

18 November 2020

To: Chorus Limited
Level 10 Aon Centre
1 Willis Street
Wellington 6011

Attention: Julian Kersey
Head of Regulatory and Policy Affairs

Notice to supply information to the Commerce Commission under section 221 of the Telecommunications Act 2001 - Requirements for base capital expenditure, connection capex baseline expenditure, and operating expenditure proposals

Background

1. From 31 December 2021, Chorus Limited (Chorus) will be subject to price-quality regulation under Part 6 of the Telecommunications Act 2001 (Act) in respect of the services specified in Regulation 6 of the Telecommunications (Regulated Fibre Service Providers) Regulations 2019. The Commerce Commission (Commission) must, after the date on which the relevant input methodologies (IMs) are determined but before the implementation date (1 January 2022), make a determination under s 170 specifying how price-quality regulation applies to Chorus during the first regulatory period (1 January 2022 until 31 December 2024, that we refer to as PQP1).¹

Purpose of this notice

2. The information sought in this request is necessary for the Commission to carry out its functions and exercise its powers under ss 194 and 195 of the Act to determine Chorus's price-quality path, and to apply the relevant IMs in doing so (as required by s 175 of the Act).
3. One of the key requirements of the price-quality path is the maximum revenues that the Commission must determine, specified in the IMs as allowable revenue.² As set out in the Fibre information disclosure and price quality process and approach paper (approach paper), we have proposed to determine allowable revenue using a building blocks model.³

¹ Telecommunications Act 2001, s 172(1)(a).

² Commerce Commission *Fibre Input Methodologies (initial value of financial loss asset) Amendment Determination 2020 [2020] NZCC 24* (3 November 2020), clause 3.1.1 of Attachment B.

³ Commerce Commission "Fibre information disclosure and price-quality regulation – Proposed process and approach for the first regulatory period" (15 September 2020), paras 5.7-5.21.

4. The building blocks approach requires base capex allowances and connection capex baseline allowances,⁴ as set out in the capex IM, and also requires an opex allowance. Consistent with the approach outlined in the capex IM for capex and in our approach paper for opex,⁵ these expenditure allowances will be based on a set of proposals from Chorus setting out forecast expenditure.
5. To determine the expenditure allowances consistent with the capex IM,⁶ and to ensure that they best give (or are likely to best give) effect to the purpose of Part 6 and, where relevant, to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services, as required under s 166(2) of the Act, we must evaluate the proposals Chorus provides, and require the information requested in this notice to do so.
6. As such, we require Chorus, under section 221 of the Act, to provide the information set out in Attachment A of this notice.

Timeframes for responding to this notice

7. Chorus must supply the information in respect of the “base capex information request”,⁷ “connection capex information request”,⁸ and “opex information request”, as specified in Attachment A of this notice by **Thursday 31 December 2020**.
8. Chorus must supply the information in respect of the “February 2021 cost allocation information request”, as specified in Attachment D of this notice by **Friday 5 February 2021**.

Variations, extensions and exemptions

9. The Commission may, on Chorus’s application, grant Chorus a variation to the information requirements set out in this notice to account for any practical limitations on Chorus’s ability to provide the specified information by the specified time.
10. For the purposes of clause 9:
 - 10.1 if Chorus applies for a variation, its application must:

⁴ Commerce Commission *Fibre Input Methodologies (initial value of financial loss asset) Amendment Determination 2020 [2020] NZCC 24* (3 November 2020), clause 3.7.1(4)(a) of Attachment B.

⁵ Commerce Commission “Fibre information disclosure and price-quality regulation – Proposed process and approach for the first regulatory period” (15 September 2020), paras 5.167-5.172.

⁶ Commerce Commission *Fibre Input Methodologies (initial value of financial loss asset) Amendment Determination 2020 [2020] NZCC 24* (3 November 2020), clauses 3.7.8(9), 3.7.9, 3.7.14(7) and 3.7.15 of Attachment B.

⁷ We must issue a “base capex information request” to Chorus related to the base capex proposal for the first regulatory period. See Commerce Commission *Fibre Input Methodologies (initial value of financial loss asset) Amendment Determination 2020 [2020] NZCC 24* (3 November 2020), clauses 3.7.8(9) and 3.7.9 of Attachment B.

⁸ We must issue a “connection capex information request” to Chorus related to the connection capex baseline proposal for the first regulatory period. See Commerce Commission *Fibre Input Methodologies (initial value of financial loss asset) Amendment Determination 2020 [2020] NZCC 24* (3 November 2020), clauses 3.7.14(7) and 3.7.15 of Attachment B.

- 10.1.1 be in writing;
 - 10.1.2 explain why Chorus considers that a variation to the information requirements is reasonably justified having regard to the circumstances; and
 - 10.1.3 be made no later than 15 working days before the applicable time limit is due to expire; and
- 10.2 if the Commission decides to grant Chorus a variation, then:
 - 10.2.1 the approved form of the variation shall take effect by the Commission giving or posting written notice of the variation to Chorus; and
 - 10.2.2 the notice effecting the approved form of the variation must specify the reasons for the variation.
- 11. The Commission may, on Chorus's application, grant Chorus an extension to the timeframes set out in clauses 7-8 of this notice.
- 12. For the purposes of clause 11:
 - 12.1 if Chorus applies for an extension, its application must:
 - 12.1.1 explain why Chorus considers that an extension to the time limit is reasonably justified having regard to the circumstances; and
 - 12.1.2 be made no later than 5 working days before the applicable time limit is due to expire; and
 - 12.2 if the Commission decides to grant Chorus an extension, then:
 - 12.2.1 the approved form of the extension shall take effect by the Commission giving or posting written notice of the extension to Chorus;
 - 12.2.2 the notice effecting the approved form of the extension must specify the period of the extension and the reasons for the extension.
- 13. In relation to information in response to this notice that is contained in the base capex proposal and connection capex baseline proposal, the Commission may not grant an extension beyond 31 December 2020, consistent with clauses 3.7.8(1)(a) and 3.7.14(1) of Attachment B of the Fibre Input Methodologies (initial value of financial loss asset) Amendment Determination 2020 [2020] NZCC 24.
- 14. The Commission may, at any time, by way of written notice to Chorus:
 - 14.1 exempt Chorus from any obligation in this notice, on such terms and conditions as the Commission specifies in the notice; and
 - 14.2 amend or revoke any such exemption.

Means of responding to this notice

15. In accordance with the timeframes in clauses 7-8 above, Chorus must produce and provide the Commission with the information required by supplying the information to the Commission by uploading it to the Commission's box.com data room. Instructions for uploading the information to the box.com data room have been provided in the covering email to this notice.
16. Chorus must also notify the Commission when some or all of the information has been provided by email to regulation.branch@comcom.govt.nz (Attention: Manager, Fibre price-quality and information disclosure) with the subject line "Chorus – Response to section 221 Notice – Requirements for capital expenditure and operating expenditure information".
17. Narrative information is to be provided or published in searchable Adobe PDF format. Numerical information is to be provided or published in electronic form in an 'unlocked' MS Excel file format.

