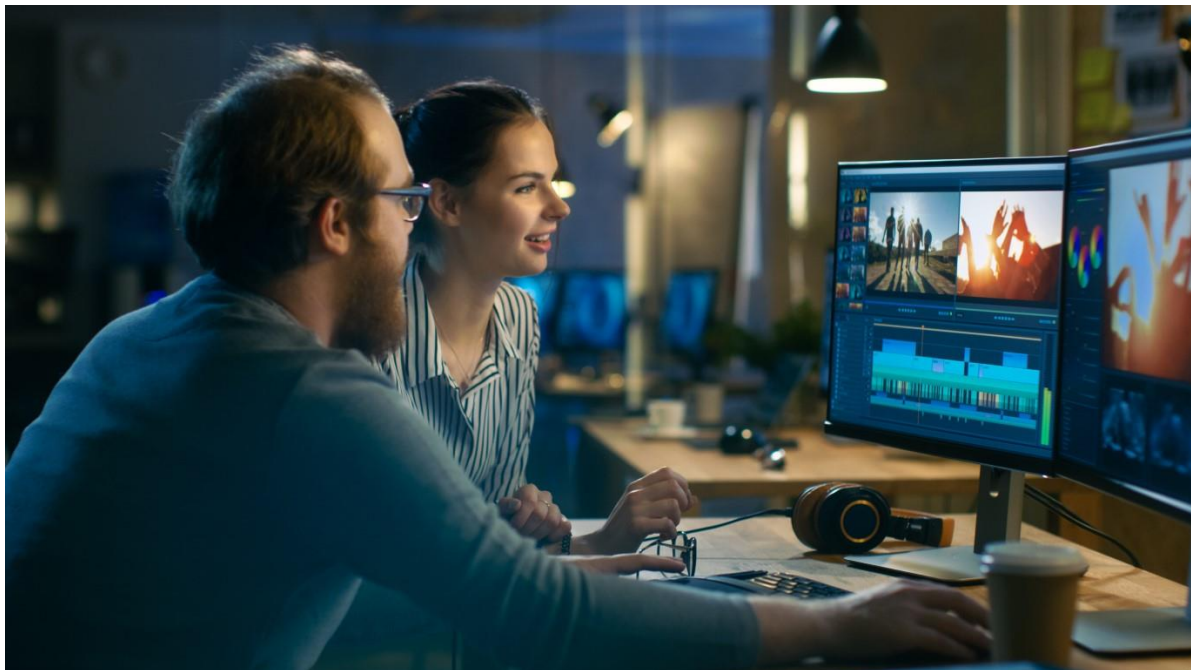


Chorus supplementary submission on the Commerce Commission's fibre input methodologies – further consultation draft reasons paper

28 August 2020



OVERVIEW

1. This is a supplementary submission on the Commerce Commission's (**Commission**) fibre input methodologies further consultation draft - reasons paper (**Revised Paper**) dated 23 July 2020, in response to points of clarification raised by the Commission on:
 - 1.1. The Commission's proposed two-step approach to cost allocation; and
 - 1.2. Non-linear connections capex costs.
2. We provide proposed drafting for a one-step allocation process in the attached **Appendix**.
3. We support the Commission's proposed alternative option to address non-linear connections costs in the draft capex input methodology (**IM**). We also provide proposed drafting to support the Commission's alternative option in the attached **Appendix**.
4. We have identified some non-linear connections capex and will include that in our proposal for the first regulatory period (**RP1**). However, we consider that enduring IMs should not presuppose non-linear connection capex costs can be identified or forecast in the future and so the drafting should make the inclusion of these costs optional.

