Amendments to the Input Methodologies for Fibre

November 2021 amendments

C H O R U S

Executive summary

Amendments to implement draft PQ and ID determinations

Caution is needed regarding amendments to the input methodologies (IMs) for the purpose of implementing draft price-quality (PQ) and information disclosure (ID) decisions. Certainty is undermined if the Commission changes the rules in a significant way at a late stage to accommodate its desired approach to setting PQ paths or ID requirements. However, we have considered the Commission's proposed amendments and we think they are reasonable and do not violate this principle. Also, in light of the Commission's draft PQ and ID determinations, we think three further amendments are required.

Changes to the definition of "notional deductible interest"

- The Commission has proposed an amendment to the definition of "notional deductible interest" to reflect the fact the other local fibre companies (**LFCs**) will initially make disclosures for part years. This definition needs further amendment to address an inconsistency in the leverage assumptions and make the provision consistent with the requirements of the Telecommunications Act 2001 (**Act**).
- The way "notional deductible interest" is currently calculated with respect to regulatory tax allowance doesn't account for Chorus' actual mix of debt and equity Crown financing. This understates our regulatory tax allowance and is inconsistent with the Act which requires that the maximum revenues reflect, in respect of any Crown financing, the actual financing costs incurred by the provider.

Reopener for individual capex allowances

- The Commission's draft PQ determination proposes a significantly expanded role for individual capex proposals than we contemplated during engagement on IMs development. We strongly believe it is not appropriate to require individual capex proposals for expenditure on customer incentives and this is articulated fully in our submission on the draft PQ determination. Even if our position on incentives is accepted, the greater role contemplated in the draft PQ determination warrants reconsideration of the PQ path where individual capex proposals are accepted.
- The current proposal for individual capex allowances to be included in wash-up accruals means recovery will be deferred into the subsequent regulatory period, potentially well after the assets are in use to provide fibre fixed line access services (FFLAS). There is no clear justification for delaying the recovery of individual capex allowances once the relevant assets are in use. Also, if individual capex allowances are significant, deferral of recovery may have cashflow implications that affect Chorus' ability to efficiently finance its operations year to year. This may become more acute if regulatory periods are extended.

Annual benefit of Crown financing building block

• The Commission has proposed amendments to the Cost of capital IM which are necessary because of the different disclosure year timing for LFCs. We have identified a further issue with the timing of calculations in this IM in relation to Crown financing.

• The IMs as currently drafted will result in an inaccurate Crown financing adjustment being calculated for LFCs in respect of the 2022 disclosure year, and an overstatement of Chorus' avoided costs of Crown financing in the PQ determination. We propose a correction to prevent this and ensure the PQ determination reflects the actual financing costs incurred by Chorus as required by the Act.

Amendments to enhance certainty

Providing certainty is the key function of the IMs and we welcome the Commission's
decision to consider amendments where these will clarify the rules and allow us to
better understand how PQ regulation will apply to us. We have identified three
important amendments to support this purpose.

Depreciation in year of commissioning

- Under the IMs as currently drafted, in the post-implementation period, assets can only commence depreciation in the year after they have been commissioned. Deferring recovery of costs relative to when the asset is commissioned results in an unnecessary divergence between the GAAP treatment of depreciation in Chorus' audited accounts and depreciation in regulatory accounts, increases the risk of error, and is inconsistent with the approach in the pre-implementation period.
- The Commission accepted for Transpower that deferring depreciation created unnecessary operational complexity and aligning regulatory depreciation with GAAP would help to maintain consistency and transparency for stakeholders as well as minimise compliance costs. The Commission amended the Transpower IM to provide for part-year depreciation in the year of commissioning. Chorus requests the same.

Clarifying definition of connection capex

- The current definition of connection capex does not extend to upgrades to existing
 connections to support new or enhanced FFLAS services. However, capex to
 upgrade existing connections is highly demand driven and subject to the same
 forecast uncertainties as new connections. For consistency the definition of
 connection capex should extend to upgrades to existing connections to support new
 or enhanced services.
- This issue is most acute in relation to Chorus' next generation Hyperfibre service.
 Upgrading a GPON service to Hyperfibre requires premises-specific capex relating to
 replacement of the Chorus electronics in the consumer's premises. Capex
 allowances should account for upgrades to existing connections to allow the
 demand-driven component of Chorus' capex to be adjusted for actual uptake of
 enhanced services like Hyperfibre.