Use of supplied information and confidentiality

18. Where Chorus considers that any information it provides to the Commission in response to this notice is confidential or commercially sensitive, and that the Commission should not publish or publicly refer to any particular part of its response, Chorus must:
 - 18.1 include that information in a separate appendix;
 - 18.2 Provide both an unredacted version and a redacted version with the confidential/commercially sensitive information removed;
 - 18.3 clearly mark the information as confidential or commercially sensitive (as applicable) in both the redacted and unredacted version; and
 - 18.4 give clear reasons why Chorus considers that part of the response is confidential or commercially sensitive (as applicable).
19. If Chorus indicates that we should not publish or publicly refer to part of its response, we will discuss with Chorus before deciding whether to do so.
20. Please note that all responses we receive, including any parts that we decide not to publish, can be requested from the Commission under the Official Information Act 1982. This means, that if requested, we would be required to release material (whether published or not) unless good reason existed under the Official Information Act 1982 to withhold it. We would normally consult before releasing any material that Chorus has requested to not be published.

Offences under section 103 of the Act

21. Sections 15(1)(l) and 15(4) of the Act provide that s 103 of the Commerce Act 1986 (Commerce Act) applies to notices made under s 221 of the Act.
22. Section 103 of the Commerce Act provides that no person shall:
 - 22.1 without reasonable excuse, refuse or fail to comply with a notice under [section 221 of the Act];

- 22.2 in purported compliance with such a notice, furnish information, or produce a document, or give evidence, knowing it to be false or misleading; or
 - 22.3 attempt to deceive or knowingly mislead the Commission in relation to any matter before it.
23. It is an offence to contravene section 103 of the Commerce Act and any person who does so is liable on conviction to a fine not exceeding \$100,000 in the case of an individual or \$300,000 in any other case.

Dated at Wellington: 18 November 2020
Signed by:

Tristan Gilbertson
Telecommunications Commissioner

Attachment A Information required for “base capex information request”, “connection capex information request”, and “opex information request”

- A1 Under sections 221(1)(e), (f) and (g) of the **Act**, and consistent with clauses 3.7.9 and 3.7.15 of Attachment B of the **IM Determination**, **Chorus** must provide the following information in its **base capex proposal**, **connection capex baseline proposal**, **opex proposal**, the **integrated fibre plan** or any other documents **Chorus** submits in support of its **base capex proposal**, **connection capex baseline proposal**, or **opex proposal**.
- A2 **Chorus** must comply, where relevant, with the following parts of the **IM Determination** when responding to this notice:
- A2.1 Part 3 Subpart 2: Cost allocation;
- A2.2 Part 3 Subpart 3: Asset valuation;
- A2.3 Part 3 Subpart 6: Quality dimensions; and
- A2.4 Part 3 Subpart 7: Capital expenditure.

Interpretation

- A3 Unless the context otherwise requires:
- A3.1 a word which denotes the singular also denotes the plural and vice versa;
- A3.2 unless stated otherwise, any reference to “includes” means “includes, but is not limited to”;
- A3.3 in the attachments to this notice, words or phrases in bold type bear the following meanings:
- A3.3.1 **access seeker** has the meaning set out in the **IM Determination**;
- A3.3.2 **Act** means the Telecommunications Act 2001;
- A3.3.3 **allocator type** has the meaning set out in the **IM Determination**;
- A3.3.4 **allocator value** has the meaning set out in the **IM Determination**;
- A3.3.5 **auditor** has the meaning set out in the **IM Determination**;
- A3.3.6 **availability** has the meaning set out in the **IM Determination**;

- A3.3.7 **base capex categories** means the base capex categories set out in Attachment B;
- A3.3.8 **base capex** has the meaning set out in the **IM Determination**;
- A3.3.9 **base capex proposal** has the meaning set out in the **IM Determination**;
- A3.3.10 **base capex sub-category** means the base capex sub-categories set out in Attachment B;
- A3.3.11 **capex** has the meaning set out in the **IM Determination**;
- A3.3.12 **capital contribution** has the meaning set out in the **IM Determination**;
- A3.3.13 **causal relationship** has the meaning set out in the **IM Determination**;
- A3.3.14 **CEO** has the meaning set out in the **IM Determination**;
- A3.3.15 **Chorus** has the meaning set out in the **IM Determination**;
- A3.3.16 **Commission** has the meaning set out in the **IM Determination**;
- A3.3.17 **commissioned for FFLAS** has the meaning set out in the **IM Determination**;
- A3.3.18 **commissioned** has the meaning set out in the **IM Determination**;
- A3.3.19 **communal fibre network** has the meaning set out in the **IM Determination**;
- A3.3.20 **connection capex baseline proposal** has the meaning set out in the **IM Determination**;
- A3.3.21 **connection capex** has the meaning set out in the **IM Determination**;
- A3.3.22 **connection sub-type** means the connection sub-types set out in the column labelled "Connection sub-types" in Attachment B;
- A3.3.23 **cost allocator** has the meaning set out in the **IM Determination**;
- A3.3.24 **cost escalator** means a measure applied to translate expenditure forecasts in constant prices of a base year to nominal dollars;

- A3.3.25 **customer service** has the meaning set out in the **IM Determination**;
- A3.3.26 **direct fibre access service** means point-to-point **FFLAS** used to provide dedicated backhaul for fixed and mobile networks and in other business applications that **Chorus's** assumes will be declared to be regulated under section 228 of the **Act**;
- A3.3.27 **directly attributable** has the meaning set out in the **IM Determination**;
- A3.3.28 **director** has the meaning set out in the **IM Determination**;
- A3.3.29 **disclosure year** has the meaning of paragraph (a) of the definition of 'disclosure year' in the **IM Determination**;
- A3.3.30 **easement** has the meaning set out in the **IM Determination**;
- A3.3.31 **easement land** has the meaning set out in the **IM Determination**;
- A3.3.32 **employ** has the meaning set out in the **IM Determination**;
- A3.3.33 **end-user** has the same meaning as defined in s 5 of the **Act**;
- A3.3.34 **expenditure sub-categories** mean the **base capex sub-categories** and **opex sub-categories** listed in attachment B;
- A3.3.35 **fault** has the meaning set out in the **IM Determination**;
- A3.3.36 **FFLAS** has the same meaning as 'fibre fixed line access service' defined in s 5 of the **Act**, and includes;
- Voice services: Services to enable the delivery of the telephony and low speed data services over a **fibre network** (including, anchor services, baseband, ATA voice);
- Bitstream PON services: Single or multi-class point-to-multipoint fibre access services (including anchor services, bitstream services, bitstream 2, 3, 3A, bitstream accelerate services, 10GPON, NGPON and multicast);
- Unbundled PON services: Point-to-multipoint layer 1 fibre access services (including PON fibre access services and unbundled fibre services);
- Point-to-point services: Single, multi-class or layer 1 point-to-point fibre access services (including bitstream 4, enhanced bitstream 4, HSNS, BFAS and **direct fibre access services**);

Transport services: Layer 1 or managed throughput fibre services provided over a **fibre network**, to transport voice and data traffic between central offices, including central offices that are also points of interconnection (including Intra Candidate Area Backhaul Services, tail extension service and other inter-CO fibre services; but excluding national / inter-candidate area backhaul services such as **Chorus** Regional Transpower;

Co-location and interconnection services: Network equipment accommodation and management services including network interconnection services (including Central Office and points of interconnection Co-location services, handover connections, Ethernet handover connections, tie-cables and jumpering); and

Connection services: Services to install and enable “FFLAS” between **communal fibre network** infrastructure and an **end-user’s** premises, building or other access point (including pre-wiring, cable and duct fit-out);