TWO-STEP COST ALLOCATION PROCESS

5. In our submission on the Revised Paper, we gave our view that there isn't any need for the Commission to prescribe a two-step allocation process that requires:
 - 5.1. Costs to be allocated between fibre fixed-line access services (**FFLAS**) and non-FFLAS; then
 - 5.2. FFLAS costs to be allocated between information-disclosure (**ID**)-only FFLAS and price-quality (**PQ**) FFLAS.
6. We agree that it is necessary to allocate costs between FFLAS classes but are concerned with the potential modelling implications of the proposed two-step approach, driving unnecessary costs and complexity that are passed on to consumers in return for little or no benefit, and puts timeframes at risk.¹ Accordingly, we propose drafting for a single step allocation approach, which drives the same allocation outcomes. Overall, we consider that it is a simpler way of achieving the Commission's objective of a transparent approach to cost allocation.
7. Our proposed approach achieves this by:
 - 7.1. Providing separately for cost allocation for suppliers subject to ID and PQ regulation (new clause 2.1.1) and for suppliers subject only to ID (new clause 2.1.2). Each of our proposed new clauses incorporates the operative provisions from the Commission's clauses 2.1.1 and 2.1.2, which deal with allocation between regulated FFLAS and services that are not regulated

¹ Chorus (13 August 2020) *Submission on Fibre Input Methodologies further consultation draft reasons paper*, at [56].

FFLAS, but combines those provisions with a requirement to allocate between FFLAS classes (as relevant to the manner of regulation in each case).

7.2. The consequence is that:

7.2.1. For suppliers subject to ID and PQ regulation, new clause 2.1.1 provides for allocation of costs/assets that are not directly attributable between PQ FFLAS, ID-only FFLAS, any additional FFLAS class specified by the Commission, and services that are not regulated FFLAS; and

7.2.2. For suppliers subject to ID regulation only, new clause 2.1.2 provides for allocation of costs/assets that are not directly attributable between ID FFLAS, any additional FFLAS class specified by the Commission, and services that are not regulated FFLAS.

8. We have set out the drafting we think is required to give effect to a single-step approach to allocation in the ID IMs, by accepting the Commission's mark-ups and marking up our proposal. We have not prepared equivalent drafting for the PQ IMs on the basis that the drafting can readily be adapted with the necessary contextual modifications to the PQ IMs.

NON-LINEAR CONNECTIONS CAPEX COSTS

9. We welcome the Commission's addition of a non-linear cost category in the composition of connections capex.

10. We have identified some non-linear connections capex for RP1, which will be included in our RP1 proposal. However we consider that enduring IMs should not presuppose that non-linear connection capex costs can always be identified or forecast and so the drafting should make the inclusion of these costs optional.

Draft decision to ring-fence capex

11. The Commission's draft decision was to ring-fence connection capex and base capex, and to apply the connection capex adjustment to the ring-fenced connection capex allowance.

12. In our submissions on the draft decision we explained that connection capex and base capex – as defined in the draft IMs – are not necessarily discrete categories as there is a range of costs that will vary with connection volumes but are not closely linked to connection activity.² It is not straightforward to divide all of Chorus' costs into connection capex and base capex in the manner suggested by the Commission.

13. We therefore proposed applying the connection capex adjustment as an adjustment to base capex, recognising this practical reality, and to enable us to manage the residual volume and cost risks within a single fungible base capex pool.

² Chorus (28 July 2020) *Submission on Fibre Input Methodologies draft decision*, at [354-366].

Revised draft decision to include non-linear connection costs

14. The Commission has proposed, in its further draft consultation, to expand the definition of connection capex in order to capture costs that vary non-linearly with connection volume. This would require Chorus to separately specify those non-linear costs in our initial forecast of connection capex unit costs. As we understand it, the intended effect of the Commission's revised approach is that *all* costs that vary with connection volumes may be included in connection capex, including shared overheads.³
15. We continue to prefer our original proposal that the connection capex adjustment is applied to the base capex allowance. However, given the Commission's decision to maintain non-substitutability of base and connection capex, we prefer the Commission's alternative proposal to permit Chorus flexibility regarding which non-linear costs to include in connection versus base capex because:
 - 15.1. Comprehensively identifying the cost function for every cost that varies non-linearly with demand will be impractical and disproportionate; and
 - 15.2. While we have identified some non-linear connection costs for RP1, we do not expect that will necessarily be the case for future regulatory periods.
16. The IMs for calculating the connection capex variable adjustment do not fully reflect the inclusion of non-linear connection costs and therefore require a further minor amendment, which we have proposed.

