decisions”²

¹ Ofcom (2020), *Promoting investment and competition in fibre network: Wholesale Fixed Telecoms Market Review 2021-2025 Annexes* 1-23 of 24, A21.3

² Ofcom (2020), *Promoting investment and competition in fibre network: Wholesale Fixed Telecoms Market Review 2021-2025 Annexes* 1-23 of 24, A21.11

In the table below we can see that NZ fibre WACC is at the low end of the international comparators.

Jurisdiction	Tax	WACC	Asset Beta	FtH WACC uplift	Equity Beta	Gearing	Debt rate	RFR
NZ fibre	Post Tax	4.52%	0.5	0%	0.70	29%	2.54%	0.54%
NZ fibre	Pre Tax	4.72%						
NZ copper ³	Post Tax	5.56%	0.43	N/A	0.69	38%	4.92%	2.74%
NZ copper	Pre tax	6.56%		N/A				
UK Openreach ⁴	Pre tax nominal	7.10%	0.57		0.88	40%	3.4%	1.5%
Italy copper ⁵	Pre tax	8.64%	0.53	N/A	0.93	43.3%	4.63%	2.19%
Italy fibre ⁶	Pre tax	11.84%		3.2%				
Netherlands copper ⁷	Post tax	4.54%%	0.45	N/A	0.69	42%	5.30%	1.49%
Netherlands fibre ⁸	Post tax	10.04%		5.5%				
Slovenia copper with size ⁹	Pre tax	9.02%	0.52	N/A	0.76	31.05%	3.13%	1.84%
Slovenia fibre with size premium ¹⁰	Pre tax nominal	11.52%		2.5%				
Slovenia fibre without size premium ¹¹	Pre tax nominal	8.40%		2.5%				

³ Commerce Commission of New Zealand (2015), *Cost of capital for the UCLL and UBA pricing reviews*

⁴ Ofcom (2020), *Promoting investment and competition in fibre network: Wholesale Fixed Telecoms Market Review 2021-2025 Annexes 1-23 of 24*

⁵ Agcom (2019), *Il calcolo del cost medio ponderation del capitale (WACC) Aggiornamento dell'Allegato D alla delibera n. 623/15/CONS, Tabella 2*

⁶ European Commission (2019), *Commission Decision concerning case IT/2019/2181-2182: Wholesale local access provided at a fixed location and wholesale central access provided at a fixed location for mass-market products in Italy*

⁷ Brattle (2015), *The WACC for KPN and FtH*, July 2015.

⁸ European Commission (2016), *Commission Decision concerning Case NL/2016/1947: Wholesale local access provided at a fixed location in the Netherlands - remedies*

⁹ European Commission (2018), *Commission Recommendation of 8.6.2018 in accordance with Article 7a of Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services ("Framework Directive") in Case Si/2018/2050: Wholesale high-quality access provided at a fixed location in Slovenia – Market Review*

¹⁰ Ibid 15

¹¹ Ibid 15

5. Stranding risk has not been sufficiently allowed for in WACC determination. As a result, investors can seek similar returns via investment in less risky regulated assets.

The draft determination imposes additional conditions on operators under the PQ regime which greatly increases competition risks for fibre networks and is not compensated through the stranding allowance. This will result in a failure to achieve a normal return on capital by a fibre operator over time, adjusted for risk

New Zealand's fibre legislation goes beyond a simple Part 4 RAB approach and instead introduces additional conditions for telecom operators which affect the returns for investors and the impact the probability of normal returns on an ex ante basis. We have listed these below.

Additional condition on Fibre Operator	Impact on regulated entity
Anchor prices:	Locks in a price for basic consumer fibre products and increases risk of under-recovery versus revenue cap if higher value products can't be sold
Geographic averaging of prices	Results in providers over-pricing in dense urban areas to offset subsidy in rural areas to achieve regulated returns - thus increasing risk of competition and overbuild in urban areas where economics for fixed wireless substitution are most favourable
Smoothing of any price increases over multiple periods	Lengthens payback period and increases risk of under earning over multiple periods in the event the regulated entity is earning under revenue cap (likely for Chorus in first period). Extending the payback period also increases stranding risks
Assets can be taken out of RAB due to competition	Possibility for assets to be deregulated and taken out of RAB before efficient costs are recovered in the event 5G competition emerges.
Move to cost based pricing for anchor products	A move to cost-based pricing would lower the price of anchor products further and push out recovery of costs. This lowers returns and risk that assets are stranded before efficient costs are recovered
Focus on promoting substitute products through price caps and subsidies	Regulatory focus on fostering competition which includes subsidising inputs into competing telecom products (DFAS, ICABS etc) increases stranding risks from 5G services. This is a particular risk in future given the Commission has given itself wide remit to increase subsidies for key 5G inputs for pro competition purposes.
Requirement for disclosure and review of capex to ascertain competition effects	Increases stranding risk through forced investment in substitutes. Information disclosure requests reveals exact areas that Chorus intends to target for investment giving competitors information advantages and opportunity to make investment before Chorus has the opportunity to do so