- A3.3.37 **fibre network** has the same meaning as defined in s 5 of the **Act**;
- A3.3.38 **finance lease** has the meaning set out in the **IM Determination**;
- A3.3.39 **financial loss period** has the meaning set out in the **IM Determination**;
- A3.3.40 **fixed life easement** has the meaning set out in the **IM Determination**;
- A3.3.41 **historical** means for each of the calendar years in the period from 1 January 2016 to 31 December 2019;
- A3.3.42 **historical quality outcomes** means quality outcomes for **UFB FFLAS** in the period 1 January 2016 to 31 December 2019;
- A3.3.43 **identifiable non-monetary asset** has the meaning set out in the **IM Determination**;
- A3.3.44 **ID-only FFLAS** has the meaning set out in the **IM Determination**;
- A3.3.45 **IM Determination** means the Fibre Input Methodologies (initial value of financial loss asset) Amendment Determination 2020 [2020] NZCC 24;
- A3.3.46 **individual capex** has the meaning set out in the **IM Determination**;

- A3.3.47 **individual capex proposal** has the meaning set out in the **IM Determination**;
- A3.3.48 **integrated fibre plan** has the meaning set out in the **IM Determination**;
- A3.3.49 **LFC** means each of Enable Networks Limited, Ultrafast Fibre Limited and Northpower Fibre Limited, Northpower LFC2 Limited, or their subsidiaries of, or successors to, those companies;
- A3.3.50 **network spare** has the meaning set out in the **IM Determination**;
- A3.3.51 **non-linear connection cost function** has the meaning set out in the **IM Determination**;
- A3.3.52 **non-linear connection cost** has the meaning set out in the **IM Determination**;
- A3.3.53 **NZ IFRS 16** means *New Zealand Equivalent to International Financial Reporting Standard 16 Leases (NZ IFRS 16)*, issued by the New Zealand Accounting Standards Board of the External Reporting Board on 11 February 2016, under s 12(a) of the Financial Reporting Act 2013;
- A3.3.54 **operating cost** has the meaning in clause B1.1.1(2) of Schedule B in the **IM Determination**;
- A3.3.55 **opex** has the meaning of paragraph (b) of the definition of ‘operating expenditure’ in the **IM Determination**;
- A3.3.56 **opex information** means the information **Chorus** is required to provide in response to the information requirements under the heading ‘Opex information’ in this notice;
- A3.3.57 **opex proposal** means a written application submitted by **Chorus** to the **Commission** for approval of **opex**;
- A3.3.58 **opex sub-category group** means the opex categories set out in the column labelled “Opex category groups” in Attachment B;
- A3.3.59 **opex sub-category** means the opex categories set out in the column labelled “Opex sub-category groups” in Attachment B;
- A3.3.60 **performance** has the meaning set out in the **IM Determination**;
- A3.3.61 **PQ FFLAS** has the meaning set out in the **IM Determination**;

A3.3.62 **PQ FFLAS scope** means the scope of **PQ FFLAS** based on the following **Commission** emerging views on the scope of **PQ FFLAS**, and means:⁹

in areas where it is arguable whether the other **LFC** has installed a **fibre network** under the **UFB initiative, regulated FFLAS** supplied by **Chorus** to **end-users** should be subject to ID-only regulation; and

that any additional **FFLAS** that **Chorus** constructs after 1 January 2022 within another **LFC's** "geographical area" will be exempt from PQ regulation and subject to ID regulation only;

A3.3.63 **PQP1** has the meaning of 'first regulatory period' in the **IM Determination**;

A3.3.64 **priority base capex sub-category** means the **base capex sub-categories** set out in the column labelled 'priority base capex sub-categories' in Attachment B;

A3.3.65 **priority opex sub-category** means the **opex sub-categories** set out in the column labelled 'priority opex sub-categories' in Attachment B;

A3.3.66 **programme** has the meaning set out in the **IM Determination**;

A3.3.67 **project** has the meaning set out in the **IM Determination**;

A3.3.68 **proposed connection type** means the connection types that are proposed to be the 'connection types' as set out in the **IM Determination**, as set out in the column labelled "Proposed connection type" in Attachment B;

A3.3.69 **provisioning** has the meaning set out in the **IM Determination**;

A3.3.70 **proxy cost allocator** has the meaning set out in the **IM Determination**;

A3.3.71 **quality dimensions** means the mandatory quality dimensions and optional quality dimensions set out in clauses 3.6.1-3.6.2 of Attachment B of the **IM Determination**;

⁹ Commerce Commission "Fibre information disclosure and price-quality regulation – Proposed process and approach for the first regulatory period" (15 September 2020), Chapter 6.

- A3.3.72 **regulated FFLAS** has the meaning set out in the **IM Determination**;
- A3.3.73 **regulated fibre service provider** has the meaning set out in the **IM Determination**;
- A3.3.74 **regulatory template** has the meaning set out in the **IM Determination**;
- A3.3.75 **regulatory year** has the meaning set out in the **IM Determination**;
- A3.3.76 **related party transaction** has the meaning set out in the **IM Determination**;
- A3.3.77 **right-of use-asset** has the meaning set out in the **IM Determination**;
- A3.3.78 **services that are not regulated FFLAS** has the meaning set out in the **IM Determination**;
- A3.3.79 **UFB FFLAS** means any **FFLAS** provided by a **regulated fibre service provider** under the **UFB initiative** for the **financial loss period**;
- A3.3.80 **UFB initiative** has the meaning as set out in s 5 of the **Act**;
- A3.3.81 **vested asset** has the meaning set out in the **IM Determination**;
and
- A3.3.82 **works under construction** has the meaning set out in the **IM Determination**.

- A4 Where **Chorus** provides any financial information other than in **regulatory templates**, it must identify whether this information is provided in nominal terms or constant-price terms.

General information

Summary information

- A5 Provide a summary document that:
 - A5.1 lists the name of each file provided in response to the requirements set out in this notice and a brief description of the information each file contains;
 - A5.2 shows where the **Commission** can find the information provided by **Chorus** in response to each requirement set out in this notice;

A5.3 includes a glossary of key terms used by **Chorus** in its response to this notice where the terms are not defined in this notice or the **IM determination**.

A6 Provide a summary of the parts of **Chorus's** company structure that are involved in the delivery of **PQ FFLAS**, including:

A6.1 a current company structure map, including:

A6.1.1 **Chorus** and all of its related companies and subsidiaries;

A6.1.2 a high-level description of the main functions of each company and subsidiary and their relationship with **Chorus**,

A6.1.3 any proposed material changes planned to be made to **Chorus's** company structure for or in **PQP1**;

A6.2 a current organisation chart, including:

A6.2.1 a description of each operating unit;

A6.2.2 the relationships between the operating units; and

A6.2.3 staff numbers for each operating unit;

A6.3 any already-confirmed material changes planned to be made to **Chorus's** company structure for or in **PQP1** that can be expected to alter **opex** or **capex** for **PQP1**.

Overall expenditure information

A7 Provide a list of and high-level description of each of **Chorus's** key approaches to the demarcation between proposed **base capex**, proposed **connection capex**, and proposed **opex**.

A8 Provide a summary of the key drivers for **Chorus's** proposed **base capex**, proposed **connection capex** and proposed **opex**, which must, to the extent relevant, include an overview where **availability**, **performance**, or other **quality dimensions** are a key driver for the proposed **base capex**, proposed **connection capex** and proposed **opex**.

