

APPENDIX C: CHORUS PROPOSED AMENDMENTS TO THE DRAFT IM DETERMINATION

This table outlines Chorus' views on the Commission's draft IM Determination. It includes issues we have identified with the draft approach and proposes alternative drafting where relevant (in red font for ease of reference). This table follows the structure of the draft IM Determination. Where we propose a new clause, we provide reference to it in square brackets according to where it would logically sit in the draft IM Determination.

The following notes indicate changes that affect multiple rows in the table:

1. **Definitions of regulated services:** As currently drafted, UFB FFLAS is defined as excluding regulated FFLAS. However, this is inconsistent with the definition of regulated FFLAS, which is defined sufficiently widely to capture UFB FFLAS: "*all FFLAS provided by a regulated provider over a fibre network that is subject to regulations under section 226 of the Act.*" We have suggested several drafting changes to clarify that UFB FFLAS does not exclude regulated FFLAS.
2. **Technical definitions:** In our view, technical definitions (such as outage, availability, restore, etc.) shouldn't be defined by reference to regulated FFLAS. If regulation of a scenario to which the technical term relates is limited to regulated FFLAS, this should be dealt with in the relevant operative provision, rather than creating a definition which is artificially limited to FFLAS. The table below includes examples of how technical definitions should be amended to address this issue. We have identified in the table where consequential changes are required to the operative clauses to make it clear that the clause applies to regulated FFLAS, however there may be other changes needed that we have missed in the timeframe of our review.
3. **PQ FFLAS and ID FFLAS:** Under the section 226 regulations, Chorus will only be subject to PQ regulation in areas where a regulated fibre service provider (other than Chorus) has not installed a fibre network as part of the UFB initiative. Accordingly, it will be necessary for the IM draft determination to distinguish between regulated FFLAS that is subject to both PQ and ID regulation and regulated FFLAS that is only subject to ID regulation. We do not consider that the draft currently achieves this.
4. **Formulae:** With respect to amendments to formulae, we propose several changes, some of which reflect corrections to errors we have identified. As it is critical that the IM Determination uses correct formulae, we would be happy to have a discussion with the Commission to ensure the accuracy of formulae. We have included a description of and proposed correction to these errors where possible, however there may be others we have missed in the timeframe of our review.
5. **Cost of Capital Drafting Changes:** Formulae and other drafting changes that reflect and give effect to our Cost of Capital proposals are listed in this table where relevant. For coherency and simplicity, we have provided the full set of proposed Cost of Capital changes tracked against the draft IM Determination, in the Report entitled "Sapere for Chorus – Draft IM determination 2020 - Cost of Capital", prepared by Sapere. References in this Appendix to "Sapere's proposed changes" are to that Report, unless otherwise indicated.

Principle of proportionate scrutiny: In our submission and in the table below we refer to the proportionate scrutiny principle outlined by the Commission in its Reasons Paper. We agree that proportionate scrutiny is an important principle and should guide the Commission's approach. While we recognise that proportionate scrutiny is not reflected in the IMs (similar to the key economic principles), we propose that the Commission provide further detail on how proportionate scrutiny will be applied in practice.

Principle of transition: In addition, an aspect of proportionate scrutiny that is particularly relevant in the case of Chorus is that the Commission's evaluation of expenditure proposals (and its approach to PQ regulation more generally) must take into account where Chorus is on its asset management journey. Chorus is transitioning into a new regulatory framework and that will necessarily require a period of development and adaptation. We invite the Commission to include this consideration expressly in its formulation of proportionate scrutiny in its updated draft decisions, including in the IMs.

Reference in Draft Determination	Issue	Proposed change to the draft IM Determination
PART 1: General provisions - Interpretation		
30 June 2012 WACC - 30 November 2011 WACC	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
50th percentile estimate of WACC	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
[67 th percentile estimate of WACC]	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
Availability	<p>“Availability” is a generic term and should not be defined in relation to “a fibre network” or in relation to “regulated FFLAS”.</p> <p>Further, as “availability” is a quality dimension under clauses 2.5.1 and 3.5.1 on which Chorus can be measured, it is inappropriate to define it in relation to whether an end-user can use regulated FFLAS, given Chorus does not service end-users directly and there could be several reasons why an end-user cannot use FFLAS that are not related to Chorus’ performance.</p> <p>We have suggested amendments to the definition of “availability”.</p>	Availability means the extent to which a service is not subject to an outage.
Avoided financing cost building block	The definition of “avoided financing cost building block” refers to clause 2.2.3(25), however that clause only refers to the pre-implementation period. Box 3.1 in the Reasons Paper (which discusses the maximum allowable revenue for the post-implementation period) suggests that an equivalent definition of “avoided financing cost building block” is required to address the post-implementation period.	Clause 2.2.5 needs to address the impact of the avoided financing cost building block on the financial loss asset in the roll forward, in accordance with the Commission’s Reasons Paper and in light of Chorus’ submissions.
Capital contribution	The Commission’s proposed treatment of capital contributions is a departure from GAAP and is inconsistent with Chorus’ treatment. In accordance with GAAP, Chorus does not deduct the value of its capital contributions from the related asset value.	Capital contribution (a) means money or the monetary value of other considerations charged to or received by a regulated provider in relation to the construction, acquisition or enhancement of a fibre asset or UFB asset, where the value of the money or consideration is deducted from the value of the asset in the regulated

	We propose amending the definition so that the regulatory treatment of capital contributions is aligned with the GAAP treatment in Chorus' financial accounts.	provider's general purpose financial statements and is received from 1 or more of the following: (i) an access seeker; (ii) an end-user; or (iii) any other party; but (b) does not include any Crown financing;
Chorus	As currently drafted, the definition of "Chorus" includes entities not subject to Part 6. Under section 175 of the Act, input methodologies only apply to each relevant regulated fibre service provider. "Regulated fibre service provider" is defined as a person who is prescribed in regulations made under section 226 as being subject to one or both of ID and PQ regulation. The regulations made under section 226 provide that "Chorus Limited" is subject to PQ and ID regulation, but do not extend to any subsidiary of, or successor to, Chorus.	Chorus means Chorus Limited
Commissioned	We consider the use of the term "employed" in this definition to be vague. In addition, the term "employed" does not work well with the definition of "commissioning date", which assumes that the definition of "commissioned" has a clear start date. In our view, it is clearer to use the term "available for use" rather than "employed." Our proposed definition is also more consistent with how the term "commissioned" has been defined in IMs under Part 4 of the Commerce Act.	Commissioned means: (a) for the purpose of determining the unrecovered returns on investment under clause 2.2.3, available for use by a regulated provider to provide UFB FFLAS (whether or not the UFB asset is also employed in providing other services); and (b) in all other instances, available for use by a regulated provider to provide regulated FFLAS (whether or not the fibre asset is also employed in providing other services).
Commissioning date	As described above in relation to the definition of "commissioned", we propose replacing the term "employed" with "available for use".	We suggest amending this definition as necessary to reflect our proposal above for "commissioned".
[Connection]	This term is not defined but is frequently used – see for example the definition of "connection capex". We have proposed a definition that is consistent with the definition of FFLAS in the Telecommunications Act.	Connection means the connection of the regulated provider's fibre network to the user-network interface (or equivalent facility) of an end-user's premises, building, or other access point by way of end-user specific infrastructure, and connected and connections will be construed accordingly.
Connection capex	The definition of "connection capex" should be sufficiently flexible so as to include indirect as well as direct expenditure. In addition, the definition of "connection capex" should capture migration from all copper services, not just "copper fixed-line access services", which is defined narrowly by reference to the definition in the Telecommunications Act to only include UBA	Connection capex means capital expenditure by Chorus that is incurred directly or indirectly in relation to connecting new end-user premises, building or other access point where the communal fibre network already exists or will exist at the time of connection, and is made up of a connection capex baseline component and a connection capex variable component, and includes: (a) UFB initiative brownfield connection expenditure; (b) UFB initiative greenfield and infill connection expenditure; and