The impact of many of these conditions is to significantly increase stranding risk for fibre investment by:

(a) Increasing the risk of overbuilding and competition in the densest, most profitable part of the network:	<ul style="list-style-type: none"> - Geographic averaging of prices - Caps on DFAS and backhaul prices with an option to move to cost-based pricing, - Review and approval of capex to promote competition in network.
(b) Removing the potential to recover investment once an area in network is subject to competition:	<ul style="list-style-type: none"> - Removal of competitive areas out of RAB
(b) Delaying the time to recover investment, with under recovery in early periods, significantly increasing the amount time investors are exposed to stranding risk	<ul style="list-style-type: none"> - Smoothing of any price increases over multiple periods - Anchor pricing - Move to cost-based pricing of anchor products

We do not see the 10bps WACC allocation as sufficient compensation for the associated risks, given lost revenues are at a high incremental margin due to the fixed cost nature of the business.

Furthermore, we note that the small WACC adjustment allocated for stranding risks is not consistent with the rapid growth in fixed wireless as highlighted by the following developments since ComCom completed its assessment of stranding risk in November last year. Recent updates from Spark and Vodafone also confirm the strategic intent to rapidly grow fixed wireless connections as a substitute to UFB. Ericsson in its 2021 Mobility Report, highlights the prospects of continued adoption of fixed wireless access products in future years.

Quote	Source
<p><i>"Fixed wireless connections have grown from 27k at June 2016 to 221k at June 2020, representing a CAGR of 69% (source: ComCom Annual Telecommunications Monitoring Report – 2020 Key Facts, March 2021)."</i></p> <p><i>"Fixed wireless connections have increased to 221,000 up 16% from last year. As at 30 June 2020, New Zealand ranked third highest out of the OECD countries for fixed wireless broadband connections with 4.5 subscriptions per 100 of population, behind the Czech Republic at 14.9 and the Slovak Republic at 7.9".</i></p>	ComCom in its Annual Telecommunications Monitoring report:
<i>"There remains a significant addressable market, which continues to grow as we roll out 5G, and precision marketing is helping us to identify customers who are best suited to wireless broadband and provide them compelling, tailored offers."</i>	Spark Investor Presentation
<i>"We have 5G available in five locations across New Zealand, and we are now live testing in Christchurch, with mobile and wireless broadband offers launching to customers next month."</i>	Vodafone Investor Presentation

<p><i>"In April 2021, Ericsson, for the fifth time, updated its study of retail packages offered by service providers worldwide. Out of the 311 service providers studied, 224 had an FWA offering, which represents an average of 72 percent globally. Service providers' adoption of FWA offerings has increased by 12 percentage points during the last six months, and more than doubled since the first measurements in December 2018"</i></p> <p><i>"FWA is an increasingly cost-efficient alternative compared to fixed services such as DSL, cable and fiber. Increasing capacity, allowed by greater spectrum allocations and technological advancements, is driving higher network efficiency in terms of the cost per delivered gigabyte. In addition, innovations within 5G mmWave have extended the range of mmWave spectrum from a few hundred meters to over 7km coverage radius. This offers new opportunities to use the current network infrastructure grid, making 5G a future-proof technology for large scale FWA deployment"s.</i></p> <p><i>"However, we estimated that there were more than 60 million FWA connections by the end of 2020. This number is forecast to grow more than threefold through 2026, reaching over 180 million".</i></p>	<p>Ericsson Local Mobility Report</p>
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We do not agree with the Commission's assertion that Chorus' position viz-a-viz fixed wireless is protected by the ability to sell backhaul services. The mobile networks use a number of backhaul networks, including their own, to connect their towers. Their drive for vertical integration suggests they will continue to try and circumvent local fibre company networks wherever possible. Where a tower is connected by Chorus the backhaul revenue seems unlikely to cover the connection revenue that would otherwise be lost.