Addressing stranding risk

• The evidence base for asset stranding has continued to evolve since the Commission determined the IMs. It suggests the 10 basis points allowance is, or will soon be, outdated. It is evident that the risk of asset stranding is highly dependent on constantly evolving market circumstances. An approach that fixes the ex-ante stranding allowance across multiple regulatory periods fails to recognise the dynamic nature of stranding risk.

Accordingly, we propose the Commission determine the stranding allowance as part
of each PQ determination. This would allow the Commission to revise its assessment
of stranding risk as part of each PQ determination to assure itself that the
combination of regulatory tools is properly achieving the purpose of Part 6. It would
also provide additional certainty to regulated providers that the risk of stranding will
be appropriately accounted for. This would support ongoing investment.

Amendments to implement draft PQ and ID determination

- 1. The Commission is proposing amendments to the IMs because it considers these to be necessary to implement draft decisions it has made regarding the PQ path and ID requirements. Amendments for this purpose should be approached with caution. As we noted in our response to the Commission's first tranche of proposed IMs amendments, one way the IMs promote certainty is by requiring the Commission to demonstrate a degree of ex-ante commitment to the rule book that governs the setting of price-quality paths and information disclosure requirements.¹ In that sense certainty is undermined if the Commission changes the rules in a significant way at a late stage to accommodate its desired approach to setting PQ paths or ID requirements. The IMs provide no constraint and serve no purpose at all if they are routinely amended to permit the determination the Commission wishes to make.
- 2. Notwithstanding that, we have previously acknowledged that the PQ and ID processes may require the IMs to be amended to implement decisions and that it is important to adopt a flexible and pragmatic approach to addressing errors or gaps in the IMs that only become apparent as the detail of PQ and ID processes is worked through.² We have considered the changes proposed by the Commission for the purpose of implementing the draft PQ and ID determinations and we agree they do not undermine the purpose of the IMs.
- 3. Accordingly, we have considered the Commission's proposals in light of its draft PQ and ID determinations. In our view:
 - 3.1 Further changes to the definition of "notional deductible interest" are required to address an inconsistency in the leverage assumptions and make the provision consistent with s 171 of the Act;
 - 3.2 Given the significantly expanded role of individual capex proposals the Commission is proposing in its draft PQ determination, a reopener event needs to be added; and
 - 3.3 Changes to the calculation of annual benefit of Crown financing are required to account for the different disclosure year dates of LFCs and ensure the PQ determination reflects the actual financing costs incurred by Chorus as required by s 171 of Act.
- 4. We have provided further comments on the Commission's proposed amendments in Appendix A. Our proposed drafting for implementing the changes described below is set out in Appendix B.

Definition of "notional deductible interest"

5. The Commission is proposing to amend the definition of "notional deductible interest" in clause 2.3.1(7) of the Taxation IM to address the fact that Ultrafast, Enable and Northpower will be initially disclosing results in the 2022 disclosure year for reporting

¹ Chorus, Amendments to the Input Methodologies for Fibre - August 2021 amendments, 24 June 2021, para 6

² Chorus, Submission on Fibre Regulation-Process and Approach, 14 October 2020, paras 27-28



- periods of three months and six months, as opposed to 12 months, which is what clause 2.3.1(7) currently assumes.
- 6. We have no objection to the Commission's proposed amendment, but ask that the Commission also take this opportunity to address an inconsistency in the leverage assumptions used to calculate notional deductible interest in clause 2.3.1(7).
- 7. This submission is related to the issue we raised in our response to the first tranche of the Commission's proposed IM amendments regarding calculation of the present value benefit of Crown financing.³ There we submitted that the Commission had failed to apply the post-tax cost of debt to the portion of CIP equity securities that the Commission considers to have the characteristics of debt. This resulted in an inconsistency in the Commission's own reasoning and meant that the Commission was not properly applying s 171 of the Act as it was not calculating the actual benefit of Crown financing.
- 8. That was one of two issues we raised with the Commission at the time the IMs were determined. The other was that the Commission had not properly followed through the tax implications of its decisions on Crown financing in the post-implementation period. This is because the calculation of notional deductible interest in clause 2.3.1(7) assumes that the mix of debt and equity portions of Crown financing is equal to the notional leverage that is derived from the Commission's sample of comparator firms, rather than the Commission's determination of the relative proportions of Crown financing that are debt and equity. Again, this is an unjustifiable inconsistency in the Commission's reasoning and means that the Commission is not properly applying s 171 of the Act.
- 9. Section 171 of the Act directs the Commission to ensure that allowable revenues in price-quality determinations reflect the "actual financing costs" incurred by Chorus in respect of any Crown financing. The Commission, in the course of determining the benefit of Crown financing, concluded that the 50% equity portion of CIP securities should be weighted 75% to the benchmark cost of equity and 25% to the benchmark cost of debt. In the Commission's view, treating a portion of the CIP equity securities as debt best reflected the nature of the CIP equity securities.
- 10. Having made that determination, the Commission must then apply that characterisation consistently through the IMs wherever it is required to take into account the actual financing costs associated with CIP securities. To the extent it fails to do so, it has not properly applied s 171.
- 11. Clause 2.4.10 of the IMs calculates the annual benefit of Crown financing using cost of debt values expressed in vanilla terms based on the actual mix of debt and equity portions of Crown financing. However, clause 2.3.1(7) assumes that the mix of debt and equity portions of Crown finance is equal to the notional leverage that is derived from the Commission's sample of comparator firms operating in the telecommunications sector in other jurisdictions. In other words, the Commission has not consistently applied its determination of the nature of CIP equity securities for the purpose of calculating notional deductible interest.