A9 Provide an explanation of any linkages and trade-offs between each of the following, with reference to relevant **expenditure sub-categories** and **connection types**, that **Chorus** considered when preparing its expenditure forecasts:

A9.1.1 proposed **base capex**;

A9.1.2 proposed **connection capex**; and

A9.1.3 proposed **opex**.

A10 Provide a description of the key legislative obligations owed by **Chorus** that are drivers of proposed **base capex**, proposed **connection capex** and proposed **opex**.

Consultation

A11 A description of the extent and effectiveness of any consultation with **access seekers** and **end-users** on proposed **base capex**, proposed **connection capex**, and proposed **opex** including how this consultation has been incorporated into the proposals and what impact it has had on the proposals.

Deliverability and procurement

A12 Summarise the assumptions made regarding the deliverability of the level of proposed **base capex**, proposed **connection capex**, and proposed **opex** and an explanation of factors that are likely to affect the deliverability of the level of expenditure.

A13 Provide a description of:

A13.1 plans for resourcing and delivering the level of proposed **base capex**, proposed **connection capex**, and proposed **opex**;

A13.2 the key risks associated with procuring, resourcing and delivering the levels of proposed **base capex**, proposed **connection capex**, and proposed **opex** and an explanation of each risk's potential to affect:

A13.2.1 the deliverability of the levels of proposed **base capex**, proposed **connection capex**, and proposed **opex**, whichever is applicable;

A13.2.2 the expected impact on high-level **PQ FFLAS** quality outcomes, for example, across **quality dimensions** such as **provisioning**, **availability** and **performance**.

A14 Provide a description of the procurement processes that **Chorus** will use to help deliver proposed expenditure (with specific reference to proposed **base capex**, **connection capex** and proposed **opex** where relevant), including:

A14.1 approach to delivering works (for example, insourced or outsourced);

A14.2 the processes used to select, evaluate, and award outsourced work;

- A14.3 details of the key service level agreements in service company contracts that impact on **PQ FFLAS** quality outcomes, for example, across **quality dimensions** such as **provisioning, customer service** and **faults**; and
- A14.4 key risks associated with procurement and existing supplier contractual arrangements that have the potential to affect the delivery of **Chorus'** proposed expenditure with specific reference to proposed **base capex**, proposed **connection capex** and proposed **opex** where relevant).

Links between expenditure proposals and financial strategies

- A15 Provide the following information, to the extent relevant to **PQ FFLAS scope**:
- A15.1 a summary of **Chorus's** strategies for dividends and debt management applicable to **PQP1**;
- A15.2 an explanation of how **Chorus's** strategies for dividends and debt management are consistent with the equivalent information available to **Chorus's** external stakeholders immediately prior to **Chorus** submitting its **base capex proposal, connections capex baseline proposal** and **opex proposal**;
- A15.3 an explanation of how **Chorus's** strategy for dividends and debt management are consistent with proposed **base capex**, proposed **connection capex**, and proposed **opex**; and
- A15.4 if **Chorus** makes assumptions in its responses to A15.1-A15.3 above that differ from its standard corporate modelling, describe those assumptions.

Base capex and connection capex information

Base capex proposal and connection capex baseline proposal – general information

- A16 **Chorus** must provide the following information:
- A16.1 an explanation of how **Chorus's** overall business strategy and asset management strategy is reflected in its proposed **base capex** and **connection capex** for **PQP1**;
- A16.2 an explanation of key trends between levels of **historical capex** and proposed **base capex** and proposed **connection capex**, including:
- A16.2.1 any key cost allocation assumptions **Chorus** made to allocate expenditure to **PQ FFLAS** (for proposed **capex**) that influenced those trends;

- A16.2.2 if **Chorus** provides **historical** allocated information, any key cost allocation assumptions **Chorus** made to allocate expenditure to **UFB FFLAS** (for proposed **capex**) that influenced those trends;
- A16.2.3 where relevant to the explanation, Chorus may provide unallocated **historical base capex** and **connection capex** and unallocated proposed **base capex** and proposed **connection capex**;
- A16.2.4 where relevant to the explanation, **Chorus** may provide **historical base capex** and **connection capex** allocated to **UFB FFLAS**;
- A16.3 a description of the approval process **Chorus** used for adopting the proposed **base capex** and **connection capex**;
- A16.4 evidence demonstrating if, and how **Chorus** has, in relation to proposed **base capex** and proposed **connection capex**:
 - A16.4.1 pursued, and is pursuing, process improvements that led or will lead to cost efficiencies and reduce **capex**;
 - A16.4.2 ensured and is seeking to ensure appropriate least whole-of-life cost and efficiency improvements;
 - A16.4.3 pursued and is pursuing cost reduction strategies for its **projects** and **programmes**; and
 - A16.4.4 ensured and is seeking to ensure that both internal and external suppliers of goods and services have incentives to perform well and to identify cost savings.
- A16.5 A description of any **non-linear connection costs** for proposed **base capex**, including the value of such costs and why they have not been included in the **connection capex** proposal.
- A16.6 summarise any efficiency assumptions that **Chorus** has applied in its proposed **base capex** and proposed **connection capex**.

Base capex sub-categories – general

A17 Provide an overview of:

- A17.1 the forecasting approach **Chorus** used for each **base capex sub-category**, which may include “bottom up”, “base-step-trend”, “benchmarking analysis” and any quantitative or economic analysis used in the approach;

- A17.2 why **Chorus** considers the forecasting approach used for each **base capex sub-category** is appropriate;
- A17.3 the key assumptions of the forecasting approach **Chorus** used for each **base capex sub-category** and how **Chorus** applied the key assumptions;
- A17.4 the extent of any uncertainty in the forecasts for each **base capex sub-category** related to:
 - A17.4.1 the need for the proposed **base capex**;
 - A17.4.2 the economic case justifying the proposed **base capex**;
 - A17.4.3 the timing of the proposed **base capex**; and
- A17.5 the principal models **Chorus** used for each **base capex sub-category** and how **Chorus** relied on each of them when forecasting each **base capex sub-category**.
- A18 Provide, for each **base capex sub-category**, the outputs, outcomes, and benefits and an explanation of the connections between the outputs, outcomes, and benefits.
- A19 Provide a list of and description of **Chorus's** existing key policies that materially influence the proposed **base capex** in each **base capex sub-category**, such as:
 - A19.1 asset management, including ensuring the least whole of life costs for assets;
 - A19.2 business planning;
 - A19.3 insurance (including self-insurance); and
 - A19.4 procurement related to the proposed **base capex**.

Priority base capex sub-categories for PQP1

- A20 Provide a summary of each **priority base capex sub-category**, including its drivers, outputs, outcomes, and benefits, where:
 - A20.1 **Chorus** must provide a description of the targeted impact on key outcomes; and
 - A20.2 this summary must describe key outcomes **Chorus** is targeting in relation to **customer service, performance** or other **quality dimensions** with the proposed **priority base capex sub-category**.

- A21 Provide a description of the approval process (including governance arrangements) **Chorus** used in developing the proposed **priority base capex sub-categories**.

