

Public version

Fibre Price-Quality Path Determination 2021

[2021] NZCC 27

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Date of determination: 16 December 2021



Tristan Gilbertson
Telecommunications Commissioner

Dated at Wellington this 16th day of December 2021

COMMERCE COMMISSION

Wellington, New Zealand

Determination history		
Determination date	Decision Number	Determination name
16 December 2021	[2021] NZCC 27	Fibre Price-Quality Path Determination 2021

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Under Part 6 of the Telecommunications Act 2001, the Commerce Commission makes the following determination:

1. Title

1.1 This determination is the Fibre Price-Quality Path Determination 2021.

2. Commencement

2.1 This determination comes into force on 1 January 2022.

3. Application

3.1 This determination applies to **Chorus** during the **first regulatory period**.

4. Interpretation

4.1 In this determination, unless stated otherwise—

4.1.1 terms that are defined in the **Act** but not in this determination have the same meanings as in the **Act**;

4.1.2 terms that are defined in the **IM determination** but not in this determination have the same meanings as in the **IM determination**;

4.1.3 any reference to a period of time is interpreted in accordance with s 54 of the Legislation Act 2019;

4.1.4 any reference to legislation includes a reference to that legislation as amended, consolidated, or substituted;

4.1.5 any reference to terms from legislation in this determination has the meaning given in the applicable legislation at the time it is applied;

4.1.6 any reference to a Schedule is a reference to a Schedule in this determination, unless otherwise specified;

4.1.7 any reference to “includes” means “includes, but is not limited to”;
and

4.1.8 a word which denotes the singular also denotes the plural and vice versa.

4.2 In this determination, including in the Schedules, words or phrases in bold type have the following meanings:

A

access seeker	has the meaning given in s 5 of the Act ;
Act	means the Telecommunications Act 2001;
availability POI area	means a ‘UFB geographic area’ specified in the table under the heading “Chorus Limited

points of interconnection” in the *Notice of points of interconnection under section 231 of the Telecommunications Act 2001* issued by the **Commission** on 19 December 2019 that is served by one or more **POIs**, except that for the purposes of this definition:

- (a) the ‘UFB geographic areas’ specified in rows 6 (Palmerston North and Fielding) and 39 (Whanganui) are treated as one UFB geographic area;
- (b) the ‘UFB geographic areas’ specified in rows 12 (Hamilton) and 23 (New Plymouth) are treated as one UFB geographic area; and
- (c) the ‘UFB geographic areas’ specified in rows 24 (Oamaru) and 34 (Timaru) are treated as one UFB geographic area;

average number of connections means the sum of the **connections** on the first day of the calendar month, and the **connections** on the last day of the calendar month, divided by two;

average net unplanned downtime means the number of minutes (rounded to the nearest whole minute) calculated in accordance with the formula in paragraph (1) of Schedule 4;

B

bps means bits per second, and is a measure of the speed of network data transmission;

breach report means a report on a failure to comply with a quality standard and which contains the content specified in clause 9.4;

C

central office means a physical building or cabinet used to house a termination point of a **fibre network**;

Chorus has the meaning given in the **IM determination**;

Commission has the meaning given in s 5 of the **Act**;

connection	has the meaning given in paragraph (b) of the definition of “connection” in the IM determination ;
core fibre asset	has the meaning given in the IM determination ;
CPI	has the meaning given in the IM determination ;
E	
E-NNI	means an external network-to-network interface in relation to PQ FFLAS provided by Chorus ;
end-user	has the meaning given in s 5 of the Act ;
F	
fault	<p>(a) has the meaning given in paragraph (b)(i) of the definition of ‘fault’ in the IM determination; and</p> <p>(b) for the purpose of paragraph (b)(ii) of the definition of ‘fault’ in the IM determination, means a port utilisation equal to or greater than 95%;</p>
FFLAS	has the same meaning as ‘fibre fixed line access service’ defined in s 5 of the Act ;
fibre network	has the meaning given in s 5 of the Act ;
first regulatory period	means the three-year period beginning 1 January 2022 and ending 31 December 2024;
force majeure event	<p>means an event or circumstance beyond Chorus’s control which makes it impossible or illegal to provide PQ FFLAS, including:</p> <p>(a) fire, floods, storms, earthquake, or other act of God;</p> <p>(b) any act of a public enemy, war, riot, or act of civil or military authority;</p> <p>(c) nuclear, chemical or biological contamination; and</p>