³ Chorus, Amendments to the Input Methodologies for Fibre - August 2021 amendments, 24 June 2021, paras 46-55

Re-opener for individual capex allowances

- 12. The Commission's draft PQ determination proposes a significantly expanded role for individual capex proposals than we contemplated during engagement on IMs development. In particular the Commission is proposing to require individual capex proposals for all incentive and innovation expenditure.⁴
- 13. We strongly believe that it is not appropriate to require individual capex proposals for expenditure on customer incentives and this is articulated fully in our submission on the draft PQ determination. Even assuming this is understood and accepted by the Commission, the requirement that innovation expenditure be supported by an individual capex proposal means these are likely to have a significant role when PQ regulation is implemented. Therefore, to support implementation of the Commission's draft PQ determination, we believe a re-opener is needed for individual capex allowances.
- 14. The Commission's proposed amended price specification IMs include a mechanism for calculating wash-up accruals to address individual capex allowances determined in the regulatory period: clause 3.1.1(8)(c).
- 15. The Commission's proposed wash-up mechanism would require:
 - 15.1 The Commission to determine annually Chorus' actual allowable revenue, including the wash-ups in subclause (8); and
 - 15.2 Chorus to record annual wash-up accruals reflecting the difference between Chorus' total FFLAS revenue and the actual revenue allowance determined by the Commission.
- 16. Under the Commission's proposals, the wash-up account balance is only drawn down at the end of each regulatory period and applied in the form of wash-up amounts determined for each regulatory year of the subsequent regulatory period. The consequence is that a wash-up accrual recorded in the first year of a regulatory period will not be reflected in prices until at the earliest three to five years later in the first year of the next regulatory period. In the meantime, the time value of money adjustments are applied annually to wash-up accruals to address the deferral of their recovery.
- 17. In general, Chorus accepts the Commission's proposal to draw down the wash-up account only at the end of each regulatory period. However, in relation to individual capex allowances, a re-opener mechanism would be more appropriate. Based on the Commission's draft PQ determination, individual capex allowances will potentially address substantial amounts of capex relating to assets that Chorus will commission during the regulatory period. Using the wash-up mechanism to recover individual capex allowances in prices means recovery of those costs will be deferred into the subsequent regulatory period, potentially well after the assets are in use to provide FFLAS.
- 18. This delay in recovering individual capex allowances is problematic because:
 - 18.1 There is no clear justification for delaying the recovery of individual capex allowances once the relevant assets are in use. In contrast, Transpower's Capex

⁴ Commission, Chorus' price-quality path from 1 January 2022 –Draft decision, 27 May 2021, see para 4.47–4.53

⁵ Depending on the length of the regulatory period which may change under s 207(2) of the Act

- IM allows for annual re-openers of the price path to address the revenue impacts of major capex projects; and
- 18.2 If individual capex allowances are significant, deferral of recovery may have cashflow implications that affect Chorus' ability to efficiently finance its operations year to year. This may become more acute if regulatory periods are extended as permitted under s 207 of the Act.
- 19. To implement the draft PQ determination proposed by the Commission we therefore propose inclusion of an additional re-opener to address the revenue impacts of individual capex allowances.