6. Depreciation tilting is being used to fill the revenue gap, but this does not bring any economic value to Chorus and is not in itself sufficient

Given the expected under-recovery of revenues, Chorus has had to propose tilted depreciation – to the tune of ~\$200m based on the draft decision – to try and fill the looming revenue gap. We fundamentally disagree with tilting being needed to shore up the failed implementation of the new regulatory regime and highlight that depreciation tilting is NPV neutral and does not bring any economic value to Chorus shareholders. This is something the Commission should be addressing through correction of the WACC and stranding risk, or its recognition of the costs associated with Chorus' participation in the UFB contract. We strongly believe, for example, that the Commission should revisit the asset stranding allowance as part of its IM review process given recent developments in the promotion of fixed wireless.



7. There is an efficiency regime being applied to costs where no efficiency adjustment is necessary

We will leave Chorus to respond to the detail of the Commission's proposed reductions in Chorus' expenditure. However, we make the following observations that we think the Commission should reflect on:

The Commission's suggested 10.7% cut in opex allowance implies the business is being run inefficiently today and that Chorus has not been upfront with its owners. We do not see how this can be the case. Chorus' shareholders expect the company to have a firm focus on reducing costs. We consider that Chorus has been doing exactly that ever since it had to manage for cash through the financial strain of the copper pricing debacle. Its statements to the market are that expects to continue gradually reducing costs.

The Commission's approach to defining efficient costs ignores the circumstance under which Chorus was incorporated – which was to deliver a rollout under a contractual agreement with Crown Fibre Holdings. Under this contract there were penalties applicable to Chorus if certain targets were not achieved – and investment decisions impacting costs were made on the basis of achieving an efficient rollout in the context of those requirements. In our view, ignoring the circumstance under which Chorus agreed to participate in the UFB therefore equates to applying a new efficiency standard on Chorus.

8. Private capital and public capital continue to be treated differently

The current fibre legislation makes a distinction between private capital (regulated through a PQ regime) and public capital (regulated solely through an ID regime). While both invested in an equivalent fibre network, the legislation allows for wide latitude to determine key parameters funder PQ regulation and imposes an impossibly high efficiency standard for private capital.

Under the PQ legislation there are various areas where there is a high risk of normal returns not being earned. These include very high efficiency standards, potential stranding risk, loss assets not allowing for stranding risk and no WACC uplift despite material estimation error. However, under the ID regime, operators have very wide discretion to self-identify what their stranding risk is and what the appropriate WACC is.

Risk	Public capital approach (ID only)	Private capital approach (PQ)
Stranding risk	<ul style="list-style-type: none"> Regulated providers could publish their estimates of non-systematic asset stranding risk and how they are providing any contingency to account for this within their cash flows. The regulator will be cognisant of the presence of asset stranding risk when interpreting the results of any ex-post analysis of profitability. 	<ul style="list-style-type: none"> 10bps allowance materially understates current stranding already occurring No allowance for stranding risk during build period despite risk of loss asset being stranded and removed from RAB
WACC uplift	<ul style="list-style-type: none"> Regulated providers subject only to ID regulation can choose to disclose any additional evidence at any time including any 'uplift' they consider should be applied in the event of PQ being imposed through future regulations under s 226 and any evidence they have to support this. 	<ul style="list-style-type: none"> No uplift allowed despite international regulators applying uplift for risk of fibre networks No recognition that WACC is higher during build period. No recognition of specific CFH restrictions that applied exclusively to Chorus

Fairness between public and private capital is at heart of sovereign risk and investing in NZ. It is deeply inequitable for the Commission to impose a hypothetical efficiency standard on Chorus capex and operating expenditure without any proof those costs are inefficient while allowing wide latitude for other providers to determine what efficient costs are.



Conclusion

We thank the Commission for the opportunity to make a submission at this critical stage.

We remain passionate about the issues at hand given the impact for both Chorus and the New Zealand public, and remain concerned over the cumulative impact of outcomes reached thus far.

Given the findings of the most recent determinations, it is important to flag that every incrementally negative outcome going forward is likely to have an outsized impact on Chorus's ability to invest and innovate.

And from that it follows that these decisions will also have an outsized impact on the other thematic raised in this submission – that (a) without a change in regulatory settings the benefits to NZ businesses and consumers of having world leading fibre network that continues to have resources to invest and innovate will be lost and (b) future investment into NZ infrastructure more broadly will be imperilled.

Signed:



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