Implementing the Commission's alternative approach

17. Non-linear costs can be described as falling into two broad categories. One category is those costs which have reasonably well-defined parameters, enabling the non-linearity to be modelled and forecast. We have identified such an example in our forecasts, since the Commission published the further revision to the draft capex IM. In this case the modelled average unit cost reduces with increasing numbers of connections.
18. We are able to provide the details of this non-linear cost behaviour in such a way that can be applied to the connections capex variable adjustment. This would benefit both Chorus, because higher connection numbers will result in a positive connections capex variable adjustment, and also consumers, because the reducing unit cost would be reflected in the adjustment. It is therefore appropriate these non-linear costs are included in the connections capex forecast.
19. The other category of non-linear costs is those whose non-linearity cannot reasonably be forecast. That is because the range of parameters is too wide for forecasts of the non-linearity to be meaningful. As a practical matter, we would be unable to, with any confidence, separately specify the cost function for these costs if we were required to include them in our forecast of connection capex unit costs (as the current draft IMs would require).
20. We would therefore prefer to include forecasts of these costs in our base capex. As with all forecast costs, the forecast of these costs would assume our central forecast of connection volumes. That doesn't mean that they are forecast on a per

³ See Commerce Commission (23 July 2020) *Fibre input methodologies – further consultation draft - reasons paper*, at [3.203].

connection basis, just that they are forecast to be consistent with our central connections forecast.

21. Examples might include capitalised customer operations costs, and IT systems that support connection activities. If the actual level of connections were significantly higher, then there would be additional costs, but those would depend on the situation prevailing at the time and could not be easily forecast now. This is the only practical method for forecasting these costs and is consistent with the Commission's customary forecasting methods.
22. In addition, while we have determined the cost function of certain non-linear connection costs for RP1, we do not necessarily expect to identify non-linear connection costs for future regulatory periods.
23. As presently drafted, the revised definitions of connection capex imply that *all* costs that vary with connection volumes must be included in the forecast of connection capex unit costs, with non-linear costs separately specified.
24. We welcome the option to include non-linear costs in connection capex, but given we are unable to confidently specify the cost function for all costs that vary non-linearly with demand, we prefer the Commission's proposed alternative, which would allow Chorus the flexibility to propose whether to include these non-linear connection costs in connection capex or base capex. This would also allow Chorus and the Commission to pragmatically determine on a case-by-case basis which costs are most appropriately managed through the connection capex adjustment process and which are better suited to the base capex forecast.
25. We have proposed drafting amendments in the Appendix to achieve this.

No risk of double recovery

26. A key concern raised by the Commission and reflected in the drafting is that Chorus should not double recover costs in both base capex and connections capex. Our approach to base capex is that it is equal to total capex minus connections capex.
27. Both components align with a consistent central estimate of connection volumes, so there is no risk of double recovery. Our regulatory templates make this clear by explicitly deducting connections capex from total capex to arrive at the amount of base capex.

Connection capex variable adjustment

28. The key feature of non-linear costs is that they do not vary in a linear way with the number of end-user connections. As such, for the connection capex variable adjustment to work correctly, for example using reduced unit costs with increased connections, some drafting changes are needed, as set out in the Appendix.

APPENDIX

Proposed drafting to provide for a one-step cost allocation process

PART 2 INPUT METHODOLOGIES FOR INFORMATION DISCLOSURE

~~2.1.1—Allocation between regulated FFLAS and services that are not regulated FFLAS~~

~~(1)—Any—~~

- ~~(a)—operating costs; and~~
- ~~(b)—asset values;~~

~~that are directly attributable to the provision of regulated FFLAS by the regulated provider must be allocated to regulated FFLAS.~~

~~(2)—The following must not be allocated to regulated FFLAS:~~

- ~~(a)—any operating cost that is directly attributable to the provision of services that are not regulated FFLAS;~~
- ~~(b)—any asset value that is directly attributable to the provision of services that are not regulated FFLAS; or~~
- ~~(c)—any other cost that is recovered in respect of a Part 4 regulated service.~~

~~(3)—ABAA must be applied in accordance with clause 2.1.2 when any of the following are allocated:~~

- ~~(a)—operating costs that are not directly attributable to regulated FFLAS or services that are not regulated FFLAS; and~~
- ~~(b)—asset values that are not directly attributable to regulated FFLAS or services that are not regulated FFLAS.~~