Annual benefit of Crown financing building block

- 20. The Commission has proposed amendments to the Cost of capital IM to change the timing of the weighted average cost of capital (WACC) determinations for LFCs. This is necessary because of the differing disclosure year end dates for LFCs. We have identified a further issue with the timing of calculations in the Cost of capital IM which needs to be corrected both to account for the different timing of disclosure years for the LFCs, and to ensure the adjustment for Crown financing in the PQ determination reflects the actual financing costs incurred by Chorus as required by the Act.
- 21. As currently drafted, clause 2.4.11 of the IMs produces an adjustment for Crown financing that is likely to be inaccurate for the LFCs in respect of the 2022 disclosure year given the Commission's draft decision to adopt disclosure year durations of less than 12 months. Additionally, that clause, and clauses 2.4.10 and 3.5.11, currently produce an incorrect annual building block result relative to the forecast profile of repayments.
- 22. First, in respect of clause 2.4.11, a proportionate adjustment to the cost of debt and cost of equity is necessary to calculate the correct adjustment for Ultrafast (31 March balance date) and Enable and Northpower (30 June balance dates). This is a transitional matter for these entities who will be initially disclosing results in the 2022 disclosure year for reporting periods of three months and six months respectively.
- 23. Second, clause 2.4.11, as well as clauses 2.4.10 and 3.5.11, are likely to materially overstate the Crown financing benefit building block with respect to repayments of Crown financing occurring during a disclosure or regulatory year. Specifically:
 - 23.1 The annual benefit of Crown financing building block currently multiplies the forecast balance of the Crown financing outstanding on the first day of each year by a rate calculated to reflect the avoided costs of the Crown financing. This calculation is effectively an "offset" to the WACC applied to the portion of the asset base financed by the Crown, and reduces maximum allowable revenues;
 - 23.2 Repayments of the debt and equity portions of Crown financing for Chorus are scheduled to occur at intervals on 30 June in 2025, 2030, 2033 and 2036, reducing the outstanding balance on those dates. The LFCs may also have repayment dates that do not fall on the first day of their disclosure years.

⁶ It is possible that debt or equity could be retired on other dates that do not coincide with the first day of the regulatory or disclosure year. We note that further drawdowns of Crown financing from 1 January 2022 onwards should be minimal as the UFB deployment has largely been completed

- 23.3 As the formulae in the existing IM clauses do not have regard to repayments that occur during the year they overstate the Crown financing building block. The annual benefit of Crown financing building block for Chorus over PQP1 is forecast to be approximately \$50m pa⁷ and Chorus is likely to suffer material detriment from the treatment of future repayments. The overstatement is also likely to affect LFCs.
- 24. Because the IMs as currently drafted will lead to an overstatement of the benefit of Crown financing, they will result in a PQ determination which does not reflect the actual financing costs incurred by Chorus in respect of Crown financing in the regulatory period. Therefore, unless this is amended in the IMs, the PQ determination would be inconsistent with s 171 of the Act, which requires the maximum revenues set by the Commission to reflect the actual costs of Crown financing.
- 25. Chorus has included suggested amendments to clauses 2.4.10 and 3.5.11 in Appendix $B.^8$

Commission, Chorus' price-quality path from 1 January 2022 – Draft decision, 27 May 2021, see para 3.8; Table 3.3.
 In its Proposed Amendments to Fibre Input Methodologies – draft decisions the Commission has proposed amendments to cl. 3.1.1 to include an annual wash-up for the difference between the forecast and actual values.

amendments to cl 3.1.1 to include an annual wash-up for the difference between the forecast and actual values. Chorus' views on this proposal are set out in our 24 June 2021 submission on the August 2021 IM amendments, see paras 21-38

Amendments to enhance certainty

- 26. The Commission has proposed amendments it believes would enhance certainty about the rules, requirements and processes that apply to PQ paths. Certainty is the key purpose of IMs as set out in s 174 and one of the ways IMs promote certainty is by clearly articulating the rules with sufficient specificity that regulated providers can understand how PQ paths will be set. Accordingly, we welcome the Commission's decision to consider amendments to the IMs where these will clarify the rules and allow us to better understand how PQ regulation will apply to us.
- 27. We think three amendments to the IMs are required to support this purpose:
 - 27.1 Allowing assets to be depreciated in the year of commissioning to align with GAAP, reduce complexity and support transparency;
 - 27.2 Clarifying the definition of connection capex to ensure it captures all types of FFLAS connection work including connection upgrades; and
 - 27.3 Removing the hard coding of the asset stranding allowance and require revision of stranding risk as part of each PQ determination to ensure that the combination of regulatory tools is properly achieving the purpose of Part 6.
- 28. Our response to the Commission's proposed change to determining maximum revenues is set out in Appendix A together with other potential amendments to enhance certainty. Our proposed drafting for implementing the changes described below is set out in Appendix B.