	and UCLFS services. We have suggested amending sub-clause (c) to address this issue.	(c) Chorus initiated migration from telecommunications services provided over copper fixed lines to regulated FFLAS.
Connection Unit Rate	In our view "cost" is a better descriptor than "rate". In addition, the term "connection unit cost" is used in clause 3.6.17(2)(c) but is not defined.	Connection Unit Cost means a connection average cost for a connection type.
Customer premises equipment	In line with our comments regarding definitions for technical terms, "customer premises equipment" should not be defined in relation to "regulated FFLAS". We have suggested amendments to remove references to regulated FFLAS. It is also inappropriate for the definition of "customer premises equipment" to include the ONT. When we install an ONT it remains Chorus' property and is part of our network. We distinguish between Chorus' equipment located on an end-user's premises (which we refer to as Customer Located Network Equipment), and customer premises equipment, which is equipment owned by the end-user or an access seeker.	Customer premises equipment means equipment installed at an end-user's physical location that is owned by an end-user or access seeker.
Debt premium reference year	As discussed in our submission, we support Sapere's proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere's proposed changes to the draft IM Determination.
Dedicated asset	This definition assumes that the fixed term for which an asset is ring-fenced will always mirror the life of the asset, which is not the case. We have suggested simplifying the definition to align it with the definition of "dedicated asset" under clause 2.2.8(5)(a) of the EDB IMs.	Dedicated asset means a core fibre asset operated for the benefit of a particular customer pursuant to a fixed term agreement for the provision of regulated FFLAS between the regulated provider in question and customer.
Depreciation	We have suggested a minor drafting change to reflect our proposed amendment to the definition of "remaining asset life" below. We also note that a different concept of depreciation applies prior to the implementation date (i.e. for the financial loss asset calculation and when establishing the opening value for physical assets.) Accordingly, the Commission may want to consider using different terms for the two concepts, or changing the definition of depreciation to note that prior to the implementation date depreciation is calculated in accordance with clause 2.2.3(27).	Depreciation means an allowance in the disclosure year in question to account for the diminution in the remaining asset life of a fibre asset in that disclosure year with respect to its opening RAB value, where the amount of such allowance is: (a) for regulated providers subject only to information disclosure regulation in regulations made under s 226 of the Act, determined in respect of a fibre asset for the purpose of Part 2, in accordance with clause 2.2.6(3); and (b) for regulated providers subject to both information disclosure regulation and price-quality regulation in regulations made under s 226 of the Act,- i. determined in respect of fibre assets for the purpose of Part 2, in accordance with clause 2.2.7(3); and ii. determined, in respect of fibre assets for the purpose of Part 3, in accordance with clause 3.2.2(3).

Disclosure year	Chorus currently reports in accordance with our financial year (1 July – 30 June). We would have difficulty reporting in accordance with a disclosure year that isn't aligned with our financial year.	The definition should be amended to align with Chorus' financial year of 1 July – 30 June.
Disposed asset	As currently drafted, the definition of "disposed asset" refers to both a "fibre asset" and a "UFB asset". It is not clear why both references are required as "UFB asset" falls within the wider definition of a "fibre asset".	Disposed asset means a fibre asset that, in the disclosure year or financial loss year in question, has been sold or transferred, or has been irrecoverably removed from the regulated provider's possession without consent.
Downtime	In line with our comments regarding definitions for technical terms, "downtime" should not be defined in relation to "regulated FFLAS". We have suggested amendments to remove the reference to regulated FFLAS.	Downtime means the length of time that a service is subject to an outage.
Easement land	We have suggested a minor drafting change. The proposed change is consistent with the definition of "easement land" in the Transpower IMs.	Easement land means land acquired with the intention of- (a) creating an easement in respect of it; and (b) disposing of the land thereafter.
Fault	We suggest fault' is a subset of 'outage'. The exclusions in the Commission's wording are appropriate but should be incorporated into the 'outage' definition as any outage of the kind described in the exclusions should not have consequences for Chorus (see below).	Fault means an unplanned outage of a service caused by a matter for which the regulated provider is responsible.
FFLAS product families	We have suggested a minor drafting change to replace the word "families" with "family."	FFLAS product family means a group of regulated FFLAS products that differ in configuration but bear essentially the same costs.
[Financial loss WACC]	As discussed in our submission, we support Sapere's proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere's proposed changes to the draft IM Determination.
Frame delay variation	We suggest a minor drafting change for clarity.	Frame delay variation means the variation in frame delay over a time interval.
Frame Loss	The current definition of "frame loss" is not consistent with the engineering definition, and the generally accepted term is "frame loss <i>ratio</i> ". Frame loss ratio is usually expressed as a percentage, and not as a number of frames.	Frame Loss Ratio means a characterisation of the portion of lost service frames between the ingress interface and the egress interface, expressed as a percentage.
[Impairment losses]	This term is used frequently throughout the determination but is not defined. We suggest adding a definition for "impairment losses" that references GAAP.	Impairment losses has the same meaning as under GAAP.

Individual capex	There may be considerable uncertainty as to whether a project or programme will cross the \$5 million threshold – for example, due to reliance on forecasts and allocator metrics such as connection volumes. Accordingly, as currently drafted the definition creates a potential gap where the forecast capital expenditure is over \$5 million, but the actual expenditure comes in at less than \$5 million. We suggest amending the definition so that it captures projects or programmes where the <i>forecast</i> capital expenditure is over \$5 million (even if the actual capital expenditure then falls below the \$5 million threshold).	Individual capex means capital expenditure by Chorus that is incurred in relation to a project or programme where the forecast capital expenditure for regulated FFLAS on that project or programme amounts to at least \$5 million.
Leverage	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
Network spare	We note that “asset” should not be in bold text in this definition as it is not a defined term.	
Operating cost	This definition includes reference to “depreciation” and “revaluations”. Those terms are defined, so should be in bold text.	
Ordering	Ordering is not only about new connections. We have proposed a change that also makes “ordering” consistent with “provisioning”, which has been defined to include modifying a service.	Ordering means management of a request from an access seeker to provide a service, or change the service that is provided, including how the request is accepted or rejected.
Outage	As currently drafted, the reference to an access seeker or end-user being “unable to use regulated FFLAS” does not exclude service interruptions caused by the end-user or access seeker or where the regulated provider has good cause to disconnect the service (such as breach of contract, etc.) We have proposed changes to the definition of “outage” to ensure that a regulated provider is not punished for outages that it does not cause and to align the definition with our proposed changes to the definition of “fault”. In addition, in line with our comments regarding definitions for technical terms, “outage” should not be defined in relation to “regulated FFLAS”. We have suggested amendments to remove the reference to regulated FFLAS.	Outage means the interruption of supply of a service to an access seeker on the regulated provider’s fibre network, and excludes: <ul style="list-style-type: none"> (a) service interruptions initiated or caused by an end-user or access seeker; (b) service interruptions caused by customer premises equipment; (c) disconnection of the service for breach of contract, as a result of a request from the access seeker, or for reasons of safety; or (d) switching.
Partly deregulated asset	We understand that this definition is intended to provide for a situation where a shared asset is removed from regulation (i.e.	Deregulated shared asset means

	<p>where only part of the shared asset is attributable to the deregulated component of regulated FFLAS.)</p> <p>However, the term “partly deregulated asset” is confusing because it suggests that the term is instead intended to describe a situation where an asset is initially regulated by both ID and PQ, and then is de-regulated in respect of one type of regulation, but not the other. Our proposed definition clarifies this by amending the name of the term. This proposed amendment will require changes to be made every time the term is used in the draft IM determination.</p>	<p>(a) for the purpose of Part 2, a core fibre asset with an asset value that is not directly attributable to the provision of regulated FFLAS, where that service or the circumstances in which that service is supplied, has been removed from information disclosure regulation under s 226 of the Act;</p> <p>(b) for the purpose of Part 3, a core fibre asset with an asset value that is not directly attributable to the provision of regulated FFLAS, where that service or the circumstances in which that service is supplied, has been removed from price-quality regulation under s 226 of the Act.</p>
Performance	<p>In line with our comments regarding definitions for technical terms, “performance” should not be defined in relation to “regulated FFLAS”. We have suggested amendments to simplify the definition and remove the reference to regulated FFLAS.</p>	<p>Performance means the technical functioning of a service provided using a fibre network.</p>
Port utilisation	<p>We have suggested a minor drafting change to this definition for clarity.</p>	<p>Port utilisation means the amount of traffic on a port relative to the port’s traffic capacity over a time interval, expressed as a percentage.</p>
Provisioning	<p>Provisioning processes will generally include access seeker and end-user actions. Accordingly, the definition of “provisioning” should be defined so as to clearly relate to the regulated provider’s provisioning actions, as opposed to the whole process of getting the service up and running.</p> <p>In addition, in line with our comments regarding definitions for technical terms, “provisioning” should not be defined in relation to “regulated FFLAS”. We have suggested amendments to remove the reference to regulated FFLAS.</p>	<p>Provisioning means the fulfilment process carried out by the regulated provider in response to a request accepted through ordering.</p>
Proxy cost allocator	<p>We suggest removing the default allocators from the definition of “proxy cost allocator”. The default allocators are only intended to apply prior to the implementation date. Including the default allocators in the definition of proxy cost allocator would make those default allocators apply after the implementation date as well. We note that the list of default allocators is found in clauses 2.1.4(1) and (2), and that the same list of default allocators is not included in the definition of “proxy asset allocator” as currently drafted.</p>	<p>Proxy cost allocator means a proportion of a quantifiable measure-</p> <p>(a) used to allocate operating costs for which a causal relationship cannot be established; and</p> <p>(b) whose quantum is based on factors in existence during the 12-month period terminating on the last day of the most recent disclosure year or financial loss year in respect of which the cost allocation is carried out,</p> <p>which in each case-</p> <p>(c) is consistent with similar measures, both within a disclosure year or financial loss year and from year to year; and</p> <p>(d) is objectively justifiable and demonstrably reasonable.</p>