~~2.1.2—Accounting-based allocation approach (ABAA)~~

~~(1)—Cost allocators must be used to allocate operating costs not directly attributable to either—~~

- ~~(a)—regulated FFLAS; or~~
- ~~(b)—services that are not regulated FFLAS.~~

~~(2)—Asset allocators must be used to allocate asset values not directly attributable to either—~~

- ~~(a)—regulated FFLAS; or~~
- ~~(b)—services that are not regulated FFLAS.~~

~~2.1.3~~2.1.1 Allocation between FFLAS classes for regulated fibre service providers subject to both information disclosure regulation and price-quality regulation

~~(1)~~ This clause applies ~~If if in respect of a regulated fibre service provider is~~ subject to both information disclosure regulation and price-quality regulation in regulations made under s 226 of the Act, ~~operating costs or asset values are allocated to regulated FFLAS, the operating costs or asset values must be further allocated as follows:~~

(2) ~~operating~~ **Operating costs** or **asset values** that are **directly attributable** to the provision of-

- (a) **PQ FFLAS** must be allocated to **PQ FFLAS**; ~~and~~
- (b) **ID-only FFLAS** must be allocated to **ID-only FFLAS**; and
- (c) any **additional FFLAS class** specified by the **Commission** must be allocated to that **additional FFLAS class**.

(3) The following must not be allocated to **PQ FFLAS, ID-only FFLAS** or any **additional FFLAS class** specified by the Commission:

- (a) any **operating cost** that is **directly attributable** to the provision of **services that are not regulated FFLAS**;
- (b) any **asset value** that is **directly attributable** to the provision of **services that are not regulated FFLAS**; or
- (c) any other cost that is recovered in respect of a **Part 4 regulated service**.

(4) **ABAA** must be applied in accordance with clauses 2.1.1(5) and (6) when any of the following are allocated:

- (a) **operating costs** that are not **directly attributable** to **PQ FFLAS, ID-only FFLAS, any additional FFLAS class** specified by the **Commission** or **services that are not regulated FFLAS**; and
- (b) **asset values** that are not **directly attributable** to **PQ FFLAS, ID-only FFLAS, any additional FFLAS class** specified by the **Commission** or **services that are not regulated FFLAS**.

~~(3)~~—

~~(4)~~(5) ~~in~~ In respect of **operating costs** that are not **directly attributable** to the provision of **PQ FFLAS, ~~or~~ ID-only FFLAS, any additional FFLAS class** specified by the **Commission** or **services that are not regulated FFLAS**, **cost allocators** must be used to allocate those **operating costs** to either:

- (a) **PQ FFLAS**; ~~or~~
- (b) **ID-only FFLAS**;
- (c) any **additional FFLAS class** specified by the **Commission**; and/or
- ~~(b)~~(d) **services that are not regulated FFLAS**.

~~(5)~~(6) ~~in~~ In respect of **asset values** that are not **directly attributable** to the provision of **PQ FFLAS, ~~or~~ ID-only FFLAS, any additional FFLAS class** specified by the **Commission** or **services that are not regulated FFLAS**, **asset allocators** must be used to allocate those **asset values** to either:

- (i) **PQ FFLAS**; ~~or~~
- (ii) **ID-only FFLAS**;
- (iii) any **additional FFLAS class** specified by the **Commission**; or
- ~~(iii)~~(iv) **services that are not regulated FFLAS**.

~~(6)~~(7) For the purpose of subclause ~~(±2)~~, the **financial loss asset** must be treated as being **directly attributable** to **PQ FFLAS**.

~~(7)~~—If the **Commission** specifies an **additional FFLAS class**—

- ~~(a)~~—any **operating costs** or **asset values** allocated to **PQ FFLAS** that are—

- ~~(i) **directly attributable** to that **additional FFLAS class** must be further allocated to that **additional FFLAS class**; and~~
- ~~(ii) not **directly attributable** to that **additional FFLAS class** must be further allocated using:

 - ~~(A) **cost allocators** to allocate **operating costs**; and~~
 - ~~(B) **asset allocators** to allocate **asset values**; and~~~~
- ~~(b) any **operating costs** or **asset values** allocated to **ID only FFLAS** that are-