Depreciation in year of commissioning

- 29. In the pre-implementation period, assets are depreciated in the year they are commissioned in accordance with GAAP. In contrast, in the post-implementation period, the IMs provide that depreciation for assets can only commence in the year after they have been commissioned. This:
 - 29.1 Defers the recovery of those costs relative to when the asset is commissioned; and
 - 29.2 Results in an unnecessary divergence between the GAAP treatment of depreciation in Chorus' audited accounts and depreciation in its regulatory accounts.
- 30. We propose an amendment to the asset valuation IM to allow assets to be depreciated in the year they are commissioned, with depreciation applied for the relevant part-year from the commissioning date. This change would be NPV neutral.
- 31. We note that Transpower, in 2014, requested that the Commission amend the Transpower IMs to permit depreciation of assets in the year of commissioning. Transpower explained that the requirement in the IMs to depreciate assets only from the year following the year of commissioning required Transpower to assess forecast and actual depreciation for revenue setting purposes using a separate process from its general GAAP-based corporate accounting. Transpower argued that this created unnecessary operational complexity and aligning regulatory depreciation with GAAP

- would help to maintain consistency and transparency for stakeholders as well as minimise compliance costs.
- 32. The Commission agreed and amended the Transpower IM to provide for part-year depreciation in the year of commissioning. The Commission noted that the change would more closely align the calculation of regulatory depreciation with depreciation under GAAP, and is expected to reduce some of the costs and risk of error arising from Transpower reconciling its regulatory reports to its accounting asset books under GAAP.
- 33. For essentially the same reasons, Chorus requests that the Commission make an equivalent amendment to the Fibre IMs to permit part-year depreciation in the year of commissioning. Like Transpower, Chorus is concerned that the ongoing misalignment between the GAAP approach used in its corporate accounting and a separate rule for regulatory depreciation will introduce operational complexity, cost and be an unnecessary source of potential error. To comply with the existing IM rules, Chorus needs to design and establish new regulatory accounting systems with the results to be checked prior to every PQ reset, and for the preparation of every annual ID disclosure. Removing this complexity and source of potential error will enhance certainty.
- 34. In addition, aligning regulatory depreciation with GAAP will align the timing of the recovery of asset values with their use to provide FFLAS. There is no compelling reason (economic or otherwise) to defer the commencement of depreciation of FFLAS assets from the time they become available for use.
- 35. Finally, this amendment would ensure a consistent approach to timing of depreciation pre-and post-implementation date.

Clarifying definition of connection capex

- 36. The current definition of connection capex is limited to capex incurred in new connections to end-user premises. It does not extend to upgrades to existing connections to support new or enhanced FFLAS services. However, capex to upgrade existing connections is also highly demand driven and therefore subject to the same forecast uncertainties as new connections. For consistency, therefore, the definition of connection capex should extend to upgrades to existing connections to support new or enhanced services.
- 37. An example where this issue currently arises is in relation to Chorus' Hyperfibre service. Hyperfibre uses an XGS-PON solution to deliver dramatically increased capacity, exceptionally low latency and speeds of up to 10 Gbps. If a consumer has a GPON fibre service, an upgrade to Hyperfibre requires the replacement of the existing optical network terminal (ONT) at the consumer's premises. Therefore Chorus incurs premises-specific capex in order to deliver Hyperfibre.
- 38. Hyperfibre is a new service and represents a significant evolution in fibre broadband. It is extremely challenging to forecast the level of Hyperfibre uptake we will

⁹ The Transpower IMs were amended after the Transpower IPP regime had commenced so a pseudo-asset was created to account for the accumulated difference to that date. There would be no such requirement needed for Chorus as the fibre IMs would be changed prior to the fibre PQ regime commencing

- experience, and therefore the additional capex associated with provisioning new ONTs to support Hyperfibre.
- 39. Because the definition of connection capex is limited to new connections, in our expenditure proposal we apportioned Hyperfibre installation costs between base capex (for intact connections) and connection capex (for new connections). However, like new connections, installations of Hyperfibre is highly demand-driven and subject to the same degree of forecast uncertainty. It is therefore appropriate for capex allowances to account for upgrades to existing connections to allow the demand-driven component of Chorus' capex to be adjusted for actual uptake of enhanced services like Hyperfibre.