Regulated FFLAS	Under the section 226 regulations, Chorus will only be subject to PQ regulation in areas where a regulated fibre service provider (other than Chorus) has not installed a fibre network as part of the UFB initiative. Accordingly, it will be necessary for the IM draft determination to distinguish between regulated FFLAS that is subject to both PQ and ID regulation and regulated FFLAS that is only subject to ID regulation. To address this, we have amended the definition of "regulated FFLAS" to ensure that Part 3 of the draft IM determination (i.e. IMs for PQ paths) only applies to FFLAS that is subject to PQ regulation under the section 226 regulations.	Regulated FFLAS means <ul style="list-style-type: none"> (a) for the purpose of Part 2, all FFLAS provided by a regulated provider over a fibre network that is subject to information disclosure regulation under section 226 of the Act; and (b) for the purpose of Part 3, all FFLAS provided by a regulated provider over a fibre network that is subject to price quality regulation under section 226 of the Act.
Remaining asset life	This definition is currently defined in relation to a fixed point in time (at the commencement of the disclosure year in question). However, the term is used in several provisions where "remaining asset life" is linked to a different point in time – for example, clause 2.2.6(4)(b) and clause 2.2.7(4)(b) refer to "the fibre asset's remaining asset life at the end of the year". We suggest that "remaining asset life" is amended to remove the reference to "the commencement of the disclosure year in question." This means consequential changes will be required to the operative provisions where "remaining asset life" is used to clarify when the remaining asset life should be measured.	Remaining asset life means the term remaining of the fibre asset's asset life.
[Resident in New Zealand]	"Resident in New Zealand" is not defined but is used in several places in the Cost of Capital IM in relation to the 'investor tax rate'. We suggest adding a definition that references the Income Tax Act.	Resident in New Zealand has the same meaning as defined in section YA1 of the Income Tax Act 2007.
Restore	In line with our comments regarding definitions for technical terms, "restore" should not be defined in relation to "regulated FFLAS". In addition, we consider that reference to an "end-user's regulated FFLAS" is confusing. We have suggested amendments to remove the reference to "end-user's regulated FFLAS".	Restore means when a service functions again following a fault.
[Shared costs]	As discussed in our submission, the Commission uses the term 'shared costs' and 'common costs' interchangeably to refer to costs that are common to two or more types of services, but not directly attributable to an individual service. As per the Commission's EDB Input Methodologies Reasons Paper (December 2010), it would be more appropriate to refer to	Shared costs means costs incurred by the regulated provider that are not directly attributable to regulated FFLAS or services that are not regulated FFLAS.

	<p>'shared costs' – defined in the allocation steps as costs that are not directly attributable to the regulated service or unregulated services. This terminology is desirable as it avoids any confusion with the different concept of 'common costs' in economics (where the Commission referred to in that 2010 Reasons Paper as 'economic common costs'), where 'common costs' are all costs that are not incremental costs.</p> <p>We have suggested a definition for "shared costs." We note that all references to "common costs" in the draft IM Determination will need to be replaced with "shared costs".</p>	
Switching	In line with our comments regarding definitions for technical terms, "switching" should not be defined in relation to "regulated FFLAS". We have suggested amendments to remove the reference to regulated FFLAS.	Switching means the process by which a regulated provider changes an end-user's service connection from one access seeker to another access seeker and includes disconnections.
UFB FFLAS	<p>We understand this definition is aiming to ring-fence FFLAS provided under the UFB initiative. However, as currently drafted it excludes regulated FFLAS. This cannot be correct as UFB FFLAS will in most instances also fall within the definition of regulated FFLAS, which is defined widely as "all FFLAS provided by a regulated provider over a fibre network that is subject to regulations under section 226 of the Act."</p> <p>We suggest amending the definition to clarify this point, and also to clarify that UFB FFLAS includes FFLAS provided under a contract during the UFB initiative where the provisions of that contract have been preserved under Schedule 1AA of the Telecommunications Act.</p>	UFB FFLAS means any FFLAS provided by a regulated provider over a fibre network under the UFB initiative during the period starting on 1 December 2011 and ending on the close of the day immediately before the implementation date, and for the avoidance of doubt, includes FFLAS provided under a contract during the UFB initiative where the provisions of that contract have been preserved under clause 9 of Schedule 1AA of the Act."
Part 2: IMs for Information Disclosure		
Cost allocation		
2.1.3(4)	<p>As described in our submission, we disagree with the draft decision to impose a cap on the allocation of shared costs. We consider this cap is unnecessary given the inherent incentives in the regime to minimise costs.</p> <p>If the Commission does not accept our proposal, we consider that it should only be used in exceptional circumstances and request the Commission clarify what it seeks to achieve with</p>	We suggest that clause 2.1.3(4) is deleted.

	the cap, and how it would work in practice given that it is not a mechanism for optimisation.	
2.1.4 (1)(d) and (2)(b)	We propose to remove “average traffic” from the list of allocator types, and to instead include “used length of linear assets”, “power usage”, “number of events”, and “equally proportionate mark-up.”	(i) number of customers, end-users, or premises (intact, connected or passed); (ii) number of ports; (iii) revenue; (iv) central office space; (v) peak traffic; (vi) used length of linear assets; (vi) power usage; (vii) number of events; and (viii) equally proportionate mark-up.
2.1.4(2)(a)	This clause includes reference to “depreciation”. “Depreciation” is a defined term, so should be in bold text.	
2.1.4(2)(b)	This clause refers to substituting the term “regulated FFLAS” for “UFB FFLAS” in cl 2.2.3(27). However that clause does not appear to use the term “regulated FFLAS”.	We recommend the Commission amend this clause as appropriate.
2.1.5(2)	As discussed in our submission, the Commission’s proposed level of granularity should align with existing data, accounts and systems unless there is justification to depart from this. In line with our comment on the principle of transition, we ask the Commission to take into account where Chorus is at on its asset management journey.	We propose that the Commission remove this clause. We consider that Table A.1 (Minimum levels of specificity to describe assets in the RAB), with our proposed amendments to that table as set out below, is sufficient for the purposes of the regime.
Asset valuation		
2.2.1	The reference to “total number” of fibre assets is odd as it suggests that the initial RAB is merely a count of assets, whereas the initial RAB is intended to be the accumulation of the fibre assets as at the implementation date. We consider that a more appropriate term is “accumulation of”, instead of “total number of”.	Composition of initial RAB ‘Initial RAB’ for a regulated provider means the accumulation of fibre assets as at the implementation date .
2.2.3(1)	The “financial loss asset” is defined as the “accumulated unrecovered returns”, but this latter value will have a negative sign, suggesting negative asset, which we consider is likely a technical error and not the Commission’s intention.	We suggest changing the formula for calculating the annual unrecovered returns on investment in clause 2.2.3(25) so an under recovery has a positive sign. This may require changes to other clauses, e.g., clause 2.3.4(3)(b), which assumes that an under recovery has a negative sign.
2.2.3(14)-(23)	We consider that these clauses include a technical drafting error, where the “WACC” should be “(1+WACC)”.	See Sapere’s proposed changes to the draft IM Determination.