Specific information requirements for connection capex

- A22 Provide the following information:
- A22.1 a description of why each **proposed connection type** is an appropriate grouping of **connection subtypes**;
 - A22.2 A description of the assets, costs and any **connection sub-types** that make up each **proposed connection type**;
 - A22.3 An explanation of the approach to cost estimation for the unit cost applied to forecast expenditure for each **connection type**; this explanation must discuss the extent to which unit costs are based on **historical** expenditure and **historical** volumes or any other basis (such as rates agreed with **Chorus'** external suppliers of goods and services or comparative benchmarks);
 - A22.4 A description of the methodology used to forecast the connection volumes for each **proposed connection type** and forecast unit costs, including any existing quantitative or economic analysis used in the approach;
 - A22.5 For any **non-linear connection costs** proposed to be included in each **proposed connection type**, provide the following information:
 - A22.5.1 An explanation of the proposed **non-linear connection cost function** for each **non-linear connection cost**; and
 - A22.5.2 An explanation of how **Chorus** has ensured that the **non-linear connection costs** are not also included in the proposed **base capex**;
 - A22.6 Proposed **connection capex** and proposed **connection capex** volumes for each **proposed connection type** that relate to **PQ FFLAS** pre-installations (unconnected with a **PQ FFLAS** order) and any related **capital contributions**; and
 - A22.7 **Chorus's** approach to **capital contributions** for each **proposed connection type**, and a summary of key assumptions used in relation to **capital contributions** for each **proposed connection type**.
- A23 For any proposed **connection capex** and proposed **base capex** that relates to the retention of **end-users** or **access seekers**, provide:

- A23.1 a description of the forecast approach used to determine the proposed retention capex amount;
- A23.2 a description of the justification for the proposed forecast amount; and
- A23.3 any relevant policies and plans used in developing the proposed forecast amount.

A24 For proposed **connection capex**:

- A24.1 may provide **historical** capex (allocated);
- A24.2 must provide **historical** volumes of connections consistent with **historical capex** required by paragraph A24.1.

Asset valuation information relevant to forecast capex

A25 To the extent **Chorus** forecast capex information relates to **commissioned** assets or the methodologies in relation to asset valuation are relevant in producing capex forecasts, **Chorus** must apply the relevant methodologies and definitions in Part 3 Subpart 3: Asset valuation of Attachment B of the **IM Determination**, including:

- A25.1 **commissioned and employed**;
- A25.2 **easement, easement land and fixed life easement**;
- A25.3 **finance leases**;
- A25.4 **identifiable non-monetary assets**;
- A25.5 **network spares**;
- A25.6 **related party transaction**;
- A25.7 assets employed by **Chorus** in providing **services that are not regulated FFLAS** that are now forecast to be **commissioned for FFLAS**;
- A25.8 **vested assets**; and
- A25.9 **works under construction**.

A26 Where these concepts are relevant to **Chorus's capex proposal**, **Chorus** must provide additional information that explains how the forecasts in relation to the matters listed in A25 are based on relevant and demonstrably reasonable assumptions, data, methods and judgements.

- A27 The proposed expenditure in relation to **finance leases** and **identifiable non-monetary assets** must be included in the proposed **base capex** and **connection capex** in accordance with the **IM Determination**.
- A28 For the purpose of explaining proposed investment in **right-of-use assets**, **Chorus**, may:
- A28.1 translate proposed **commissioned** values of **right-of-use assets** into annual cash-flows; and
- A28.2 in respect of forecast and **historical** information, provide a comparison between:
- A28.2.1 cash flows of expensed amounts before **Chorus** commenced reporting in accordance with **NZ IFRS 16**; and
- A28.2.2 depreciation and interest expense cash flows after **Chorus** commenced reporting in accordance with **NZ IFRS 16**.

Individual capex

- A29 Provide an overview of any **individual capex proposals** that **Chorus** is considering proposing prior to or during **PQP1**.

Capitalisation of costs

- A30 Provide a summary of **Chorus's** approach for capitalising labour costs and any other costs **Chorus** capitalises.
- A31 Provide a quantitative demonstration that **Chorus's** proposed **base capex**, proposed **connection capex** and proposed **opex** (in aggregate) is consistent in relation to:
- A31.1 forecast capitalised costs (proposed **base capex** and **connection capex**), and
- A31.2 expensed costs (**opex**) in relation to labour costs and any other costs **Chorus** capitalises.

Opex information

Opex proposal - general

- A32 **Chorus** must provide the following information:
- A32.1 an explanation of how **Chorus's** overall business strategy and asset management strategy is reflected in its proposed **opex** for **PQP1**;

- A32.2 an explanation of key trends between levels of **historical opex** and proposed **opex**, including:
- A32.2.1 any key cost allocation assumptions **Chorus** made to allocate expenditure to **PQ FFLAS** (for proposed **opex**) and, if **Chorus** chooses to provide **historical** allocated information, **UFB FFLAS** (for **historical opex**) that influenced those trends; and
 - A32.2.2 where relevant to the explanation, **Chorus** may provide:
 - A32.2.2.1 unallocated **historical operating costs**; and
 - A32.2.2.2 **proposed opex**;
 - A32.2.3 where relevant to the explanation **Chorus** may provide **historical opex** allocated to **UFB FFLAS**;
- A32.3 a description of the approval process **Chorus** used for adopting the proposed **opex**;
- A32.4 evidence demonstrating if, and how **Chorus** has, in relation proposed **opex**:
- A32.4.1 pursued, and is pursuing, process improvements that led or will lead to cost efficiencies and reduce **opex**;
 - A32.4.2 ensured and is seeking to ensure appropriate least whole-of-life cost and efficiency improvements;
 - A32.4.3 pursued and is pursuing cost reduction strategies for its **projects** and **programmes**; and
 - A32.4.4 ensured and is seeking to ensure that both internal and external suppliers of goods and services have incentives to perform well and to identify cost savings; and
- A32.5 summarise any efficiency assumptions that **Chorus** has applied in its proposed **opex**.

Opex sub-categories – general

- A33 Provide a description of the drivers, outputs, outcomes and benefits for each **opex sub-category**.
- A34 Provide a summary of each **opex sub-category**, including its drivers, outputs, outcomes, and benefits, where:

- A34.1 **Chorus** must provide a description of the targeted impact on key outcomes; and
- A34.2 this summary must describe key outcomes **Chorus** is targeting in relation to **performance, availability** or other **quality dimensions** with the proposed **opex sub-category**.
- A35 Provide a description of the approval process (including governance arrangements) **Chorus** used in developing the proposed **opex** for each **opex sub-category**.
- A36 An overview of the methods used to develop the **proposed opex** forecast for each **opex sub-category** and for **opex** in aggregate, which must include:
- A36.1 details of the forecasting approach used for each **opex sub-category**, eg, bottom up, base-step-trend, benchmarking analysis including where relevant, any quantitative or economic analysis used in the approach;
- A36.2 why **Chorus** considers the forecasting approach used for each **sub-category** is appropriate;
- A36.3 the key assumptions of the forecasting approach **Chorus** used for each **opex sub-category** and how **Chorus** applied the key assumptions;
- A36.4 details of how the effects of uncertainties are incorporated in forecasts;
- A36.5 any factors driving a material change in levels of proposed **opex** for each of the **opex sub-categories** forecast for **PQP1**;
- A36.6 details of the challenge and approval process employed for sign-off of **opex** forecasts; and
- A36.7 a schedule of key models used, accompanied by explanations of the models and how they were relied upon.
- A37 Provide **historical opex** for each **opex sub-category** (where information may be pre-allocation).
- A38 Provide, for each **opex sub-category**, the outputs, outcomes, and benefits of that **opex** and an explanation of the connections between the outputs, outcomes, and benefits.
- A39 Provide a list of and description of **Chorus's** existing key policies that materially influence proposed **opex** in each **opex sub-category**, such as:
- A39.1 asset management, including ensuring lowest whole of life costs for assets;

- A39.2 business planning;
- A39.3 insurance (including self-insurance); and
- A39.4 procurement related to proposed **opex**.