Addressing stranding risk

- 40. The IMs currently provide for a fixed ex-ante allowance of 10 basis points to address asset stranding risk (in conjunction with other tools). The evidence base for asset stranding has continued to evolve since the Commission determined the IMs, which suggests the 10 basis points allowance is, or will soon be, outdated. We propose an amendment to the IMs to require the Commission to update the stranding allowance as part of each PQ determination to ensure the allowance properly reflects the best evidence of stranding risk.
- 41. Clause 3.3.5 of the IMs specifies a 10 basis point ex-ante allowance to address the risk of asset stranding. The Commission considered that this allowance, in conjunction with other tools such as keeping assets in the RAB and accelerated depreciation, was sufficient to address the risk of asset stranding.
- 42. In its January 2020 report, NERA, for Chorus, estimated that an appropriate allowance would be in the vicinity of 31 to 87 basis points. This did not include the higher risk of stranding for the financial losses asset (**FLA**), or in the Wellington region. Accounting for these issues, NERA's May 2021 report estimated that an allowance between 57bp and 135bp was required to adequately compensate for stranding risk. 11
- 43. NERA's analysis, in part, reflected updated information on the extent of fixed-wireless access (**FWA**) uptake. In its final IMs determination, the Commission concluded that FWA uptake appeared to have slowed. This was based on data through to June 2020. NERA's analysis of FWA uptake through to December 2020 demonstrated that FWA growth is continuing with no evidence of slowing. This is consistent with commentary and market announcements from Spark and Vodafone.
- 44. We have proposed, and the Commission has provisionally accepted, accelerated depreciation of the FLA, in part to address stranding risk that is otherwise not compensated for in the ex-ante stranding allowance. However, the adequacy of that approach for the next regulatory period and subsequent periods assumes that the underlying risk of asset stranding does not change.
- 45. What this ultimately illustrates is that the risk of asset stranding is highly dependent on constantly evolving market circumstances. In light of that, an approach that fixes the ex-ante stranding allowance across multiple regulatory periods fails to recognise the dynamic nature of stranding risk.

¹⁰ NERA, Assessment of Type II asymmetric risk for Chorus' fibre network - report for Chorus, 22 January 2020

¹¹ NERA, Frontloading depreciation to account for asset stranding risk - report for Chorus, 12 May 2021

- 46. Accordingly, rather than fixing the stranding allowance in the IMs, we propose the Commission determine the stranding allowance as part of each PQ determination. This would allow the Commission to revise its assessment of stranding risk as part of each PQ determination to assure itself that the combination of regulatory tools is properly achieving the Part 6 purpose statement. It would also provide additional certainty to regulated providers that the risk of stranding will be appropriately accounted for. This would support ongoing investment.
- 47. In our view, the Commission is justified in revisiting this issue at this point because it has become apparent that the evidence base on which the Commission relied on to determine the 10 basis point allowance has continued to evolve. This is new information that warrants reconsideration.

¹² In our submission on the draft PQ determination we have proposed how we think the ex-ante stranding allowance and depreciation could be used in concert to best account for stranding risk



Appendix A - Other amendments to support PQ/ID and enhance certainty

This table sets out our view on some of the Commission's proposed changes and suggests other changes we think would support better PQ and ID determinations and/or enhance certainty.

Reference	Issue	Recommended Solution
1.1.4(2), 2.5.1(1)(a)(ii) and	The Commission proposes amendments to the definition for "downtime" and downtime clauses of the Quality Dimensions fibre IM.	We are comfortable with the Commission's proposed drafting for:
3.6.1(1)(a)(ii)	We agree with the Commission that if not specified appropriately, availability performance measures can lead to perverse incentives. We support the proposal to remove planned outages from the calculations of "average downtime" and replace it with a calculation of "average unplanned downtime". We also support the change in the definition of "downtime" to replace "access seeker or end-user" with "connection". We agree this enhances certainty.	 The new definitions of "connection", "planned downtime" and "unplanned downtime" in 1.1.4(2); The changes to the definition of "downtime" in 1.1.4(2); The change in the quality metric in 2.5.1(1)(a)(ii) to "average unplanned downtime"; and The change in quality metric in 3.6.1(1)(a)(ii) to "average unplanned downtime".
1.1.4(2) and 3.1.1	The Commission proposes amendments to clarify that the definitions of the Specification of Price and Revenues fibre IM for "total FFLAS revenue", "allowable revenue", "pass-through costs" and "building blocks revenue" can be applied on a forecast basis. We agree this change is necessary and we requested it be made earlier in the Rules and Processes consultation in May 2020. The current	 We agree with the Commission's proposed drafting for: Changes to 3.1.1(1) The new definitions of "forecast allowable revenue" and "forecast total FFLAS revenue" in clause 1.1.4(2).