- (d) any act of a third party (not being an employee, agent or subcontractor of **Chorus**) engaged in subversive or terrorist activity or sabotage;
but does not include an event to the extent that the effect of that event could have been substantially prevented, avoided, overcome or mitigated by:
- (e) implementation of any contracted business continuity or disaster recovery service, or any contingency plans agreed between **Chorus** and the **Commission** or which **Chorus** has represented it has in place;
- (f) **Chorus** exercising a reasonable standard of care; or
- (g) **Chorus** using information provided by the **Commission** or which is available in the public domain;

forecast allowable revenue	has the meaning given in the IM determination and is the amount calculated for each regulatory year in accordance with paragraph (3) of Schedule 2;
forecast building blocks revenue	means the amount specified in paragraphs (1) and (2) of Schedule 1;
forecast total FFLAS revenue	has the meaning given in the IM determination and is the amount calculated for each regulatory year in accordance with paragraph (5) of Schedule 3;

G

GAAP	has the meaning given in the IM determination ;
GST	has the meaning given in s YA 1 of the Income Tax Act 2007;

I

IM determination	means the <i>Fibre Input Methodologies Determination 2020</i> [2020] NZCC 21, including
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	any amendment in effect at the time this determination is made;
inOctets	means the number of octets received by a port ;
input methodology	has the meaning given in s 164(1) of the Act ;
L	
layer 1	has the meaning given in s 155ZS of the Act ;
layer 2	has the meaning given in s 155ZS of the Act ;
N	
net unplanned downtime	means unplanned downtime minus the length of time an access seeker or end-user experiences a fault to their PQ FFLAS attributable to any of the following: <ul style="list-style-type: none"> (a) a force majeure event; (b) non-diverse transport services; and (c) port utilisation equal to or greater than 95%;
non-diverse	means there is no alternate route to the POI available;
O	
octet	means a unit of digital information consisting of eight bits;
OLT	means an optical line terminal used for the provision of PQ FFLAS by Chorus ;
other FFLAS income	means income received by Chorus in respect of PQ FFLAS , excluding income from PQ FFLAS the price(s) of which are related to the quantity supplied;
outOctets	means the number of octets sent by a port ;
P	
pass-through cost	has the meaning given in the IM determination ;
POI	means a ‘specified point of interconnection’ listed in the <i>Notice of points of interconnection</i>

under section 231 of the Telecommunications Act 2001 issued by the Commission on 19 December 2019;

PON port	means the port on an OLT ;
port	means all physical, virtual and sub-interfaces for the exchange of traffic on a fibre network , excluding UNI, E-NNI, and PON ports ;
port utilisation	has the meaning given in the IM determination and is the amount calculated in accordance with paragraph (2) of Schedule 4;
PQ FFLAS	has the meaning given in the IM determination ;
price	means an individual fee or charge, in nominal terms exclusive of GST , for the provision of PQ FFLAS , and priced has a corresponding meaning;

Q

quantities	means the amount of PQ FFLAS forecast on a demonstrably reasonable basis to be provided, which corresponds to the units in which each tariff, fee, or charge (or individual component of each) is priced ;
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R

regulatory year	has the meaning given in the IM determination ;
RFC 2863	means <i>The Interfaces Group MIB Internet Official Protocol Standard RFC 2863</i> , issued by the IETF Interfaces MIB Working Group in June 2000;

S

section 193(2) notice	means the <i>Notice to supply information to the Commerce Commission under section 193(2) of the Telecommunications Act 2001 – Compliance statements for the first regulatory</i>
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period issued to **Chorus** on 16 December 2021 and published on our website;

T

transport service

means a **layer 1**, or managed throughput, fibre service provided over the **fibre network**, to transport voice and data traffic between **central offices**, including **central offices** that are also **POIs**;

U

UNI

has the meaning given in paragraph (b) of the definition of “UNI” in the **IM determination**;

unplanned downtime

has the meaning given in paragraph (b) of the definition of “unplanned downtime” in the **IM determination**; and

W

working day

has the meaning given in s 5 of the **Act**.

5. Price-quality path

5.1 **Chorus** must comply with the price-quality path, which consists of—

5.1.1 the price path specified in clause 7; and

5.1.2 the quality standards specified in clause 8.

6. Applicable input methodologies

6.1 The **input methodologies** that apply to this determination are those specified in Part 3 and clause 2.2.8 of the **IM determination**.