Cost escalators and foreign exchange assumptions

- A40 Provide the following information for each **cost escalator** in the **base capex proposal**, **connection capex baseline proposal** and **opex proposal** in responding to this notice:
 - A40.1 a description of each **cost escalator** and the rationale for its use;
 - A40.2 the methodology underlying the calculation of the **cost escalator's** quantum, including by reference to inputs and assumptions;
 - A40.3 the weighting given to each **cost escalator** and description of how that weighting was determined, including any assumptions relied upon; and
 - A40.4 any consultant reports used in developing the **cost escalators**.
- A41 In respect of the foreign exchange assumptions used in responding to this notice, provide the following information:
 - A41.1 a list of the foreign exchange rates, and the source of those rates, used to prepare the proposed **base capex**, proposed **connection capex**, and proposed **opex**; and
 - A41.2 an estimate of the forecast exposure to foreign exchange movements for each foreign currency for each **regulatory year** of **PQP1** and a description of how these estimates were produced.

Regulatory templates

- A42 Provide quantitative information regarding the **base capex proposal**, **connection capex baseline proposal**, and **opex proposal** in **regulatory templates** that meet the minimum content and format requirements set out in Attachment C, and that apply the **base capex sub-categories**, **connection capex types**, and **opex subcategories** in Attachment B.
- A43 Where **Chorus** considers information that must be provided in a **regulatory template** to be confidential, it must provide versions of the **regulatory template** both with and without the confidential information.

Cost allocation

General requirements for opex and capex cost allocation

- A44 Provide a summary (including a graphical illustration) of the process and key assumptions **Chorus** used for allocating costs that are **directly attributable to PQ FFLAS** and **opex** and asset values that are not **directly attributable to PQ FFLAS** in the proposed **base capex**, proposed **connection capex**, proposed **individual capex** (if any) and proposed **opex**.
- A45 Provide the following for proposed **base capex**, proposed **connection capex**, and proposed **opex**:
- A45.1 the **allocator types, cost allocators, asset allocators** and **allocator values Chorus** used, including whether the **cost allocators** and **asset allocators** applied are based on a **causal relationship** or a **proxy cost allocator**;
- A45.2 a summary of instances where the same **cost allocators** and **asset allocators** have been applied:
- A45.2.1 for similar expenditure types; and
- A45.2.2 across time for a given expenditure type;
- A45.3 a summary of instances where different **cost allocators** and **asset allocator** have been applied:
- A45.3.1 for similar expenditure types; and
- A45.3.2 across time for a given expenditure type; and
- A45.4 a brief explanation of **Chorus's** intended approach to compliance with clause 2.1.3(3) of Attachment B of the **IM Determination**.¹⁰

Specific cost allocation information requirements in relation to the application of the Regulations

- A46 In this section we set out specific requirements in relation to cost allocation between **PQ FFLAS** and **ID-only FFLAS**.

¹⁰ We note that **Chorus** is not required to demonstrate compliance with clause 2.1.3(3) of Attachment B of the **IM determination** for the purposes of compliance with this notice. As indicated in our approach paper, our approach at this time is to publish a draft and final decision on Chorus's transitional RAB for setting **PQP1**, including the forecast value of the financial loss asset in 2021. See Commerce Commission "Fibre information disclosure and price-quality regulation – Proposed process and approach for the first regulatory period" (15 September 2020), page 30.

Information required on cost allocation between PQ FFLAS and ID-only FFLAS

A47 In relation to allocating forecast common costs between **PQ FFLAS** and **ID-only FFLAS** (where **Chorus** must apply the **PQ FFLAS scope**), **Chorus** must:

A47.1 provide an overview of the process and systems it has used to develop forecast cost allocators consistent with the working assumption for “**PQ FFLAS scope**”; and

A47.2 provide a summary of the forecast cost allocation outcome between **PQ FFLAS**, **ID-only FFLAS** and **services that are not regulated FFLAS** for the proposed **capex** and proposed **opex** for each **regulatory year** of **PQP1**.

A48 **Chorus** must also provide a summary of:

A48.1 An estimate of the lead time for **Chorus** to apply a different cost allocation scenario to that used in its proposed **base capex**, **connections capex**, and **opex**.

Cross-expenditure type programme or project specific information.

A49 **Chorus** must provide the following information:

A49.1 for each **regulatory year** of **PQP1**, proposed **opex**, proposed **base capex**, proposed **connection capex** or revenue (ie, where costs are taken to revenue) for:

A49.1.1 **projects** or **programmes** aimed at increasing the number of **PQ FFLAS end-users**, including incentive programmes and discount programmes; and

A49.1.2 **projects** or **programmes** aimed at retaining **PQ FFLAS end-users**, including incentive programmes, retention programmes and discount programmes;

A49.2 in relation to **direct fibre access services**:¹¹

A49.2.1 the actual or estimated number of **direct fibre access services** connections before 1 January 2022;

A49.2.2 the forecast number of **direct fibre access services** connections for each **regulatory year** of **PQP1**;

¹¹ We note that a DFAS service has not been declared yet under s 228 of the Act.

- A49.2.3 when responding to paragraph A49.2.1, **Chorus** may determine an appropriate reference date to report on, where the reference date used must be consistent with the information provided in response to paragraph A49.2.2;
- A49.3 proposed **base capex**, proposed **connection capex** or **opex** related to layer 1 PQ FFLAS;
- A49.4 forecast **capital contributions** in relation to each of the proposed **capex** in paragraphs A49.2, A49.6 and A49.3;
- A49.5 any proposed **base capex**, proposed **connection capex** or proposed **opex** related to innovation (where **Chorus** is able to propose which expenditure it considers relates to innovation);
- A49.6 provide a list of **direct fibre access services** **Chorus** proposes to offer during **PQP1**, including a summary of each service;
- A49.7 an overview of the **base capex** by each geographic breakdown proposed in the **regulatory templates**;
- A50 When responding to each of the requirements in paragraph A49 above; **Chorus** may make simplifying assumptions to provide a high-level estimate for each of the requirements. Where **Chorus** makes any such simplifying assumptions, **Chorus** must provide a summary of the key assumptions.

Audit requirements

- A51 **Chorus** must provide a report by an **auditor** that states whether:
- A51.1 any historical financial information that forms part of the **opex information** has been:
- A51.1.1 compiled, in all material respects, in accordance with the requirements of this notice;
- A51.1.2 properly extracted from **Chorus's** financial records sourced from its financial systems; and
- A51.1.3 audited in accordance with applicable auditing standards issued by the External Reporting Board in accordance with its functions under the Financial Reporting Act 2013 or any equivalent standards that replace these standards;
- A51.2 any historical non-financial information that forms part of the **opex information** has been:

- A51.2.1 compiled, in all material respects, in accordance with the requirements of this notice;
 - A51.2.2 properly compiled on the basis of the relevant underlying source information; and
 - A51.2.3 examined in accordance with applicable assurance standards;
- A51.3 any forecast financial information that forms part of the **opex information** has been:
- A51.3.1 compiled, in all material respects, in accordance with the requirements of this notice;
 - A51.3.2 properly compiled on the basis of disclosed assumptions and relevant underlying source information; and
 - A51.3.3 examined in accordance with applicable assurance standards; and
- A51.4 the forecast non-financial information that forms part of the **opex information** has been:
- A51.4.1 compiled in all material respects in accordance with the requirements of this notice;
 - A51.4.2 properly compiled on the basis of the disclosed assumptions and the relevant underlying source information; and
 - A51.4.3 examined in accordance with applicable assurance standards.

