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**PUBLIC** version

# Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act

Reasonable grounds assessment final decision

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# **Associated documents**

Publication date	Reference	Title
13 October 2020	ISBN 978-1-869458-43-0	<u>Commerce Commission "Fibre input methodologies – Main final decisions – reasons paper" (13 October 2020)</u>
31 August 2023	ISBN 978-1-991085-31-3	Commerce Commission "Fibre price-quality regulation – Proposed process and approach for the 2025-2028 regulatory period" (31 August 2023)
7 December 2023	ISBN 978-1-99085-60-3	Commerce Commission "Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act – Draft assessment framework paper" (7 December 2023)
27 August 2024	ISBN 978-1-991287-59-5	Commerce Commission "Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act - Reasonable grounds assessment draft decision" (27 August 2024)

Commerce Commission Wellington, New Zealand

# Glossary

Table of terms	and abbreviations
The Act	Telecommunications Act 2001
AMR-WB	Adaptive Multi-Rate Wideband
ADSL	Asymmetric Digital Subscriber Line – a copper based technology that can provide basic fixed line broadband services
AMR	Annual Telecommunications Monitoring Report
ATA	Analogue Telephone Adapter
BBM	Building Blocks Methodology
BTG	Business Technology Group
Commission	The Commerce Commission
CPE	Customer Premises Equipment
СХС	Chorus Exchange Control
DFAS	Direct Fibre Access Services
DMR	Digital Microwave Radio
End-user	A person who is the ultimate recipient of a service or of another service whose provision is dependent on a service
FFLAS	Fibre Fixed Line Access Services
FLA	Financial Loss Asset
FWA	Fixed Wireless Access
GEO	Geostationary Orbit – satellite services which orbit the earth at an altitude of roughly 35,000km
GPON	Gigabit Ethernet Passive Optical Network
HFC	Hybrid Fibre-Coaxial
ICABS	Intra-Candidate Area Backhaul
ID	Information Disclosure
ISPANZ	Internet Service Providers Association of New Zealand
LEO	Low Earth Orbit – satellite services which orbit the earth at an altitude below 2,000km
LFC	Local Fibre Company (Chorus, Northpower, Enable and Tuatahi). Also referred to as 'regulated providers' throughout the paper
MAR	Maximum Allowable Revenue
MBNZ	Measuring Broadband New Zealand report
Mbps	Megabits per second
MNO	Mobile Network Operator
POI	Point of Interconnection
PON	Passive Optical Network
PONFAS	Passive Optical Network Fibre Access Services
PQ	Price-quality
PQP	Price-quality Path – PQP1 was the first such path for Chorus from 1 January 2022 to 31 December 2024 while PQP2 is the path that will apply for 1 January 2025 – 31 December 2028
RSP	Retail Service Provider
SMP	Substantial Market Power
SSNIP	Small but significant non-transitory increase in price
UFB	Ultra-Fast Broadband (government initiative)
UHD	Ultra-High Definition
VoIP	Voice over Internet Protocol

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# **Chapter 1** Introduction

## **Purpose and structure**

- 1.1 This paper sets out our final decision on whether there are reasonable grounds to start a deregulation review of one or more fibre fixed line access services (FFLAS) under section 210 of the Telecommunications Act (Act). This paper is structured as follows:
  - 1.1.1 Chapter 1 is an introduction;
  - 1.1.2 Chapter 2 outlines the assessment framework we have applied in reaching our final decision on whether there are reasonable grounds to start a deregulation review;
  - 1.1.3 Chapter 3 outlines our final decision; and
  - 1.1.4 Attachment A responds to submission points on our reasonable grounds assessment framework and draft decision.

# Final decision on investigating deregulation of FFLAS

Our final decision is that, at this time, reasonable grounds exist to start a deregulation review for Voice services and Transport services for all Local Fibre Companies (LFCs), as well as Point-to-point services and Co-location and interconnected services in Non-Chorus LFC areas. No reasonable grounds exist for Bitstream PON services, Unbundled PON services, and Connection services.