	<p>Additionally, the annual loss accumulation factor calculation is wrong and inconsistent. The annual loss accumulation factor is the product of in-year WACC factors (so could express it differently, if wanted, by having accumulated annual loss and applying the annual factor of (1+WACC) to that, and then adding that year's loss, etc (which is what we do in the BBM model).</p> <p>Instead of progressively multiplying by a factor of WACC (year), it should be a factor of "(1+ WACC(year))" for full year periods and part year periods would be "(1+WACC)^(fraction of year)".</p> <p>We note that Sapere has proposed the use of a single WACC for the pre-implementation period. If this approach is accepted by the Commission the formulae could be further simplified.</p>	
2.2.3(23)	This clause needs to be amended to reflect that this financial loss year is only a 6 month period.	See Sapere's proposed changes to the draft IM Determination.
2.2.3(25)	<p>We consider that the IMs need to include more details regarding the method used to calculate the avoided financing cost building block. The current proposal does not provide sufficient certainty as to how the Commission will implement its decision. We propose the Commission adopts our suggested changes.</p> <p>Additionally, we note that the calculations in sub-clause (25) are in year-end terms. We note that EDB disclosure calculations are in revenue date terms. We think the annual financial loss calculation should be in revenue date terms to be consistent with EDB calculations, this means that the formula would need to change as we propose.</p>	<p>'Avoided financing cost building block' means the avoided financing cost on the concessionary Crown financing for the financial loss year in question:</p> <p>(a) calculated, where Crown financing is provided by way of debt, in accordance with the formula-</p> $C_f \times d_r$ <p>where-</p> <p>C_f means the Crown financing amount; and</p> <p>d_r means the avoided cost debt rate that, so far as practical, is calculated using assumptions that are consistent with those applied to calculate the WACC, including:</p> <ul style="list-style-type: none"> (i) the credit rating that is assumed for the avoided debt (ii) the term that is assumed for the avoided debt, and (iii) the date or dates at which market interest rates are observed in order to estimate the avoided cost debt rate. <p>(b) calculated, where Crown financing is provided by way of equity, in accordance with the formula-</p> $C_f \times e_r$

		<p>where- Cf means the Crown financing amount; and er means the avoided cost equity rate, as determined by the Commission;</p> <p>(c) calculated, where Crown financing is provided by way of a combination of debt and equity, as the sum of the amounts in paragraph (a) and (b), as determined by the Commission, where the nature of the Crown financing (whether paragraph (a), (b), or (c) applies)) for Chorus shall be treated as provided by way of debt and for the other LFCs is a matter for the Commission to determine.</p> <p>Formulae required for revenue date calculations (as opposed to year end):</p> <p>financial loss year (revenue date terms) = UFB revenues – (UFB + avoided financing cost building block)/TFrev</p> <p>When the financial loss is represented in revenue date term the PV calculation for the Closing Loss will change from</p> <p>Closing PV (Annual Losses) = Opening PV (Annual Losses) + WACC * Opening PV - as calculated in the workbook</p> <p>to:</p> <p>Closing PV (Annual Losses) = Opening PV (Annual Losses) + WACC * Opening PV + (TFrev -1) * Annual Loss</p>
2.2.3(26)(f)	This formula appears incorrect in that it takes depreciation into account when calculating TFvca and will therefore give negative returns in the year of commissioning for some assets.	(f) 'PVvca' means the sum of the present value of value of commissioned assets for commissioned assets, where each present value is determined by discounting each value of commissioned assets by the cost of capital from the relevant commissioning date to the commencement of the relevant financial loss year.
2.2.3(27)	<p>We consider that the formula for 'UFB costs' contains the following technical errors and it is important that these are corrected. We outline these errors below and propose corrections:</p> <ol style="list-style-type: none"> 1. it should include the value of commissioned assets (where it means "+ (TFVCA - 1) x sum of value of commissioned assets"); and 2. the sign for depreciation should be a minus, not an addition (this needs to be reflected throughout clause 2.2.3(27)); and 	<p>For clarity, we split the proposals.</p> <p>Correction for issues (1) – (2):</p> <p>(opening UFB asset base value x cost of capital) + sum of value of commissioned assets + operating expenditure + tax costs + depreciation + allowance for asset stranding</p> <p>Where "sum of value of commissioned assets" in the formula above would be calculated as "+ (TFVCA - 1) x sum of value of commissioned assets"</p>

	<p>3. mixes terms that are 'allocated' items (i.e. "opening UFB asset base value") with unallocated items (i.e. "depreciation" and "value of commissioned assets").</p> <p>The effect of this last point is that the roll-forward is based off allocated values, where the effect of changes in allocators will not flow through.</p> <p>While the wording in the definition of "opening UFB asset base value" for 2013 onwards appears to envisage an allocation, this definition seems to require an allocation of an already allocated value and so does not make sense. Our proposal to link this to "unallocated UFB asset values" would simply link the UFB RAB during the loss period to Chorus's accounting values (with adjustments for the depreciation effect of CIP finance), which is what we thought the Commission was intending.</p>	<p>Where "allowance for asset stranding" is as per formula in clause 3.2.5.</p> <p>Note that this formula is linked to 2.2.3(26)(a) and (f), which will also need to be changed if our proposed amendments above are adopted.</p> <p>Correction for issue (3):</p> <p>Change the terms to "unallocated opening UFB asset base value" and "unallocated closing UFB asset base value"; and</p> <p>Reference these to the sum of "unallocated UFB asset initial values"</p> <p>We consider the use of "initial" here is unnecessary.</p>
2.2.5	<p>We consider that this formula contains two errors:</p> <ol style="list-style-type: none"> 1. The numerator is incorrect and should only include the deregulated / sold assets that were in place at the implementation date. This is consistent with the Commission's intention of allocating the loss asset only to the assets in place at the implementation date; and 2. The denominator does not deal with the effect of changes in the allocation of the initial assets to FFLAS over time. Where the allocation of shared assets to FFLAS increases over time, the numerator will increase unless an adjustment is made, whereas the denominator will reflect the allocation at implementation date. <p>To correct these errors, we propose requiring both the numerator and the denominator to be calculated using the allocators at implementation date – i.e. the financial loss asset is pro-rated across the (allocated) RAB assets as they existed at the implementation date.</p>	<p>To give effect to this, the numerator needs to refer to the initial RAB values of the deregulated / sold assets (i.e. values as at the implementation date).</p> <p>Additionally, the denominator needs to refer to the "initial value of the core fibre asset base" (i.e. the aggregate value of physical assets as at the implementation date).</p>
2.2.6	<p>This clause includes references to "depreciation", which is a defined term and should be in bold text.</p>	<p>Bold "depreciation".</p>
2.2.6(4)(b)	<p>In our view, revaluations should be applied to all assets in each year (i.e. including their final year), as this simplifies the calculation of revaluations. Accordingly, clause 2.2.6(4)(b) should be amended so that depreciation of an asset in its final</p>	<p>(4) For the purposes of subclauses (2) and (3)- (a) 'unallocated depreciation' and 'depreciation' are nil in the case of- (i) land; and (ii) an easement other than a fixed life easement; and</p>

	year is set at the opening asset value plus revaluations for the year.	(b) in all other cases, where the fibre asset's remaining asset life at the end of the disclosure year is nil- (i) 'unallocated depreciation' is the fibre asset's unallocated opening RAB value plus the revaluation calculated for the asset for the disclosure year in question; and (ii) 'depreciation' is the fibre asset's opening RAB value plus the revaluation calculated for the asset for the disclosure year in question.
2.2.10(3)(a)	As noted above, in our view, revaluations should be applied to all assets in each year (i.e. including their final year), as this simplifies the calculation of revaluations. Accordingly, we suggest that clause 2.2.10(3)(a) is deleted.	Delete clause 2.2.10(3)(a).
2.2.12(1)	<p>As currently drafted, this clause appears to be intended to apply to both existing assets as of the implementation date and additional assets commissioned after the implementation date. However:</p> <ul style="list-style-type: none"> • In the case of existing assets as of the implementation date: <ul style="list-style-type: none"> ○ clause 2.2.12(1)(a)(i) needs to specify that the cost of the asset is fixed as of its commissioning date (which will be some date prior to the implementation date); and ○ clause 2.2.12(i)(b) needs to specify that accumulated depreciation and impairment is calculated as of the implementation date. • In the case of additional assets commissioned after the implementation date, clause 2.2.12(1)(b) requires an adjustment for depreciation and impairment as of the commissioning date. There will be no depreciation or impairment as of the commissioning date for additional assets, so it is unclear why this requirement has been included. <p>It appears that this provision attempts to simply enact the language of s 177 of the Act. However, that provision principally applies to existing assets as of the implementation date that go into the initial RAB, rather than additional assets.</p> <p>Accordingly, the current drafting does not accurately address the treatment of pre- and post- implementation date assets. For clarity, we suggest setting out separate definitions of VCA for pre- and post-implementation assets.</p>	