Attachment B Base capex and opex subcategories and connection types

Base capex sub-category groups	Base capex sub-categories	Priority base capex subcategories
Extending the Network	Augmentation	✓
Extending the Network	New Property Developments	✓
Extending the Network	UFB Communal	
IT and Support	Business IT	✓
IT and Support	Corporate	
IT and Support	Network & Customer IT	✓
Installations	Complex Installations	
Installations	Standard Installations	
Network Capacity	Access	✓
Network Capacity	Aggregation	✓
Network Capacity	Transport	✓
Network Sustain and Enhance	Field Sustain	
Network Sustain and Enhance	Relocations	
Network Sustain and Enhance	Resilience	
Network Sustain and Enhance	Site Sustain	

Connection type	Connection sub-type
Group 1	UFB1 - SDU - Greenfields
Group 1	UFB2 - SDU - Greenfields
Group 1	UFB1 - SDU - SDU off MDU
Group 1	UFB2 - SDU - SDU off MDU
Group 2	UFB1 - SDU - Aerial
Group 2	UFB2 - SDU - Aerial
Group 2	UFB1 - SDU - Haul/Conduit
Group 2	UFB2 - SDU - Haul/Conduit
Group 2	UFB1 - SDU - Surface Mount
Group 2	UFB2 - SDU - Surface Mount
Group 2	UFB1 - SDU - Civil
Group 2	UFB2 - SDU - Civil

Connection type	Connection sub-type
Group 3	UFB2 - MDU - Class 1 (2-5 DPs)
Group 3	UFB1 - MDU - Class 1 (2-5 DPs)
Group 3	UFB2 - ROW - Grade 1 (2-5 Buildings)
Group 3	UFB1 - ROW - Grade 1 (2-5 Buildings)
Group 3	UFB1 - Fibre Access
Group 4	UFB1 - ROW - Grade 2 (6-12 Buildings)
Group 4	UFB1 - MDU - Class 2 (6-12 DPs)
Group 4	UFB2 - MDU - Class 2 (6-12 DPs)
Group 4	UFB2 - ROW - Grade 2 (6-12 Buildings)
Group 4	UFB2 - MDU - Other
Group 4	UFB1 - MDU - Other
Group 5	UFB1 - ROW - Grade 3 (13-48 Buildings)
Group 5	UFB1 - MDU - Class 3 (13-48 DPs)
Group 5	UFB2 - MDU - Class 3 (13-48 DPs)
Group 5	UFB2 - ROW - Grade 3 (13-48 Buildings)
Group 6	UFB2 - MDU - Class 4 (48+ DPs)
Group 6	UFB1 - ROW - Grade 4 (49+ Buildings)
Group 6	UFB1 - MDU - Class 4 (48+ DPs)
Group 7	Hyperfibre installations
Group 8	Non-hyperfibre installations
Group 9	Complex installations
Group 10	Hyperfibre access (non-linear costs)

Opex sub-category groups	Opex sub-categories
Customer	Customer operations
Customer	Product, Sales & Marketing
Network	Maintenance
Network	Network Operations
Network	Operating costs
Support	Asset Management
Support	Corporate
Support	Technology

Attachment C Minimum content for quantitative information (regulatory templates)

RT01 – Forecast expenditure

- Links between RT01 and other templates in the suite are live-linked, rather than hard-coded.
- There is a title page, contents and overview sheets
- The form of the summary sheet
 - RP1 (2022, 2023 and 2024)
 - aggregate base capex, connections capex and opex
 - constant price numbers, the amount from CPI, RPE, FX and nominal numbers
 - Plus value of commissioned asset for base capex and connections capex
- The form of the capex sheet
 - Calendar years 2020 to 2026
 - 2020 and 2021 show total capex allocated
 - 2022 to 2024 show total capex, base capex and connection capex allocated
 - 2025 to 2026 show total capex allocated
 - Total capex and base capex split in rows for expenditure categories and sub-categories for calendar years in which they are shown
 - Total capex also split into 2 rows for base capex and connections capex
 - Columns for:
 - Capital expenditure excluding IDC at constant prices
 - IDC rate
 - IDC calculated
 - Capital expenditure including IDC at constant prices
 - CPI, RPE and FX (as calculated elsewhere)
 - Capital expenditure at nominal prices
 - WIP days
 - Commission value (for years 2021-2024)
- From of the historical capex sheet
 - Columns for calendar years for 2016 to 2019
 - Total unallocated capex split in rows for expenditure categories and sub-categories, in nominal terms
- The form of the opex sheet
 - Calendar years 2020 to 2026
 - Total opex split in rows for expenditure categories and sub-categories for calendar years
 - Columns for:

RT01 – Forecast expenditure

- Opex at constant prices
 - CPI and RPE
 - Opex at nominal prices
- For CY 2021 to 2026, rows are included presenting
 - combined opex and lease cost cash-flows,
 - lease-cost cashflows, and
 - opex
- Form of the historical opex sheet
 - Columns for calendar years 2016 to 2019
 - Unallocated operating costs split in rows for expenditure categories and subcategories, in nominal terms
- The form of the capex geographic split sheet:
 - Calendar years 2020 to 2024
 - Capex split into Capex IM geographic areas plus ‘National’, applying any necessary simplifying assumptions, consistent with clause A50 of the 18 November 2020 Notice to Supply Information
 - Sets of rows for constant prices and nominal

RT02 – Cost escalation

- Links between RT02 and other templates in the suite are live-linked, rather than hard-coded.
- There is a title page, contents and overview sheets
- The form of the ‘Escalation calc – forecast’ sheet
 - Calendar years 2019 to 2024
 - Total capex split in rows for expenditure categories and sub-categories
 - Will also include a line at the bottom of total capex for the connection capex variable adjustment (which will be zero on the forecast sheet)
 - Total capex also split into rows for base capex and connections capex for the years of RP1
 - Connections capex is further split between the ‘connection capex baseline allowance’ and the ‘connection capex variable adjustment’ (a line for the variable adjustment isn’t needed in RT01, which is purely forecast)
 - Total opex split in rows for expenditure categories and sub-categories
 - Columns for:
 - Capital expenditure including IDC at constant prices or Opex at constant prices (linked from RT01)
 - RPE (calculated using an index from another sheet)
 - CPI (calculated using an index from another sheet)