#### Requirement to consider deregulating FFLAS

- 1.3 Section 210 of the Act sets out that the Commerce Commission (**Commission**) may, at any time after the implementation date, review how one or more FFLAS are regulated under Part 6 if the Commission has reasonable grounds to consider that those services should no longer be:<sup>1</sup>
  - 1.3.1 regulated under Part 6 of the Act; or
  - 1.3.2 subjected to price-quality (**PQ**) regulation under Part 6 of the Act.
- 1.4 We are required to consider whether there are reasonable grounds to start a FFLAS deregulation review before the start of each regulatory period.<sup>2</sup> We refer to this step throughout this paper as the 'reasonable grounds assessment'.

<sup>&</sup>lt;sup>1</sup> Telecommunications Act 2001, section 210(1).

<sup>&</sup>lt;sup>2</sup> Telecommunications Act 2001, section 210(3).

1.5 We note that telecommunications markets are dynamic, and that we will remain attentive to market changes. As noted above, we can revisit regulation at "any time" if we consider there are reasonable grounds to do so.

## Our process to date

- 1.6 On 7 December 2023, we published a draft assessment framework paper that set out:<sup>3</sup>
  - 1.6.1 an assessment framework that we proposed to apply when we undertake a FFLAS deregulation review under section 210 of the Act;
  - 1.6.2 the proposed parameters for a reasonable grounds assessment and how they apply to a FFLAS deregulation review; and
  - 1.6.3 the type of evidence we proposed to consider when undertaking a reasonable grounds assessment.
- 1.7 We received submissions from nine stakeholders and cross submissions from five stakeholders on our draft assessment framework paper.
- 1.8 On 27 August 2024, we published our draft decision on whether there are reasonable grounds to start a FFLAS deregulation review.<sup>4</sup> This covered:
  - 1.8.1 our process to date;
  - 1.8.2 the assessment framework, including the legal and economic frameworks, used in reaching our draft decision;
  - 1.8.3 draft decisions on Voice services, Bitstream PON services, Point-to-point services, Unbundled PON services, Transport services, Connection services and Co-location and interconnected services; and
  - 1.8.4 updates to our assessment framework from the draft assessment framework paper following submissions and cross submissions.
- 1.9 We received submissions from eight stakeholders and cross submissions from five stakeholders on our reasonable grounds assessment draft decision.
- 1.10 Table 1.1 sets out our process to date for the reasonable grounds assessment.

Commerce Commission "Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act – Draft assessment framework paper" (7 December 2023).

Commerce Commission "<u>Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act – Reasonable grounds assessment draft decision</u>" (27 August 2024).

Table 1.1 Reasonable grounds assessment process

Milestone	Details	Date
Dueft	Decreased level form and the second form and	7.0
Draft assessment framework paper	Proposed legal framework, economic framework, geographic breakdown and service definitions	7 December 2023
Submissions	Submissions on our draft assessment framework received	16 February 2024
Cross submissions	Cross submissions on our draft assessment framework received	22 March 2024
Reasonable grounds draft decision	Draft decision as to whether there are reasonable grounds to consider how one or more FFLAS are regulated	27 August 2024
Submissions	Submissions on our draft decision received	24 September 2024
Cross submissions	Cross submissions on our draft decision received	15 October 2024
Reasonable grounds final decision (this paper)	Final decision as to whether there are reasonable grounds to consider how one or more FFLAS are regulated	19 December 2024

# **Next steps**

1.11 Following this final decision, we will develop a deregulation review plan and provide further details on the timing of this review during 2025.

# **Chapter 2** Assessment framework

## **Purpose and structure**

- 2.1 This chapter sets out the assessment framework, including the legal and economic frameworks, that we have used in reaching our final decision on whether there are reasonable grounds to start a FFLAS deregulation review under section 210 of the Act.
- 2.2 This chapter is structured as follows:
  - 2.2.1 Legal framework; and
  - 2.2.2 Economic framework.
- 2.3 We have had regard to submissions and cross submissions on the reasonable grounds assessment draft decision, and have made updates to the assessment framework accordingly. We have provided reasoning for our updates to the framework, along with a summary of additional submission points on our reasonable grounds assessment draft decision, and our response, in Attachment A.