2.2.12(2)(c)	<p>We agree that the need to hold sufficient spares to enable suitable responses to unplanned outages and to undertake maintenance efficiently must be balanced by ensuring that regulated providers are not encouraged to hold an inappropriately high number of spares. However, the historical reliability of the equipment is not a relevant consideration for regulated providers of telecommunications services.</p> <p>Unlike other regulated services, telecommunications technology moves very quickly. Accordingly, it is not appropriate to consider the historical reliability of the equipment when determining an appropriate number of spares as that will not be the most relevant information.</p> <p>We consider that a better approach is to ensure that the regulated supplier maintains network spares in accordance with Good Telecommunications Industry Practice. That is, the regulated supplier holds spares in appropriate quantities necessary to ensure it can respond to unforeseen events in a manner expected of a prudent and diligent supplier.</p>	(c) a network spare which is not required to meet Good Telecommunications Industry Practice, and in light of the number of the core fibre assets or UFB assets the network spare is held to replace, is nil;
2.2.12(3)(b)	As outlined in our submission, we propose that the pre-implementation interest rate applied to works under construction remain as those rates that actually applied. We have proposed amendments to clause 2.2.12(3)(b) to reflect this.	<p>2.2.12(3)(b) When applying GAAP for the purposes of subclause (1), the cost of financing is-</p> <p>(a) applicable only in respect of the period commencing on the date an asset becomes a works under construction and terminating on its commissioning date;</p> <p>(b) for each applicable disclosure year, calculated using a rate not greater than the regulated provider’s weighted average of borrowing costs for that disclosure year; and</p> <p>(c) for each applicable financial loss year, calculated using the regulated provider’s actual borrowing costs for that financial loss year.</p>
2.2.12(5)	<p>As discussed in our submission, we support the Commission’s draft decision not to undertake a review of costs for assets constructed pre-implementation nor to make pre-implementation costs subject to an ex-post efficiency review. However there appears to be no IM implementing this.</p> <p>We suggest that a sub-clause (c) be added to clause 2.2.12(5) to note that for the avoidance of doubt the Commission will not apply an ex-post efficiency adjustment once the asset is in the RAB.</p>	<p>(5) For the avoidance of doubt-</p> <p>(a) revenue derived in relation to works under construction that is not included in regulatory income under an ID determination or preceding regulatory information disclosure requirements reduces the cost of an asset by the amount of the revenue if such a reduction is not otherwise made under GAAP;</p> <p>(b) if, after a core fibre asset or UFB asset is commissioned, a regulated provider incurs expenditure on the core fibre asset or UFB asset that forms part of the cost of that core fibre asset or UFB asset under GAAP, such expenditure is treated as relating to a separate asset; and</p> <p>(c) the Commission will not adjust the value of any asset to reflect any inefficiency in the cost of constructing or acquiring that asset.</p>

<p>Table A.1: Minimum level of specificity to describe assets in RAB.</p>	<p>As discussed in our submission (refer to the section called 'minimum level of asset granularity'), the level of granularity in the RAB should reflect a balance between needing to understand assets and the asset lives attached to them, with a level of practicality to ensure the process is workable. While Chorus supports some minimum level of asset granularity, Chorus does not currently specify its assets in the way the Commission proposes and would have significant difficulty implementing this. We have proposed a more workable alternative.</p> <p>In accordance with our comment that the Commission should take into account where Chorus is at on its asset management journey, if the Commission does not accept our proposal, it should recognise our limited ability to comply during the transition.</p>	<table border="1"> <thead> <tr> <th>Category of asset</th> <th>Minimum levels of specificity to describe assets</th> </tr> </thead> <tbody> <tr> <td>Network layer</td> <td>Layers 1 and 2</td> </tr> <tr> <td>Asset type</td> <td>Includes feeder fibre, distribution fibre, roadside cabinet, customer premises and equipment</td> </tr> <tr> <td>Geographic location</td> <td>Address, building, area</td> </tr> <tr> <td>Shared with other parties</td> <td>Shared with entity - #</td> </tr> <tr> <td>Shared with other services</td> <td>Shared with power lines, copper telco cables / assets</td> </tr> <tr> <td>Special assets</td> <td>Assets supporting unbundling, assets relating to a point of interconnection</td> </tr> <tr> <td>Non-UFB initiative assets</td> <td>Core fibre assets not employed in the provision of UFB FFLAS</td> </tr> </tbody> </table>	Category of asset	Minimum levels of specificity to describe assets	Network layer	Layers 1 and 2	Asset type	Includes feeder fibre, distribution fibre, roadside cabinet, customer premises and equipment	Geographic location	Address, building, area	Shared with other parties	Shared with entity - #	Shared with other services	Shared with power lines, copper telco cables / assets	Special assets	Assets supporting unbundling, assets relating to a point of interconnection	Non-UFB initiative assets	Core fibre assets not employed in the provision of UFB FFLAS
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<p>[IM to clarify repurposed assets enter RAB at carrying value]</p>	<p>The Reasons Paper (at paragraphs 3.59 and 3.190) states that assets repurposed for FFLAS should be added to the RAB at 'carrying value'. There does not appear to be an IM that provides for this. We suggest the Commission include an IM to reflect this draft decision.</p>	<p>Assets repurposed wholly or solely for the use in the provision of regulated FFLAS will: (a) enter the RAB at the time of repurposing; and (b) valued at carrying value.</p>																
<p>Tax</p>																		
<p>2.3.1(1)–(6)</p>	<p>We consider a formula for calculating the regulatory tax allowance should be included. As currently drafted, the IM is unclear on how the Commission will determine such. For instance, it states that this is to be derived by applying "tax rules" to regulatory profit / loss, the latter of which will be defined later in some other instrument.</p>	<p>Regulatory taxable income = Revenue (ignoring revaluation gains) – Notional interest – Tax Depreciation – Opex</p>																
<p>2.3.1(6)(b)</p>	<p>This clause appears to propose calculating the tax depreciation from the apportioned tax asset value. This would be a complex exercise. We consider a simpler approach is to use the same allocator used to apportion the shared asset's value, capex or depreciation instead.</p>	<p>We recommend the Commission amend this approach accordingly.</p>																
<p>2.3.2(2)</p>	<p>The definition of "tax asset value" is vague in that it is defined in relation to the "tax depreciation rules", which does not seem appropriate as the tax value is a value not a meaning.</p>	<p>The definition could be improved by stating that the "adjusted tax value" is the value that is consistent with what Chorus uses for its calculation of taxation for the IRD.</p>																
<p>2.3.2(6)</p>	<p>The Opening UFB asset base value is also defined, and defined differently, in clause 2.2.3(27).</p>	<p>We request the Commission clarify which clause should apply to the Opening UFB asset base value.</p>																

2.3.4	We consider that this clause should refer to tax/IRD depreciation, not GAAP. Sub-clause (1) uses GAAP depreciation but model uses tax depreciation. Additionally, and in line with our proposal above under clause 2.3.1, a simpler and more appropriate approach is to replace the reference to regulatory tax calculation with a formula.	$\text{Regulatory taxable income}_{\text{UFB}} = \text{Revenue (ignoring revaluation gains)}_{\text{UFB}} - \text{Notional interest}_{\text{UFB}} - \text{Tax Depreciation}_{\text{UFB}} - \text{Opex}_{\text{UFB}}$
2.3.4(3)	This clause prescribes the “adjusted UFB initial asset values” for financial year 2012 to be “nil”. The “Opening UFB asset base value” for financial year 2012 will not be “nil”, as it will include the pre-demerger assets.	We consider it more accurate and appropriate to describe the “adjustment to the Opening UFB asset base value” to be “nil”.
2.3.4(5)	This clause appears to go beyond what the Commission has foreshadowed and lacks clarity around what it is trying to achieve. This is because an adjustment is proposed that assumes that if the accumulated loss had been recognised as an asset under GAAP, then either impairments or depreciation that Chorus implemented for accounting purposes may have been different. An adjustment seems then to be required to raise the asset base that would give rise to notional deductible interest by the amount of this difference. However the loss asset would already be higher as a consequence of impairments and would fully reflect actual accounting depreciation, and so this would seem to amount to double counting. Additionally, in any event, the drafting of the clause relating to this adjustment is very opaque and goes beyond anything that was proposed in the draft decision. We recommend removing this adjustment from the formula. There is also a minor error where, to derive the closing balance of the loss, the opening balance should be escalated by one year of WACC.	Remove adjustment.
Cost of capital		
2.4.1(4)	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.

2.4.2(4)	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
2.4.4(1)(b)	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
2.4.4	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
2.4.8(4)	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
2.4.10-2.4.13	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
2.4.10	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
2.4.11	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
2.4.12(1)	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
2.4.13	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
Quality Dimensions		
2.5.1(1)	As currently drafted, the Commission can set measures for ‘one or more of’ availability and performance. This drafting is different from the PQ section (clause 3.5.1(1)) which provides the Commission must set standards for both	2.5.1 Mandatory quality dimensions (1) In setting information relating to quality that a regulated provider is required to disclose in relation to a regulated FFLAS in an ID determination, the Commission must specify quality performance measures and statistics for one or more of the following quality dimensions:

	<p>availability and performance. This appears to be an error, and the clauses should be consistent. We propose deleting the words 'one or more of' from 2.5.1(1) to align the drafting with clause 3.5.1(1).</p> <p>In addition, we have suggested amending the definitions of the quality dimensions (such as, availability and performance) so that the quality dimensions are not defined in relation to regulated FFLAS but rather are defined more generally. (For example, see definition of "availability" above.)</p> <p>Accordingly, we have made a consequential change to clause 2.5.1(1) to make it clear that the mandatory quality dimensions only apply in respect of regulated FFLAS.</p> <p>In addition, as currently drafted, it is unclear whether the list of metrics under each quality dimension is exhaustive or merely a list of example metrics. This ambiguity creates uncertainty. We consider that the metrics listed in the IM should be exhaustive and have suggested an amendment to clause 2.5.1 to clarify this. Note that this amendment is also required for clause 2.5.2 (and clauses 3.5.1 and 3.5.2, as set out below).</p>	<p>(a) availability, as measured by one or more of the following metrics:</p> <ul style="list-style-type: none"> (i) maximum downtime; (ii) average downtime; and (iii) notification to access seekers of outages; and <p>(b) performance, as measured by one or more of the following metrics:</p> <ul style="list-style-type: none"> (i) frame delay; (ii) frame loss; (iii) frame delay variation; and (iv) port utilisation.
2.5.2(1)	<p>We have suggested amending the definitions of the quality dimensions (such as ordering, provisioning and switching) so that the quality dimensions are not defined in relation to regulated FFLAS but rather are defined more generally. (For example, see definition of "switching" above).</p> <p>Accordingly we suggest a consequential change to clause 2.5.2(1) to make it clear that the mandatory quality dimensions only apply in respect of regulated FFLAS.</p>	<p>2.5.2 Optional quality dimensions</p> <p>(1) The Commission may also specify quality performance measures and statistics in relation to a regulated FFLAS for one or more of the following quality dimensions...</p>
2.5.3(2)(d)	<p>This clause permits the Commission to set different quality reporting requirements based on different end-users.</p> <p>We have no visibility of the end-users of our services so it's not possible for us to report on that basis. Accordingly, we suggest that this sub-clause is deleted.</p>	<p>(2) The Commission may also set different quality reporting requirements with reference to:</p> <ul style="list-style-type: none"> (a) geography; (b) fibre network architecture; and (c) regulated FFLAS, such as layer 1 and layer 2. and (d) end-users, such as rural, urban, business or residential.
[2.5.4]	<p>The Commission has referred to principles that should guide quality standards and measures. As proposed in our submission, the IM should include quality principles. (This also affects clause 3.5.4 as discussed below.)</p>	<p>We propose a new clause 2.5.4 as follows:</p> <p>2.5.4 Mandatory considerations for specifying quality performance measures and statistics</p>

		<p>(1) In specifying information relating to quality that a regulated provider is required to disclose in an ID determination, the Commission must ensure that quality performance measures and statistics:</p> <ul style="list-style-type: none"> (a) are relevant to end-user demands regarding service quality; (b) are able to be accurately measured by the regulated provider; (c) are within the control of the regulated provider; (d) are proportionate, in that the costs to the regulated provider of disclosing the information is justified by the benefits to end-users. <p>(2) In specifying information relating to quality that a regulated provider is required to disclose in an ID determination, the Commission must, in addition to the matters in subclause (1), have regard to all obligations to which the regulated provider is subject, whether under the Act or any other instrument, that are relevant to the quality of service provided by the regulated provider.</p>
PART 3: IMs for Price Quality Paths		
Cost allocation		
[IM to reflect Commission assessment of allocators]	The Commission has outlined in paragraph 3.429 of its Reasons Paper the actions it would propose to take if it disagrees with the selection of allocators. Nothing in the IMs specifically addresses this issue, so the precise nature of the scrutiny that the Commission will apply, and the consequences of disagreeing with Chorus' chosen allocators is difficult to assess.	We ask that the Commission provide further detail on this issue.
3.1.1(6)	<p>This clause implies that sub-clauses (2) and (3) refer to "requirements in the relevant ID determination" but those sub-clauses do not use that phrase. As a consequence, this subclause appears to suggest that the Commission can specify any requirement in relation to cost allocation for the purposes of calculating PQ forecast values.</p> <p>That is likely not what was intended, so we ask the Commission to explain what is intended by this subclause and clarify the drafting.</p>	
Asset Valuation		
3.2.3	This clause gives effect to section 197 of the Act, but in doing so it does not include any detail of how the required process and timeframes would work.	We propose that the Commission add an IM specifying how this will work in practice, having regard to other relevant pricing related timeframes and requirements.

	It is important that, at a minimum, there is certainty around how any price changes as a consequence of Commission altered depreciation will be workable within a regulated framework and cater for any price change and / or implementation requirements.	
Taxation [no issues]		
Cost of Capital		
3.2.5	As discussed in our submission, we support the Commission's proposal to adopt an ex-ante allowance for the risk of asset stranding. However we consider that the formula to calculate the allowance would run the risk of locking in errors if it used fixed parameters. We consider a more appropriate approach would be to reassess the ex-ante allowance as part of the PQD for each RP. We have proposed an alternative formula that reflects this.	A x B Where – (a) 'A' is a the value weighted ex-ante allowance , calculated using the formula $A = \sum_{i=0}^n \frac{1}{w_i} A^i$ where – (i) 'A ⁱ ' is the stranding premium applicable to asset category I; (ii) 'w ⁱ ' is asset category i's value weighting in the RAB, calculated using the opening values as at implementation; (iii) 'n' is the number of asset categories used for the purposes of calculating the overall ex-ante allowance for asset stranding; and
3.4.1(4)	As discussed in our submission, we support Sapere's proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere's proposed changes to the draft IM Determination.
3.4.2	As discussed in our submission, we support Sapere's proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere's proposed changes to the draft IM Determination.
3.4.4(4)	As discussed in our submission, we support Sapere's proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere's proposed changes to the draft IM Determination.
3.4.5	As discussed in our submission, we support Sapere's proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere's proposed changes to the draft IM Determination.
3.4.7(1) and (2)	As discussed in our submission, we support Sapere's proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere's proposed changes to the draft IM Determination.
3.4.7(2)	There is no clause 3.4.10(3), the correct reference appears to be 3.4.10(1).	Amend reference clause accordingly.

3.4.7(3) and (4)	It is unclear if sub-clause (3) should be the disclosure year or regulatory year. We also consider that 3.4.7(4) may be more appropriate under Part 2 ID e.g. under clause 2.4.8(5) (as Sapere suggests).	We suggest the Commission clarify and amend as necessary.
3.4.10(2)	As discussed in our submission, we support Sapere’s proposed changes related to the cost of capital IM and recommend the Commission adopts the necessary drafting to implement it.	See Sapere’s proposed changes to the draft IM Determination.
Quality dimensions		
3.5.1(1)	<p>We have suggested amending the definitions of the quality dimensions (such as availability and performance) so that the quality dimensions are not defined in relation to regulated FFLAS but rather are defined more generally. (For example, see definition of “availability” above.)</p> <p>Accordingly, we have made a consequential change to clause 3.5.1(1) to make it clear that the mandatory quality dimensions only apply in respect of regulated FFLAS.</p>	<p>3.5.1 Mandatory quality dimensions</p> <p>(1) In specifying quality standards in relation to a regulated FFLAS for a PQ determination, the Commission must specify quality standards for the following quality dimensions:</p> <p>(a) availability, as measured by one or more of the following metrics:</p> <ul style="list-style-type: none"> (i) maximum downtime; (ii) average downtime; and (iii) notification to access seekers of outages; and <p>(b) performance, as measured by one or more of the following metrics:</p> <ul style="list-style-type: none"> (i) frame delay; (ii) frame loss; (iii) frame delay variation; and (iv) port utilisation.
3.5.2(1)	<p>The metrics included under the dimension of customer service for PQ include end-user connection satisfaction.</p> <p>As described in our submission (“Quality Dimensions IM” section), this is not appropriate for a compliance standard.</p> <p>We suggest amending the definitions of the quality dimensions (such as ordering, provisioning and switching) so that the quality dimensions are not defined in relation to regulated FFLAS but rather are defined more generally. (For example, see definition of “switching” above).</p> <p>Accordingly, we have made a consequential change to clause 3.5.2(1) to make it clear that the mandatory quality dimensions only apply in respect of regulated FFLAS.</p>	<p>3.5.2 Optional quality dimensions</p> <p>(1) The Commission may also specify quality standards in relation to a regulated FFLAS for one or more of the following quality dimensions:</p> <ul style="list-style-type: none"> (a) ordering, as measured by the time to accept or reject a request; (b) provisioning, as measured by the time to provision regulated FFLAS; (c) switching, as measured by one or more of the following metrics: <ul style="list-style-type: none"> (i) the time to disconnect regulated FFLAS from a losing access seeker and connect to a gaining access seeker; and (ii) the time to disconnect from one type of regulated FFLAS and connect to another; (d) faults, as measured by one or more of the following metrics: <ul style="list-style-type: none"> (i) incidence of faults, where “incidence of faults” is defined in an ID determination or PQ determination; and (ii) time to restore regulated FFLAS; and (e) customer service, as measured by one or more of the following metrics:

	<p>In addition, we suggest removing the quality dimension for customer service of “end-user connection satisfaction.” While this is appropriate for a measure under ID regulation, we do not consider it to be appropriate as a compliance standard for PQ regulation as there are a number of factors outside of Chorus’ control that impact end-user connection satisfaction.</p> <p>Finally, we have suggested minor drafting changes to sub-clauses (e)(ii) and (e)(iii) to refer to an ID determination as well as a PQ determination, so that those sub-clauses are consistent with sub-clause (d)(i), where ‘ID determination’ is referenced.</p>	<p>(i) missed appointments, where “missed appointments” is defined in an ID determination or PQ determination; and</p> <p>(ii) the time to establish an access seeker, where “time to establish an access seeker” is defined in an ID determination PQ determination.</p>
3.5.1, 3.5.2	<p>As currently drafted, it is unclear whether the list of metrics under each quality dimension is exhaustive or merely a list of example metrics. This ambiguity creates uncertainty. We consider that the metrics listed in the IM should be exhaustive and have suggested an amendment to clause 3.5.1 to clarify this. Note that this amendment is also required for clause 3.5.2.</p>	<p>3.5.1 Mandatory quality dimensions</p> <p>(1) In specifying quality standards in relation to a regulated FFLAS for a PQ determination, the Commission must specify quality standards for the following quality dimensions:</p> <p>(a) availability, as measured by one or more of the following metrics:</p> <p>(i) maximum downtime;</p> <p>(ii) average downtime; and</p> <p>(iii) notification to access seekers of outages; and</p> <p>(b) performance, as measured by one or more of the following metrics:</p> <p>(i) frame delay;</p> <p>(ii) frame loss;</p> <p>(iii) frame delay variation; and</p> <p>(iv) port utilisation.</p>
3.5.3(2)(d)	<p>This clause permits the Commission to set different standards based on different end-users. We have no visibility of the end-users of our services, meaning that it is not possible for us to report differently on that basis.</p>	<p>Delete this provision.</p>
[3.5.4]	<p>As noted in our submission, the IM should include quality principles.</p>	<p>We propose inserting a new clause 3.5.4 as follows:</p> <p>3.5.4 Mandatory considerations for specifying quality standards</p> <p>(1) In specifying the quality standards that a regulated provider must meet in a PQ determination, the Commission must ensure that quality standards:</p> <p>(a) are relevant to end-user demands regarding service quality;</p> <p>(b) are able to be accurately measured by the regulated provider;</p> <p>(c) are within the control of the regulated provider;</p>

		<p>(d) are achievable within the expenditure approved by the Commission in relation to a regulatory period;</p> <p>(e) are proportionate, in that the costs to the regulated provider of complying with the quality standards are justified by the benefits to end-users; and</p> <p>(f) do not unduly constrain the regulated provider’s ability to offer differentiated services at varying prices reflecting Access Seeker or end-user demands.</p> <p>(2) In specifying the quality standards that a regulated provider must meet in a PQ determination, the Commission must, in addition to the matters in subclause (1), have regard to all obligations to which the regulated provider is subject, whether under the Act or any other instrument, that are relevant to the quality of service provided by the regulated provider.</p>
Capital expenditure		
3.6.1 Overview of Capex Note: This clause is only a guide to the general scheme and effect of this subpart	This clause includes a note that it is only a guide to the general scheme and effect of this subpart. However, unlike similar sections in legislation, this clause is framed as an operative provision that creates actual obligations. E.g. “the Commission must...”.	To the extent that this clause simply restates obligations set out elsewhere in the subpart we suggest deleting it. If the Commission think it is important to summarise the subpart then the summary should not be framed as an operative provision.
3.6.1(1)(b)	As currently drafted, clause 3.6.1 envisages that connection capex proposals are made as separate applications distinct from base capex proposals. However, a significant proportion of the material in a connection capex proposal would be integrated into the documents in a base capex proposal (such as forecasts, procurement, governance, investment, etc). The Commission’s approach also assumes that connection and base capex are entirely discrete categories, and they are not. Accordingly, we consider that a single proposal for both base and connection capex would be more coherent than separate proposals.	<p>We suggest that a new clause is added between clauses 3.6.13 and 3.6.14 providing that:</p> <p>Chorus may submit one capex proposal that includes both a connection capex baseline proposal and a base capex proposal as long as the capex proposal:</p> <p>(a) separately identifies the relevant capex that is subject to the connection capex baseline proposal and the base capex proposal; and</p> <p>(b) provides sufficient information to enable the Commission to evaluate the base capex proposal and connection capex baseline proposal in accordance with Subpart 7.</p> <p>This will require consequential changes elsewhere in the capex IM. If the Commission accepts our submission we would be happy to provide a more detailed mark-up.</p>
3.6.20	As we discuss in the Capex section of our submission (under the heading “Connection capex adjustment”), we think the connection capex adjustment should be an adjustment to the main base capex allowance.	We recommend amending clause 3.6.20 to provide that the connection capex adjustment is applied to the base capex allowance. This will presumably require consequential changes in the Rules and Processes IM, which is still in the process of being prepared.

3.6.1(2)(b)	The reference to submitting “individual capex proposals for a regulatory period” is confusing. We suggest a minor amendment to clarify that individual capex proposals are not correlated to regulatory periods, as individual capex proposals may be made at any time during a regulatory period.	(2) Chorus will submit one or more capex proposals to the Commission as follows: (a) Chorus must submit a base capex proposal and a connection capex baseline proposal for a regulatory period before the start of that regulatory period; and (b) Chorus may submit one or more individual capex proposals at any time during a regulatory period.
3.6.1(4)	It is not yet clear how “maximum revenues” and “building block allowable revenue” will be used in the PQ determination. We are unclear on what the term “maximum revenue” adds - if this is intended to cover the maximum (allowable) revenue, why is the term MAR not used? It is also unclear what the difference is between “maximum revenues” and BBAR.	We are unable at this stage (ahead of the Rules and Processes IM and the PQ determination) to suggest any changes. Depending how the terms are used in the PQ determination, we may seek clarification or change.
3.6.3(1)(b)	The proposed direction certification process for capex proposals contains a certification requirement – certifying that information provided is true and correct – that is over and above the certification requirements applying to Transpower. The Commission provides no rationale for the additional clause, which may unintentionally complicate the certification process. Terms carry specific meaning to assurance practitioners based on other assurance standards, so a small change can have implications to assurance procedures. The additional requirement should be deleted.	Delete clause 3.6.3(1)(b).
3.6.6	Minor drafting point: this clause includes reference to “performance”. That term is defined, so should be in bold text.	Bold text for “performance”.
3.6.6(1)(e)	It is impracticable for the investment report to have to go down to asset level. As discussed in the Capex section of our submission (under the heading “Integrated Fibre Plan”), it is appropriate for some investment areas (e.g. lifecycle investment in physical assets) but not others. For example, network electronics, network expansion and IT are better broken down by activity (e.g. connections or extensions) or by outcomes (moving data).	(e) Investment report: a report on the asset portfolios, and investment plans for the next five regulatory years , including risks and linkages to the forecast expenditure for the regulatory period.
3.6.7(8)	As currently drafted, Chorus must provide a breakdown of its capital expenditure by three geographical locations: Chorus UFB, non-UFB (rural) and non-UFB (LFC). However, we are only subject to PQ regulation in relation to UFB areas, so these distinctions are redundant. Further, while UFB has been a key construct during the financing and primary build phase of our fibre network, the	We suggest that this sub-clause is removed from the draft IM Determination and that this is instead addressed in the regulatory templates under clause 3.6.7(4) and 3.6.13(4).

	<p>proposed sub-categories are likely to be less relevant as time goes on and carrying these categories forward into PQ or ID regulation would not contribute to enduring rules.</p> <p>As we discuss in the capex section of our submission (under the heading “Presenting an enduring FFLAS view of expenditure”), we think that providing FFLAS information would avoid locking in legacy UFB constructs that will lose relevance as the network expands, and ensure future-looking constructs are embedded in the PQ and ID processes.</p>	
3.6.7(9)	Minor drafting point: this clause includes reference to “cost allocator”. That term is defined, so should be in bold text.	Bold text for “cost allocator”.
(new) 3.6.7(11)	We propose the capex IM requires the Commission to seek feedback from Chorus on any draft information notice ahead of each regulatory period, at least two months before the deadline for finalising the notice. This would enhance predictability and support efficient preparation of the PQ proposal.	<p>Insert as new clause 3.6.7(11):</p> <p>At least two months prior to issuing a base capex information request to Chorus in accordance with clause 3.6.7(11), the Commission must seek feedback from Chorus on a connection capex information request.</p>
3.6.8(1)(e)	As discussed in the capex section of our submission (under the heading “Financial information requirements”), the proposed requirement that relevant financial information include evidence of efficiency improvements in proposed expenditure is unduly broad (being across all input costs). We suggest the Commission limits this requirement to ‘key input costs’.	<p>3.6.8 Base capex information request - information requirements</p> <p>(1) To the extent the Commission considers it relevant, the base capex information request may, without limitation, require information relating to any or all of the following areas:</p> <ul style="list-style-type: none"> (a) governance relating to proposed capital expenditure; (b) historic capital expenditure; (c) approach to forecasting capital expenditure; (d) procurement, resourcing and deliverability; (e) relevant financial information including evidence of efficiency improvements in proposed expenditure for key input costs identified in the base capex proposal; (f) fibre asset and fibre network information; (g) competition effects, including specific information for base capex sub-categories that have potential impacts on competition in regulated FFLAS and other telecommunications markets; (h) common costs and benefits with services that are not regulated FFLAS; (i) linkages between capex and quality; and (j) the extent of consultation by Chorus with its access seekers and end-users.
3.6.11(3)	As discussed in the Capex section of our submission under the heading “Shifting base capex to individual capex should be used cautiously”, the right of the Commission to determine	(3) The Commission may propose that capital expenditure proposed within a base capex proposal should be proposed within an individual capex proposal.