7. Price path

Maximum revenues that may be recovered by Chorus

7.1 For the purpose of s 194(2)(b) and s 195 of the **Act** and clause 3.1.1 of the **IM determination**, the maximum revenue that **Chorus** may recover in any **regulatory year** is **forecast allowable revenue** for that **regulatory year**.

Compliance with the price path

7.2 To comply with the price path for a **regulatory year**, **Chorus's forecast total FFLAS revenue** in that **regulatory year** must not exceed the **forecast allowable revenue** for that **regulatory year**.

8. Quality standards

Compliance with the availability quality standards

8.1 To comply with the **layer 1** availability quality standard for a given **availability POI area** in a **regulatory year**, **Chorus's average net unplanned downtime** must not exceed, for a **layer 1** aspect of a **fibre network**, 160 minutes in that **availability POI area**.

8.2 To comply with the **layer 2** availability quality standard for a given **availability POI area** in a **regulatory year**, **Chorus's average net unplanned downtime** must not exceed, for a **layer 2** aspect of a **fibre network**, 40 minutes in that **availability POI area**.

Compliance with the performance quality standard

8.3 To comply with the performance quality standard for a **regulatory year**, the percentage of **Chorus's ports** experiencing **port utilisation**, upstream or downstream, equal to or exceeding 90% in any five-minute interval in one or more calendar months in that **regulatory year**, must not exceed 0.12%.

9. Reporting requirements

Timeframes for providing information required under section 193(2) notice

- 9.1 For the purpose of s 194(2)(e) of the **Act**, **Chorus** must provide to the **Commission**—
- 9.1.1 the information specified in clause A3 of Attachment A of the **section 193(2) notice**—
- (a) in respect of **regulatory year** 2022, no later than 31 March 2022;
 - (b) in respect of **regulatory years** 2023 and 2024, no later than 30 August of the preceding **regulatory year**; and
 - (c) except when the information has already been provided under clause 9.1.1(a) or (b), at least 30 **working days** before the date on which **Chorus** intends to change the **price(s)** of an existing **FFLAS** product, or to introduce a new **FFLAS** product that is in all material respects the same as an existing **FFLAS** product; and
- 9.1.2 the information specified in clause A5 of Attachment A of the **section 193(2) notice** no later than six months after the end of **regulatory years** 2022, 2023, and 2024.

Breach reports for failure to comply with quality standards

- 9.2 If **Chorus** fails to comply with an availability quality standard under clause 8.1 or 8.2, **Chorus** must provide to the **Commission** a **breach report** within 5 months of the end of the **regulatory year**, with information in respect of each **availability POI area** giving rise to the breach of an availability quality standard.
- 9.3 If **Chorus** fails to comply with the performance quality standard under clause 8.3, **Chorus** must provide to the **Commission** a **breach report** within 5 months of the breach of the quality standard in clause 8.3.
- 9.4 A 'breach report' must contain—
- 9.4.1 the reasons for breaching the relevant quality standard, and supporting evidence for those reasons;
 - 9.4.2 an explanation of the cause of the breach;
 - 9.4.3 any independent review, investigation, or analysis into why **Chorus** breached the relevant quality standard; and
 - 9.4.4 an outline of any intended review, investigation, or analysis into why **Chorus** breached the relevant quality standard, which is planned but not yet completed.

Schedule 1: Forecast building blocks revenue

- (1) **Chorus's** 'forecast building blocks revenue' for **regulatory year** 2022 is \$676,000,000.
- (2) **Chorus's** 'forecast building blocks revenue' for **regulatory year** 2023 and **regulatory year** 2024 is calculated in accordance with the following formula—

$$FBBR_{t-1} \times (1 + \Delta CPI_t) \times (1 + \Delta Q_t)$$

where—

$FBBR_{t-1}$ is 'forecast building blocks revenue' for the previous **regulatory year**;

ΔCPI_t is the change in **CPI** calculated in accordance with paragraph (3); and

ΔQ_t is the forecast changes in **quantities** listed in Table 1.1 below.

Table 1.1 Forecast changes in quantities

Regulatory year 2023	6.10%
Regulatory year 2024	3.47%

- (3) ΔCPI_t is calculated in accordance with the following formula—

$$\Delta CPI_t = \frac{CPI_{Mar,t} + CPI_{Jun,t} + CPI_{Sep,t} + CPI_{Dec,t}}{CPI_{Mar,t-1} + CPI_{Jun,t-1} + CPI_{Sep,t-1} + CPI_{Dec,t-1}} - 1$$

where—

$CPI_{q,t-n}$ is the **CPI** for the quarter ending in q in the 12-month period n years prior to **regulatory year** t .