# **Legal framework**

- 2.4 This section sets out the legal framework we have applied in reaching our final decision on whether there are reasonable grounds to start a deregulation review.
- 2.5 Since 1 January 2022, providers of regulated FFLAS have been subject to regulation under Part 6 of the Act. Chorus Limited (Chorus) is the only LFC subject to PQ regulation under Part 6 of the Act.
- 2.6 Section 210 of the Act sets out that the Commission may, at any time after the implementation date, review how one or more FFLAS are regulated if the Commission has reasonable grounds to consider that those services should no longer be:<sup>5</sup>
  - 2.6.1 regulated under Part 6 of the Act; or
  - 2.6.2 subject to PQ regulation under Part 6 of the Act.
- 2.7 The Commission must, before the start of each regulatory period (except the first regulatory period), consider whether there are reasonable grounds to start a review.<sup>6</sup>

<sup>&</sup>lt;sup>5</sup> Telecommunications Act 2001, section 210(1).

<sup>&</sup>lt;sup>6</sup> Telecommunications Act 2001, section 210(3).

# Purpose of Part 6 of the Act (FFLAS) - sections 166 and 162

2.8 The matters that we are required to consider under Part 6 when we make a recommendation, determination, or decision are outlined in section 166. This section outlines that when making a recommendation, determination, or decision under Part 6, we must do so in a way that best gives, or is likely to best give, effect to section 162, and to the extent relevant, to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services.

166 Matters to be considered by Commission and Minister

- (2) The Commission or Minister must make the recommendation, determination, or decision that the Commission or Minister considers best gives, or is likely to best give, effect-
  - (a) to the purpose in section 162; and
  - (b) to the extent that the Commission or Minister considers it relevant, to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services.
- 2.9 In reaching our view on whether there are reasonable grounds for commencing a review, we must make the decision that will give, or is likely to best give, effect to the purpose set out in section 162 of the Act:

162 Purpose

The purpose of this Part is to promote the long-term benefit of end-users in markets for fibre fixed line access services by promoting outcomes that are consistent with outcomes produced in workably competitive markets so that regulated fibre service providers-

- (a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
- (b) have incentives to improve efficiency and supply fibre fixed line access services of a quality that reflects end-user demands; and
- (c) allow end-users to share the benefits of efficiency gains in the supply of fibre fixed line access services, including through lower prices; and
- (d) are limited in their ability to extract excessive profits.

# FFLAS deregulation review and the requirement to undertake a reasonable grounds assessment – section 210

2.10 Section 210(1) of the Act provides that the Commission:<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> Telecommunications Act 2001, section 210(1).

may, at any time after the implementation date, review how 1 or more fibre fixed line access services are regulated under this Part if the Commission has reasonable grounds to consider that those services-

- (a) should no longer be regulated under this Part; or
- (b) should no longer be subject to price-quality regulation under this Part.
- 2.11 Section 210(2) allows the Commission to:<sup>8</sup>

without limitation, describe a service under review with reference to any one or more of the following:

- (a) the geographic area in which the service is supplied:
- (b) the service's end-users:
- (c) the service providers who seek access to the service:
- (d) the technical specifications of the service:
- (e) any other circumstances in which the service is supplied.
- 2.12 Section 210(3) sets out that the Commission must, before the start of each regulatory period (except the first), consider whether there are reasonable grounds to start a review.<sup>9</sup>
- 2.13 We have revised our approach to assessing whether there are reasonable grounds to start a FFLAS deregulation review in light of the submissions received on our reasonable grounds assessment draft decision.
- 2.14 We consider that sections 210(1) and (3) read as a whole direct us to consider whether a review is warranted on an objective basis, based on the information before us. We approach this in the round, having regard to whether there is at least a realistic possibility that following a review we would find that the services should no longer be regulated (or should no longer be subject to PQ regulation), having regard to the purpose in section 162 and, where relevant, the promotion of workable competition under section 166(2)(b).
- 2.15 We consider the Commission may also have regard to the costs and benefits of removing regulation and carrying out the review, although we have not taken these into account in this final decision for the reasons explained in Chapter 3.
- 2.16 We explain our changes and reasons in more detail in Attachment A.

<sup>&</sup>lt;sup>8</sup> Telecommunications Act 2001, section 210(2).

<sup>&</sup>lt;sup>9</sup> Telecommunications Act 2001, section 210(3).