 - ~~(i) **directly attributable** to that **additional FFLAS class** must be further allocated to that **additional FFLAS class**; and~~
 - ~~(ii) not **directly attributable** to the **additional FFLAS class** must be further allocated using-

 - ~~(A) **cost allocators** to allocate **operating costs**; and~~
 - ~~(B) **asset allocators** to allocate **asset values**.~~~~~~

2.1.42.1.2 Allocation between FFLAS classes for regulated providers subject only to information disclosure regulation

- (1) This clause applies if in respect of a **regulated provider** is subject only to information disclosure regulation in regulations made under s 226 of the **Act**, ~~**operating costs** or **asset values** are allocated to **regulated FFLAS**, the **operating costs** or **asset values** must be further allocated as follows:~~
- (2) **Operating costs** or **asset values** that are **directly attributable** to the provision of-
 - (a) **ID FFLAS** must be allocated to **ID FFLAS**; and
 - (b) any **additional FFLAS class** specified by the **Commission** must be allocated to that **additional FFLAS class**.
- (3) The following must not be allocated to **ID FFLAS** or any **additional FFLAS class** specified by the Commission:
 - (a) any **operating cost** that is **directly attributable** to the provision of **services that are not regulated FFLAS**;
 - (b) any **asset value** that is **directly attributable** to the provision of **services that are not regulated FFLAS**; or
 - (c) any other cost that is recovered in respect of a **Part 4 regulated service**.
- (4) **ABAA** must be applied in accordance with clauses 2.1.2(5) and (6) when any of the following are allocated:
 - (a) **operating costs** that are not **directly attributable** to **ID FFLAS**, any **additional FFLAS class** specified by the **Commission** or **services that are not regulated FFLAS**; and
 - (b) **asset values** that are not **directly attributable** to **ID FFLAS**, any **additional FFLAS class** specified by the **Commission** or **services that are not regulated FFLAS**.
- (5) In respect of **operating costs** that are not **directly attributable** to the provision of **ID FFLAS**, any **additional FFLAS class** specified by the **Commission** or **services that are not regulated FFLAS**, **cost allocators** must be used to allocate those **operating costs** to either:

- (a) **ID FFLAS;**
- (b) any **additional FFLAS class** specified by the **Commission**; or
- (c) **services that are not regulated FFLAS.**

(6) In respect of **asset values** that are not **directly attributable** to the provision of **ID FFLAS**, any **additional FFLAS class** specified by the **Commission** or **services that are not regulated FFLAS**, **asset allocators** must be used to allocate those **asset values** to either:

- (i) **ID FFLAS;**
- (ii) any **additional FFLAS class** specified by the **Commission**; or
- (iii) **services that are not regulated FFLAS.**

(7) For the purpose of subclause (2), the **financial loss asset** must be treated as being **directly attributable** to **ID FFLAS**.

~~(a) —~~

~~(2) — if the **Commission** specifies an **additional FFLAS class**—~~

~~(a) — any **operating costs** or **asset values** allocated to **regulated FFLAS** that are **directly attributable** to that **additional FFLAS class** must be allocated to that **additional FFLAS class**; and~~

~~(i) — any **operating costs** or **asset values** allocated to **regulated FFLAS** that are not directly attributable to that **additional FFLAS class** must be allocated using—~~

- ~~(A) **cost allocators** to allocate **operating costs**; and~~
- ~~(B) **asset allocators** to allocate **asset values**; and~~

~~(3) — for the purpose of paragraph (a), the **financial loss asset** must be treated as being **directly attributable** to **regulated FFLAS**.~~

2.1.52.1.3 Allocation requirements for ABAA

~~(1) — A **regulated provider** must:~~

~~(a) — update the **allocator values** it uses to apply **ABAA** in accordance with clause 2.1.2 no less than once every 12 months; and~~

~~(b) — review its choice of **allocator types** for **cost allocators, proxy cost allocators, asset allocators** and **proxy asset allocators** no less than once every 18 months.~~

(1) A **regulated provider** or **regulated fibre service provider** (whichever the case may be) must:

(a) update the **allocator values** it uses to apply **cost allocators** and **asset allocators** in accordance with clause 2.1.31 or 2.1.42 (whichever the case may require) no less than once every 12 months; and

~~(b)~~ (b) review its choice of **allocator types** for **cost allocators, proxy cost allocators, asset allocators** and **proxy asset allocators** no less than once every 18 months.