¹³ Chorus, Submission on the Commerce Commission's fibre input methodologies -draft decision reasons paper (regulatory processes and rules), 29 May 2020, Appendix A

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	drafting would require Chorus to be able to perfectly forecast demand ahead of time so that actual revenue did not exceed allowable revenue.	We are comfortable with the definition of "forecast wash-up accrual" subject to our comments in our submission on the August 2021 IM amendments. 14 We proposed changes to 3.1.1(2) in our submission on the August 2021 IM amendments. 15
2.2.13(3)(a) B1.1.3 2(a)	Easements are generally regarded as protecting the rights and access to Chorus transport fibre laid in private land. They are not required for assets in road reserve. Primarily the costs involved are the transactional costs of registering the easement on the title, usually including both parties' legal costs. Chorus does not have any valuations carried out by registered valuers. Even if Chorus did get a registered valuer to value easements, it is highly unlikely the recorded value would be higher than any value a valuer would place on any of these easement assets (which would also take into account the importance of each easement with regards to its use). Total recorded easement value over the pre-implementation period is immaterial. The requirement to have easement valuations by a registered valuer is unnecessary and manifestly excessive.	Remove the requirement to limit the value of easements to their market value as determined by a registered valuer. Clauses 2.2.13(3)(a) and B1.1.3 2(a) should be deleted. As the only instance of the defined term "valuer" appears to be in relation to easements, the defined term can be deleted from clause 1.1.4(2).

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 $^{^{14}}$ Chorus, Amendments to the Input Methodologies for Fibre - August 2021 amendments, 24 June 2021, paras 21-38 15 Ibid

Appendix B – Drafting changes to IM Determination

Definition of notional deductible interest

Clause 2.3.1

Replace clause 2.3.1(7) with the following:

(7) For regulated fibre service providers subject to both information disclosure regulation and price-quality regulation, 'Notional deductible interest' means the value determined in accordance with the following formula:

Sum of all opening RAB values x leverage x cost of debt – Crown financing deductible interest

where:

'Crown financing deductible interest' is calculated as of the last day of the preceding disclosure year using the following formula:

Senior debt outstanding x cost of debt for that disclosure year + subordinated debt outstanding x (cost of debt for that disclosure year + 0.41%) + equity outstanding x (0.25 x cost of debt for that disclosure year)

Insert new clause 2.3.1(7A):

(7A) For regulated fibre service providers subject only to information disclosure regulation, subject to subclauses (8)-(9), 'Notional deductible interest' means the value determined in accordance with the following formula:

(sum of all opening RAB values – Crown financing outstanding) x leverage x cost of debt

where:

Crown financing outstanding is the amount of Crown financing outstanding as of the last day of the preceding disclosure year.

Re-opener for individual capex allowances

Clause 3.9.1

Insert new clause 3.9.1(4):

(4) The Commission must reconsider and amend a regulated provider's PQ determination if the Commission determines an individual capex allowance under clause 3.7.28.

Clause 3.9.2

Insert new clause 3.9.2(6):



(6) If the Commission determines an individual capex allowance under clause 3.7.28, it must publish notice on its website as soon as practicable thereafter of its intention to reconsider and amend the relevant PQ determination.

Clause 3.9.8

Amend clause 3.9.8 as follows:

(1) Subject to subclause (2), if the Commission is satisfied under clause 3.9.2(5) that a reopener event has occurred, then the Commission must have regard to at least the following matters when deciding whether to amend the relevant PQ determination:

(2) The Commission must amend the relevant PQ determination if it has determined an individual capex allowance under clause 3.7.28.

Clause 3.9.9

Amend clause 3.9.9 as follows:

(1) Subject to subclauses (2) and (4), if the Commission decides that the PQ determination should be amended, the Commission may amend the price path and the quality standards to take account of part or all of the net effects of the reopener event on costs, revenues, and PQ FFLAS quality outcomes.

...

(4) If the Commission has determined an individual capex allowance under clause 3.7.28, the Commission must amend the PQ determination to include all of the impact of the individual capex allowance on forecast allowable revenue for the relevant regulatory period or periods.