- 2.17 Our assessment of whether there are reasonable grounds to start a review of FFLAS will consider the factors listed in section 210(4) of the Act:<sup>10</sup>
  - (4) A review may consider the following:
    - (a) whether competition to 1 or more fibre fixed line access services has increased or decreased in a relevant market:
    - (b) the impact of any increase or decrease on the ability of regulated fibre service providers to exercise substantial market power:
    - (c) whether the purpose of this Part would be better met if 1 or more fibre fixed line access services:
      - (i) were no longer regulated under this Part; or
      - (ii) were no longer subject to price-quality regulation under this Part.
- 2.18 Our assessment will not be limited to assessing whether there has been a significant change in market conditions; it will be forward looking, taking account of present and expected market conditions. Where it will inform our assessment, we may compare these market conditions to those that prevailed in 2018/19 when Parliament decided that FFLAS should be subject to Part 6 regulation.<sup>11</sup>
- 2.19 Where we conclude that reasonable grounds to start a review exist, there is no statutory timeframe in the Act for commencement or completion of a review. As indicated above, we will develop a deregulation review plan and provide further details on the timing of this review during 2025.
- 2.20 Given the requirement in section 210(3) to conduct a reasonable grounds assessment prior to start of each regulatory period, the Commission may conduct a further reasonable grounds assessment for any services that are not subject to a deregulation review at this time, at any time during the next regulatory period.<sup>13</sup>

We note that Part 6 was enacted in November 2018 and the implementation regulations were passed in November 2019.

<sup>&</sup>lt;sup>10</sup> Telecommunications Act 2001, section 210(4).

The second regulatory period ends on 31 December 2028 – "<u>Determination of the duration of the second regulatory period for Fibre Price-Quality Path Determination 2024</u>" (28 February 2023).

In the event the deregulation review has been carried out prior to the reasonable grounds assessment under section 210(3) and, following that review, regulation remains in place, those services that remain subject to regulation would also be included in the reasonable grounds assessment.

#### **Definition of FFLAS**

- 2.21 We consider that to conduct a reasonable grounds assessment we should describe FFLAS in section 210(2) terms (or divide into subgroups of services). Our starting point for this is to consider the definition of FFLAS in the Act, as applied in our existing determinations.<sup>14</sup>
- 2.22 "FFLAS" is defined in section 5 of the Act as follows:
  - (a) means a telecommunications service that enables access to, and interconnection with, a regulated fibre service provider's fibre network; but
  - (b) does not include the following:
    - (i) a telecommunications service provided by a regulated fibre service provider (F) if the ultimate recipient of the service is F or a related party of F (as if the test for related parties were the same as the test in section 69U, applied with any necessary modifications):
    - (ii) a telecommunications service provided, in any part other than a part located within an end-user's premises or building, over a copper line:
    - (iii) a telecommunications service used exclusively in connection with a service described in paragraph (ii).
- 2.23 In turn, "telecommunications service" is defined in section 5 as:

any goods, services, equipment, and facilities that enable or facilitate telecommunication.

2.24 "Telecommunication" is defined in section 5 as:

the conveyance by electromagnetic means from one device to another of any encrypted or non-encrypted sign, signal, impulse, writing, image, sound, instruction, information, or intelligence of any nature, whether for the information of any person using the device or not.

2.25 The definition of FFLAS in section 5 of the Act incorporates the broad definition of telecommunications service, which includes goods, services, equipment and facilities that both enable and facilitate telecommunication.<sup>15</sup>

Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), Attachment D.

Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), Attachment D.

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- 2.26 The definition of FFLAS is also qualified by the requirement that the telecommunications service enables access to, and interconnection with, a regulated provider's fibre network. Therefore, FFLAS are limited to services that relate to the fibre network of a regulated provider who is declared in regulations under section 226 of the Act to be subject to PQ or information disclosure (ID) regulation, or both.
- 2.27 We set out which services fall within the definition of FFLAS in our final decision on Chorus' first price-quality path (**PQP**). This is discussed in more detail below. The information we have received to date does not suggest we should reconsider this as part of this reasonable grounds assessment.