(2) Where a **regulated provider** or **regulated fibre service provider** (whichever the case may be) uses a **proxy cost allocator** for the purposes of clause 2.1.1(5) or 2.1.2(5), 2.1.2(1), 2.1.3(1)(b), 2.1.3(3)(a)(ii), 2.1.3(3)(b)(ii), or 2.1.4(1)(a)(ii)

or a **proxy asset allocator** for the purposes of clause [2.1.1\(6\)](#) or [2.1.2\(6\)](#)~~2.1.2(2), 2.1.3(1)(c), 2.1.3(3)(a)(ii), 2.1.3(3)(b)(ii), or 2.1.4(1)(a)(ii)~~, it must, in accordance with the requirements in the relevant **ID determination**, explain-

- (a) why a **causal relationship** cannot be established; and
 - (b) the rationale used for the **proxy cost allocator** or **proxy asset allocator**.
- (3) For the purposes of establishing an **initial RAB**, a **regulated provider** must apply the same **allocator types** as those used to determine the **financial losses** in accordance with Schedule B.
- (4) A **regulated fibre service provider** subject to both information disclosure regulation and price-quality regulation in regulations made under s 226 of the **Act** must apply the same cost allocation approach as used in Subpart 2 of Part 3 when the actual expenditure is reported, unless-
 - (a) there is a demonstrably justifiable reason to use an alternative **allocator type**, where the requirements of satisfying that alternative approach are specified in an **ID determination**; or
 - (b) it uses an **allocator type** that is comparable, in all material respects, to the **allocator type** used in Subpart 2 of Part 3.
- (5) Subject to subclause (7), when a **regulated provider** allocates either an **asset value** or an **operating cost** that is not **directly attributable to regulated FFLAS**, the total **asset values** or **operating costs** allocated to **regulated FFLAS** must not be more than the total **asset values** or total **operating costs** that the **regulated provider** could not have avoided if it ceased supplying **services that are not regulated FFLAS**.
- (6) Subclause (6) only applies to an allocation or allocations of an **asset value** or an **operating cost** that would have a material effect on the total **asset values** or total **operating costs** allocated to **regulated FFLAS**.

2.1.6 2.1.4 Costs or values in respect of regulated FFLAS

- (1) Subject to subclause (2), a **regulated provider** must, in accordance with the requirements in the relevant **ID determination**, identify-
 - (a) **operating costs** that are **directly attributable to regulated FFLAS**;
 - (b) **asset values** that are **directly attributable to regulated FFLAS**;
 - (c) **operating costs** which are not **directly attributable to regulated FFLAS**, but are incurred in the provision of such **regulated FFLAS**; and
 - (d) **asset values** which are not **directly attributable to regulated FFLAS** but relate to **fibre assets** that are **employed** in the provision of such **regulated FFLAS**.
- (2) As required under an **ID determination**, a **regulated provider** must specify the **operating costs** and **asset values** in subclause (1) in terms of one or more of:
 - (a) **FFLAS product families**;
 - (b) **geographic coverage**; or
 - (c) level of **fibre network** functionality or other functionality.

Proposed drafting for Capex IM to provide for the Commission’s alternative option for identification of non-linear connection costs

PART 3 INPUT METHODOLOGIES FOR PRICE-QUALITY PATHS

SUBPART 7 Capital expenditure

1.1.4 Interpretation

...

Connection capex	means capital expenditure <u>comprising (i) variable connection costs, and (ii) any non-linear connection costs that Chorus proposes to include in the connection capex baseline allowance, that is</u> 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 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 includes: (a) UFB initiative brownfield connection expenditure; (b) UFB initiative greenfield and infill connection expenditure; and (c) Chorus initiated migration from copper fixed line access services to PQ FFLAS ;
Connection capex unit cost	means a per end-user connection average <u>of variable connection costs</u> cost for a connection type
Non-linear connection costs	means costs for each connection type that are directly driven by the demand for new end-user connections but do not vary in a linear way with the number of new end-user connections
<u>Non-linear connection costs function</u>	<u>means the relationship between the number of end-user connections and the non-linear connection costs. This can be a mathematical formula, expressing the non-linear connection costs as a function of connections, or a table that shows how non-linear connection costs vary with connections</u>
Variable connection costs	means costs for each connection type that are directly driven by the demand for new end-user connections and that vary <u>in a linear way</u> with each new end-user connection

3.7.14 Connection capex baseline proposal process and timeframes

...