- (4) For the purpose of paragraph (3), the calculation for ΔCPI_t must use the most recent Reserve Bank Monetary Policy Statement available before 30 June of year $t-1$.
- (5) For the purposes of clause 2.2.8(8) of the **IM determination**, the depreciation method applicable to the **first regulatory period** is:
 - (a) for **core fibre assets**, a depreciation method consistent with **GAAP**; and
 - (b) for the **financial loss asset**, tilted annuity depreciation with a -13% real tilt rate and an asset life equal to the harmonic mean (being 14.2 years) of the asset lives of **core fibre assets**.

Schedule 2: Calculation of forecast allowable revenue

- (1) **Chorus** must calculate its **forecast allowable revenue**—
 - (a) in respect of **regulatory year** 2022, no later than 31 March 2022; and
 - (b) in respect of **regulatory years** 2023 and 2024, no later than 30 August of the preceding **regulatory year**.
- (2) When calculating the **forecast allowable revenue** for the purpose of paragraph (1), **Chorus** must prepare and use a demonstrably reasonable forecast of **pass-through costs**.
- (3) The ‘forecast allowable revenue’ for a **regulatory year** is the amount calculated in accordance with the following formula—

$$FBBR + FPTC + WUA$$

where—

FBBR is the **forecast building blocks revenue**;

FPTC is the forecast of **pass-through costs** made prior to 30 June of the year prior to that **regulatory year**; and

WUA is the wash-up amount, which is, for **regulatory years** 2022, 2023, and 2024, nil.

Schedule 3: Calculation of forecast total FFLAS revenue

- (1) **Chorus** must calculate or recalculate its **forecast total FFLAS revenue**—
- (a) in respect of **regulatory year** 2022, no later than 31 March 2022;
 - (b) in respect of **regulatory years** 2023 and 2024, no later than 30 August of the preceding **regulatory year**; and
 - (c) other than when the information has already been provided under paragraph (1)(a) or (b), at least 30 **working days** before any time **Chorus** intends to:
 - i. change the **price(s)** of an existing **FFLAS** product; or
 - ii. introduce a new **FFLAS** product that is in all material respects the same as an existing **FFLAS** product.
- (2) Any calculation or recalculation performed under paragraph (1)(c) must be in respect of the **regulatory year** in which the change in **price(s)** is intended to take effect or the new **FFLAS** product is intended to be introduced.
- (3) When calculating or recalculating the **forecast total FFLAS revenue** for the purposes of paragraph (1), **Chorus** must prepare and use a demonstrably reasonable forecast of the **quantities** and **other FFLAS income** for the **regulatory year** to which the forecast **prices** for each **regulatory year** will apply.
- (4) When recalculating **forecast total FFLAS revenue** for the purposes of paragraph (1)(c), the forecast of **quantities**—
- (a) may only be updated for an existing **FFLAS** product(s) for which the **price** is changing or a new **FFLAS** product that is in all material respects the same as an existing **FFLAS** product; and
 - (b) must not be updated for time periods before the date on which the change in **price** will take effect.
- (5) The ‘forecast total FFLAS revenue’ for a **regulatory year** is the amount calculated in accordance with the following formula—

$$\sum_i (P_i - D_i) \times FQ_i + FOFI$$

where—

- i* is each tariff;
- P* is the **price**;
- D* is any discount;

FQ is the forecast **quantities**; and
FOFI is forecast **other FFLAS income**.

Schedule 4: Calculation of quality standards

Calculation of average net unplanned downtime

- (1) 'Average net unplanned downtime' for a **regulatory year** in an **availability POI area** is calculated in accordance with the following formula—

$$\sum_{i=1}^{12} \frac{\sum NUD_i}{ANAC_i}$$

where—

NUD means **net unplanned downtime** for that calendar month in that **availability POI area**;

ANAC means **average number of connections** for that calendar month in that **availability POI area**; and

i means the calendar month, where 1 = January, ..., 12 = December.

Calculation of port utilisation

- (2) 'Port utilisation' is calculated as a percentage figure in accordance with the following formula—

$$\frac{octets \times 8}{5 \times 60 \text{ seconds} \times PS} \times 100$$

where—

octets means the number of **octets** at a **port**, being the greater of the **inOctets** or the **outOctets**, measured over a 5-minute interval in accordance with **RFC 2863**, and includes framing characters, but excludes Ethernet preamble, start frame delimiter, and interpacket gaps; and

PS means **port** speed and is measured in **bps**.