Annual benefit of Crown financing building block

Clause 2.4.10

Amend clause 2.4.10 as follows:

(1) In respect of regulated fibre service providers subject to both information disclosure regulation and price-quality regulation in regulations made under s 226 of the Act, 'annual benefit of Crown financing building block' for a disclosure year is calculated as the sum of the amounts calculated in accordance with the following formula for each day of the disclosure year-

$$(A \times B) + (C \times D),$$

where-

(a) A is the amount determined in accordance with the following formula:

((proportion of 'B' that is senior debt \times cost of debt for that disclosure year) + (proportion of 'B' that is subordinated debt \times (cost of debt for that disclosure year + 0.41%))) \times E;

- (b) B is the amount of Crown financing outstanding in respect of the regulated provider (or related party as referred to in section 164 of the Act) on the first at the start of the day in question of the disclosure year that is debt (whether senior or subordinated);
- (c) C is the amount determined in accordance with the following formula: $((0.75 \times cost\ of\ equity\ for\ that\ disclosure\ year) + (0.25 \times cost\ of\ debt\ for\ that\ disclosure\ year)) \times E; -and$
- (d) D is the amount of Crown financing outstanding in respect of the regulated provider (or related party as referred to in section 164 of the Act) on the first at the start of the day in question of the disclosure year that is equity;; and
- (e) E is determined in accordance with the following formula:

1 ÷ number of days in the disclosure year.

Clause 3.5.11

Amend clause 3.5.11 as follows:

(1) For the purposes of specifying a price-quality path, "annual benefit of Crown financing building block" for a regulatory year in a regulatory period is determined as the sum of the amounts calculated in accordance with the following formula for each day of the regulatory year-

$$(A \times B) + (C \times D),$$

where-

- (a) A is the amount determined in accordance with the following formula:
 - ((proportion of 'B' that is forecast to be senior debt × cost of debt for that regulatory period) + (proportion of 'B' that is forecast to be subordinated debt × (cost of debt for that regulatory period + 0.41%)))
 × E;
- (b) B is the forecast amount of Crown financing outstanding in respect of the regulated provider (or related party as referred to in section 164 of the Act) on the first at the start of the day in question of the regulatory year that is debt (whether senior or subordinated);
- (c) C is the amount determined in accordance with the following formula:
 - $((0.75 \times cost \ of \ equity \ for \ that \ regulatory \ period) + (0.25 \times cost \ of \ debt \ for \ that \ regulatory \ period)) \times E; \frac{}{and}$

- (d) D is the forecast amount of Crown financing outstanding in respect of the regulated provider (or related party as referred to in section 164 of the Act) on the first at the start of the day in question of the regulatory year that is equity; and
- (e) E is determined in accordance with the following formula:

1 ÷ number of days in the regulatory year.

Depreciation in year of commissioning

Clause 2.2.5

Amend clause 2.2.5(2)(b) as follows:

(b) a core fibre asset with a FFLAS commissioning date in the disclosure year in question, its value of commissioned asset; and the value determined in accordance with the formula-

value of commissioned asset - unallocated depreciation

Clause 2.2.8

Insert new clause 2.2.8(3A):

- (3A) For the purpose of subclause (1), in the case of a fibre asset with a FFLAS commissioning date in the disclosure year in question, a regulated fibre service provider must determine 'unallocated depreciation' and 'depreciation' using a depreciation method consistent with GAAP, unless:
 - (a) an alternative depreciation method is applied for some or all fibre assets in accordance with clause 3.3.2(5); or
 - (b) a different depreciation method is applied for some or all fibre assets in accordance with clause 3.3.2(6).

Clarifying definition of connection capex

Clause 1.1.4

Amend definition of connection capex as follows:

Connection capex

means capital expenditure approved by the Commission as part of the connection capex baseline allowance or the connection capex variable adjustment and directly incurred by Chorus in relation to: (i) connecting new end-user premises, building or other access points, or (ii) upgrading existing connections to end-user premises to support new or enhanced services, where the communal fibre network already exists or will exist at the time of connection, and includes:

Addressing stranding risk

Clause 3.3.5

Amend clause 3.3.5(2) as follows:

(2) The annual ex-ante allowance for asset stranding is the amount determined in accordance with the formula-

 $A \times B$

where-

- (a) A is 0.001 specified in a PQ determination; and
- (b) B is the average of-
 - (i) the sum of opening RAB values for each regulatory year of the regulatory period for all core fibre assets and the opening RAB value for the financial loss asset;
 - (ii) the sum of closing RAB values for each regulatory year of the regulatory period for all core fibre assets and the closing RAB value for the financial loss asset.