	<p>whether any proposed base capex should be separated out into an individual capex proposal should be limited.</p> <p>We suggest the addition of the words “the Commission and Chorus use reasonable endeavours to agree”, and reference to being used in exceptional cases. We also suggest a requirement on the Commission to consider the impact on base capex uncertainty from removing individual capex.</p>	<p>(4) The Commission and Chorus must use reasonable endeavours to agree whether capital expenditure proposed within a base capex proposal should be proposed within an individual capex proposal.</p> <p>(5) If no agreement is reached under subclause (4), the Commission may, in exceptional circumstances, determine that capital expenditure proposed within a base capex proposal should be proposed within an individual capex proposal if the Commission considers the proposed capital expenditure:</p> <p>(a) is uncertain at the time Chorus submits the base capex proposal; and</p> <p>(b) is the type of capital expenditure that should be restricted to a particular project or programme rather than being substitutable between base capex sub-categories</p> <p>(6) If the Commission makes a determination in accordance with subclause (35), Chorus may submit an individual capex proposal for that capital expenditure in accordance with the staged application process specified in clause 3.6.21-3.6.26.</p>
3.6.12(1)(b)	<p>The connection capex variable adjustment should be determined annually instead of at the end of the regulatory period. If the adjustment was made at the end of the regulatory period then Chorus would already be in RP2, by which time the RP2 MAR would have been set. By making the adjustment annual, the adjustments relating to the first two disclosure years of RP1 could be used for the RP2 forecast MAR.</p> <p>We note that provision may need to be made for a catch up after end of third year, as by that stage we’ll be in RP2 – that would need to happen before Chorus enters the first year of RP2.</p>	<p>3.6.12 General rules for connection capex allowances</p> <p>(1) The Commission will determine two components for the connection capex allowance as follows:</p> <p>(a) a connection capex baseline allowance prior to the regulatory period in accordance with clause 3.6.19; and</p> <p>(b) a connection capex variable adjustment for each disclosure year in accordance with clause 3.6.20.</p>
(new) 3.6.13(9)	<p>We propose the capex IM requires the Commission to seek feedback from Chorus on any draft information notice ahead of each regulatory period, at least two months before the deadline for finalising the notice. This would enhance predictability and support efficient preparation of the PQ proposal.</p>	<p>Insert as new clause 3.6.13(9):</p> <p>At least two months prior to issuing a base capex information request to Chorus in accordance with clause 3.6.13(8), the Commission must seek feedback from Chorus on a draft connection capex information request.</p>
3.6.14(1)(e)	<p>As for clause 3.6.8(1)(e) in relation to base capex information requirements, a connection capex information request may require “relevant financial information including evidence of efficiency improvements in proposed expenditure.” Similarly as for that clause above, we propose limiting that to information relating to key input costs.</p>	<p>3.6.14 Connection capex information request - information requirements</p> <p>(1) To the extent the Commission considers it relevant, the connection capex information request may, without limitation, require information relating to any or all of the following areas:</p> <p>(a) governance relating to proposed capital expenditure;</p> <p>(b) historic capital expenditure;</p> <p>(c) approach to forecasting capital expenditure;</p>

		<p>(d) procurement, resourcing and deliverability;</p> <p>(e) relevant financial information including evidence of efficiency improvements in proposed expenditure for key input costs identified in the connection capex baseline proposal;</p> <p>(f) asset and network information;</p> <p>(g) competition effects, including specific information for capital expenditure that may have potential impacts on competition in regulated FFLAS and other telecommunications markets;</p> <p>(h) common costs and benefits with services that are not regulated FFLAS;</p> <p>(i) linkages between capex and quality; and</p> <p>(j) the extent of consultation by Chorus with its access seekers and end-users.</p>
3.6.17(1)	<p>“Regulatory year” has been used twice whereas in this context it should be “disclosure year”. For alignment with our financial information and systems, ‘disclosure year’ should be the relevant period and should align with our financial year. Accordingly, “disclosure year” should align with Chorus’ financial year (1 July – 30 June).</p>	<p>3.6.17(1) – Chorus must provide a connection capex annual report for each disclosure year of a regulatory period to the Commission no later than 3 months after the end of each disclosure year of the regulatory period.</p>
3.6.17(2)(c)	<p>It is unclear what “updates” refer to and how they might work. We assume the Commission is referring to actual ex post unit costs (rather than any update to the connection unit costs agreed in cl 3.6.13(c)). The Commission doesn’t (and therefore the draft IMs don’t) envisage an update to the unit costs themselves. If our assumption is wrong, we would require some clarification.</p>	
3.6.20	<p>As we discuss in the Capex section of our submission (under the heading “Connection capex adjustment”), we think the connection capex adjustment should be an adjustment to the main base capex allowance.</p> <p>We recommend amending clause 3.6.20 to provide that the connection capex adjustment is applied to the base capex allowance. This will presumably require consequential changes in the Rules and Processes IM, which is still in the process of being prepared.</p>	<p>3.6.20 The connection capex variable adjustment</p> <p>(1) A connection capex variable adjustment will be determined at the end of each disclosure year.</p> <p>(2) The connection capex variable adjustment will be the difference between:</p> <p>(a) the connection capex baseline allowance for the disclosure year which is based on forecast connection volumes; and</p> <p>(b) a capital expenditure amount that is based on actual connection volumes by connection type for the disclosure year multiplied by the connection unit rates used in determining the connection capex baseline allowance for that connection type.</p>
3.6.21(1)	<p>Individual capex proposals should not be defined as relating to a regulatory period, as Chorus should be able to make an individual capex proposal at any time, unconstrained by the</p>	<p>3.6.21 Overview of individual capex proposal process and timeframes</p> <p>(1) Chorus may apply to the Commission to determine an additional capex allowance at any time during or prior to a regulatory period by submitting an</p>

	parameters of a particular regulatory period. This contrasts with the position for base capex, for which an allowance is set <i>for</i> a regulatory period and relates to the MAR set for that period.	individual capex proposal in accordance with the staged application process specified in subclause (4).
3.6.21(3)	As noted in our submission, the individual capex mechanism would be improved by making ring-fencing an optional feature rather than a requirement. Ring-fencing for individual capex could be problematic where the proposal is for a particular outcome or output (rather than a particular asset) or where the investment involves modifying a stream of investment in multiple assets. Accordingly, we recommend that the Commission should have a discretion as to whether or not to ring-fence the expenditure. We have suggested amends to this clause to address this.	<p>(3) The individual capex proposal must meet the following requirements:</p> <p>(a) the proposed capital expenditure must relate to one or more base capex sub-categories included in the base capex proposal for that regulatory period;</p> <p>(b) the proposed individual capex must relate to a project or programme, where the forecast capital expenditure for regulated FFLAS on that project or programme amounts to at least \$5 million;</p> <p>(c) the individual capex proposal is needed because at the time when the base capex proposal for that regulatory period was submitted to the Commission, either:</p> <p>(i) it would have been unreasonable to expect Chorus to accurately forecast the capital expenditure, or timing of, that project or programme; or</p> <p>(ii) the Commission determined that capital expenditure proposed within the base capex proposal should instead be proposed within an individual capex proposal in accordance with clause 3.6.11(3); and</p> <p>(d) the proposed individual capex must be additional to the base capex allowance; and</p> <p>(e) the proposed individual capex must only be used for the individual capex project or individual capex programme unless the Commission agrees that the individual capex may be treated as substitutable with the base capex allowance.</p>
3.7.6(1)	Clause 3.7.6(1) sets out a long list of assessment factors that the Commission must consider, to the extent the Commission considers it relevant, when evaluating a capex proposal. We ask that the Commission confirms that it will apply the principle of proportionate scrutiny when evaluating a capex proposal under subpart 7, as the Commission has done in other contexts when reviewing investment proposals.	