(2) A **connection capex baseline proposal** must:

- (a) state any **connection capex** that **Chorus** considers should be included in the **connection capex baseline allowance** for each **regulatory year** of the **regulatory period**;
 - ~~(b) separately identify any **non-linear connection costs** that **Chorus** proposes to include in the **connection capex baseline allowance**;~~
 - (b) only propose **connection capex** additional to the **base capex allowance** proposed for each **regulatory year** of the **regulatory period**;
 - (c) provide enough information to enable the **Commission** to evaluate the **connection capex baseline proposal** in accordance with Subpart 8, including:
 - (i) **regulatory template** agreed under subclause (3) or specified under subclause (4); and
 - (ii) information required by the **Commission's connection capex information request**; and
 - (d) be accompanied by the required assurance reports, including an **independent verification report, certification**, and an **auditor** report in accordance with clauses 3.7.16-3.7.17.
- (3) The **Commission** and **Chorus** must use reasonable endeavours to agree the information required in the **regulatory templates** for the relevant **regulatory period**, including:
- (a) the form and content of the **regulatory templates**;
 - (b) the **connection types** relevant to the forecast expenditure and a description of each;
 - (c) forecast initial **connection capex unit costs** by **connection type**; ~~made up of the following components that must not overlap and must be identified separately:~~
 - ~~(i) variable connection costs; and~~
 - ~~(ii) non-linear connection costs; and~~
 - ~~(d) the **non-linear connection costs function** for any **non-linear connection costs** that **Chorus** proposes to include in the **connection capex baseline allowance**; and~~
 - (d) forecast connection volumes by **connection type**.

3.7.15 Connection capex information request – information requirements

- (1) The **connection capex information request** may include information relating to any or all of the following areas:

...

- (l) forecast costs for each **connection type** that make up the **connection capex unit cost** ~~including specification of **variable connection costs** and **non-linear connection costs**, where **variable connection costs** and **non-linear connection costs** must not overlap and must be identified separately; and~~
- ~~(m) the **non-linear connection costs function** for any **non-linear connection costs** that **Chorus** proposes to include in the **connection capex baseline allowance**.~~

3.7.18 Connection capex annual report

...

- (2) The **connection capex annual report** must include the following information:
- (a) actual **connection capex unit costs** by **connection type** for the **regulatory year** which is the subject of the annual report, ~~including separate identification of the **non-linear connection costs**;~~
 - ~~(b) the **non-linear connection costs function** for any **non-linear connection costs** included in the **connection capex baseline allowance**;~~
 - ~~(c)~~ actual connection volumes by **connection type** for the **regulatory year** which is the subject of the annual report;

- (de) updated forecast **connection capex unit costs**, **non-linear connection costs function** and forecast connection volumes by **connection type** for the remaining **regulatory years** of the **regulatory period**.

3.7.20 Commission processes and timeframes for determining connection capex baseline allowance

...

- (2) For the purposes of subclause (1), the **connection capex baseline allowance** determination must include:
- (a) the **connection capex baseline allowance** by **connection type** for each **regulatory year** of the **regulatory period**;
 - (b) the **connection capex unit costs** and the non-linear connection costs function, by **connection type**, used to calculate the **connection capex baseline allowance** for each **regulatory year** of the **regulatory period**; and
 - (c) the forecast volumes, by **connection type**, used to calculate the **connection capex baseline allowance** for each **regulatory year** of the **regulatory period**.

3.7.21 The connection capex variable adjustment

...

- (2) The **connection capex variable adjustment** will be the difference between:
- (a) the **connection capex baseline allowance** for the **regulatory period** which is based on forecast connection volumes; and
 - (b) a **capital expenditure** amount that is based on actual connection volumes by **connection type** for the **regulatory period** multiplied by the **connection capex unit costs** and the non-linear connection costs function used in determining the **connection capex baseline allowance** for that **connection type**.