RT02 – Cost escalation

- FX (calculated on another sheet) – but only relevant for capex
 - Capital expenditure at nominal prices or Opex at nominal prices
- The form of the 'Escalation calc – ex-post' sheet
 - Is a copy of the 'Escalation calc – forecast' sheet, but linking to the ex-post CPI index and the ex-post FX adjustment calculation
 - RPE does not wash up, so we continue to use the forecast RPE indices
 - Will also include a line at the bottom of total capex for the connection capex variable adjustment (which will be equal to the same number in the variable adjustment line of the connection capex)
- The form of the 'Forecast vs ex-post CPI/FX' sheet
 - This has the same layout as the 'forecast' and 'ex-post' sheets, but is a simple mathematical difference between the two – showing any differences between the forecast and ex-post numbers.
- The form of the 'Capex – RPE indices' sheet
 - Sets out real price changes by year for the relevant RPE activities
 - Sets out percentage weightings of those RPE activities for each cost sub-category
 - Uses those percentage weightings to generate an RPE index number for each cost sub-category for each year 2019 to 2024, with a six-month figure used for 2020.
 - The index value in each case at 30 June 2020 is 1
- The form of the 'Opex – RPE indices' sheet
 - This is the same as the capex sheet, but for the opex sub-categories
- The form of the 'CPI forecast and index' sheet
 - Sets out a calculation of the forecast regulatory CPI index value for 2019 to 2024
 - The index value at 30 June 2020 is 1
 - This uses the methodology specified in the IMs for calculating forecast CPI
- The form of the 'CPI actual and index' sheet
 - This is identical to the forecast CPI sheet, but the using actual, ex-post Consumer Price Index number
- The remaining sheets calculate the FX adjustments. This is only relevant to capex. One sheet calculates any last-minute adjustment necessary to update to the FX rates forecast in the RP1 proposal. The other sheet calculates the ex-post FX adjustment, based on actual achieved rates.
 - Each sheet should specify for each year the NZD value of capex subject to FX, the relevant currency, the relevant FX rates for each year.

RT03 – Cost allocations

- There is a title page, contents and overview sheets

- The information below is to be provided for each year of RP1, for opex and total capex (i.e. the sum of base and connection capex)
- For the purposes of these requirements, a *first-order cost allocator* is a cost allocator that can be calculated by reference to allocator values alone. A *higher-order cost allocator* is a cost allocator that is a function of a fixed set of first-order and/or other higher-order cost allocators. There may or may not be higher-order cost allocators.
- For the purposes of presenting the breakdown below, *the most disaggregated level* means the level at which first-order cost allocators and asset allocators can be calculated by reference to the allocator values alone. That same level of disaggregation should also be presented in the calculation of higher-order cost allocators.
- A breakdown at the most disaggregated level showing:
 - rows for each unique 'cost category-subcategory-allocator type' combination, showing:
 - the unallocated amount (i.e. the sum of shared costs and costs which are directly attributable to either FFLAS or non-FFLAS)
 - the cost allocator or asset allocator
 - the PQ-FFLAS amount
 - the non-PQ-FFLAS amount (optionally, if that aids understanding of the allocation process), noting that this is just equal to the unallocated amount less the PQ-FFLAS amount
 - Any intermediate numbers or steps necessary to understand the calculation of the PQ-FFLAS amount
 - the calculation of higher-order cost allocators, if any.
- It is not necessary to show the calculation of first-order cost allocators and asset allocators.
- The calculation of higher-order cost allocators should be shown where applicable
- The detailed breakdown above should be aggregated in a summary table, showing the amounts relating to the regulatory template cost categories and subcategories. The table should show:
 - The aggregated unallocated amount and the aggregated PQ-FFLAS amount for each cost subcategory
 - The average effective cost allocator or asset allocator for each subcategory (being the simple ratio of the aggregated PQ-FFLAS amount to the aggregated unallocated amount)

RT04 – Connection capex

- Links between RT04 and other templates in the suite are live-linked, rather than hard-coded.
- That there's a title page, contents and overview sheets
- The form of the 'Breakdown' sheet
 - Calendar years 2022 to 2024
 - A section with a detailed breakdown into the disaggregated connection sub-types, showing the volume and unit cost for each year.
 - The values for the connection sub-types will be treated as confidential
 - The names of the types and subtypes will be included in a public version
 - A list of the connection capex groups ("connection type" per the IMs), showing for each for each year of RP1:
 - The connection type name (e.g. 'Group 1', 'Group 2')
 - Volume
 - Weighted average unit cost in constant prices
 - Percentage max/min compared to the average, to show how that group meets the "similar cost" requirement of the IMs
 - The total constant price connections capex for each year
 - The total nominal connections capex for each year
- The form of the 'Connections Capex adjustment' sheet
 - Calendar years 2022 to 2024
 - Forecast and actual volumes for each connection type
 - Unit costs are nominal
 - Forecast unit costs for each connection type
 - Those unit costs, adjusted for the disparity between forecast and actual CPI, FX and (in the case of non-linear costs) volume
 - Total forecast cost for each connection type, using the forecast volume and the forecast unit costs
 - Total ex-post cost for each connection type, using the actual volume and the adjusted forecast unit costs
 - In each case the total cost to be split between variable connection costs and non-linear connection costs
 - The difference between the total forecast cost and the total ex-post costs
- The form of the 'Unit costs real and nominal' sheet
 - This sheet includes sufficient information to show the calculation for each connection type for each year of RP1 of the forecast and ex-post nominal unit costs.
 - Uses forecast CPI and FX via links to RT02
- The form of the 'Non-linear unit costs' sheet
 - Provides the relationship (including any required parameters) between the relevant unit cost(s) and the volume in the form of either a mathematical formula or a table
- Provides a calculation of the relevant unit costs(s) for both the forecast volume and the actual, ex-post volume

Attachment D Information required for “February 2021 cost allocation information request”

D1 Under sections 221(1)(e) and (f) of the **Act**, **Chorus** must provide the following information in paragraphs D3-D5.

D2 **Chorus** must comply, where relevant, with the following parts of the **IM Determination** when responding to paragraphs D3-D5:

D2.1 Part 3 Subpart 2: Cost allocation;

D2.2 Part 3 Subpart 3: Asset valuation; and

D2.3 Part 3 Subpart 7: Capital expenditure.

General requirements for opex and capex cost allocation

D3 Provide the following information:

D3.1 A summary of key trends in common costs allocated to **PQ FFLAS** and **UFB FFLAS** (as if **PQ FFLAS** was applied) relative to 2019 for each **base capex sub-category** group, **connection capex sub-category** group and **opex subcategory** group;

D3.2 An explanation of the extent to which the key trends referred to in paragraph D3.1 are driven by:

D3.2.1 changes in **allocator types, cost allocators, asset allocators** and **allocator values**; and

D3.2.2 changes in other key drivers (eg scale), such that the effect of changes to cost allocation to **PQ FFLAS** and **UFB FFLAS** (as if **PQ FFLAS** was applied) and other drivers is separately identifiable.

D4 For proposed **base capex**, proposed **connection capex**, and proposed **opex**, provide a summary of key analysis, assumptions and inputs used by **Chorus** to forecast **cost allocators, asset allocators, proxy cost allocators** and **proxy asset allocators**.

Information required on cost allocation between PQ FFLAS and ID-only FFLAS

D5 In relation to allocating forecast common costs between **PQ FFLAS** and **ID-only FFLAS** (where **Chorus** must apply the **PQ FFLAS scope**), **Chorus** must:

D5.1 Provide forecast common costs (for proposed **base capex, connection capex, and opex**) allocated between **Chorus’s PQ FFLAS** and **ID-only FFLAS**; and

- D5.2 Provide forecast common costs (for proposed **base capex**, **connection capex**, and **opex**) for **ID-only FFLAS** broken down by each **LFCs'** UFB area (stating any key simplifying assumptions required).