# Geographic area in which the service is supplied

- 2.28 As set out above, section 210(2) of the Act also gives the Commission (without limitation) the ability to describe a service under review by reference to certain factors. <sup>16</sup> One factor is the geographic area in which the service is supplied. In conducting our reasonable grounds assessment, we identify what geographic area we are considering.
- 2.29 The Telecommunications (Regulated Fibre Service Providers) Regulations 2019 (Regulations) were declared under section 226 of the Act. These Regulations prescribe that Chorus is the only LFC subject to PQ regulation under Part 6 of the Act. The services subject to PQ regulation are defined as, 'all FFLAS, except to the extent that a service is provided in a geographical area where a regulated fibre service provider (other than Chorus Limited) has installed a fibre network as part of the Ultra-Fast Broadband (**UFB**) initiative'.<sup>17</sup>
- 2.30 The Regulations also set out that Chorus, Enable Networks Limited (**Enable**),
  Northpower Fibre Limited (**Northpower**) and Tuatahi First Fibre Limited (**Tuatahi**)
  are subject to ID regulation for all FFLAS.<sup>18</sup>
- 2.31 We outline the service descriptions and geographic areas for each FFLAS category for the reasonable grounds assessment in Chapter 3. Throughout this paper, unless specified otherwise, we use the term 'urban' to describe areas where regulated FFLAS are present.
- 2.32 At this stage, based on the information we have received to date, we are using these descriptions to inform our reasonable grounds assessment only. It remains open to us to describe the services under review differently in light of future information.

<sup>&</sup>lt;sup>16</sup> Telecommunications Act 2001, section 210(2).

<sup>&</sup>lt;sup>17</sup> Telecommunications (Regulated Fibre Service Providers) Regulations 2019, regulation 6.

<sup>&</sup>lt;sup>18</sup> Telecommunications (Regulated Fibre Service Providers) Regulations 2019, regulation 5.

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#### **Economic framework**

- 2.33 This section sets out the economic framework we have applied in reaching our final decision on whether reasonable grounds exist to undertake a FFLAS deregulation review.
- 2.34 We have split the framework proposed in the draft assessment paper into four key steps.<sup>19</sup> These steps improve the clarity of the framework (including in response to submissions),<sup>20</sup> and are informed by the approach taken by historic Schedule 3 reviews,<sup>21</sup> but with a specific focus on the requirements under the Act regarding a FFLAS deregulation review, particularly section 210(4).<sup>22</sup>
- 2.35 We note that some differences exist between section 210 and Schedule 3.<sup>23</sup> However, in our view, an approach informed by historic Schedule 3 reviews remains appropriate due to the similarities between the relevant sections including their respective purpose statements,<sup>24</sup> and the requirement for both reviews to consider the forward looking role of regulation in telecommunications markets.
- 2.36 We note that while these steps provide a guide to our assessment, where it is impractical and unnecessary to undertake analysis at a step, we may not. For example, where no alternatives exist, we may not assess competition.
- 2.37 It remains open to us to define the economic framework differently in light of future information.

#### Step 1: Describe the services

2.38 Our first step is to describe the regulated services and the purpose they serve.

The economic framework remains similar to that in the draft assessment framework with structure changes for clarity and usability. Minor language and content changes have been made to ensure consistency with changes to the legal framework and with other similar assessment frameworks.

Feedback on our overall assessment framework was primarily positive, so we have retained the elements outlined in our draft, while amending the structure for clarity and alignment with previous Schedule 3 reviews. See Attachment A for specific feedback on our framework.

For example, identification of alternatives, an analysis of competition and consideration of the costs of regulation were undertaken in the previous National Roaming (2023), Mobile termination access service (2020) and Spark's resale voice services (2019) Schedule 3 reviews.

<sup>&</sup>lt;sup>22</sup> It is also informed by the proposed approach to the Copper Services Investigation being undertaken at the same time. Commerce Commission "Copper Services Investigation Approach paper" (22 April 2024).

<sup>&</sup>lt;sup>23</sup> Chorus submitted on the difference between a Schedule 3 review and one under section 210 in its submission on the draft assessment framework. Chorus "Submission on deregulation draft assessment framework" (16 February 2024) at [21.1], [21.2] and [21.2b].

Section 18 of the Act sets out the purpose for Schedules 1 to 3, and focuses on promoting competition in telecommunications markets for the long-term benefit of end-users of telecommunications services. Similarly, as set out in sections 162 and 166(2)(b), which provide the purpose for the FFLAS deregulation review, the focus is on promoting the long-term benefit of end-users in markets for FFLAS by promoting outcomes that are consistent with outcomes produced in workably competitive markets (section 162) and promoting workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services (section 166(2)(b)).

- 2.39 We start with the regulated service in question (which in this case is FFLAS, supplied at the wholesale level), and then look at how that service is being used to offer retail services to end-users.
- 2.40 Doing this involves considering three key elements:
  - 2.40.1 First, how the service is described in existing legislation and regulatory decisions, as this directs (and informs) the role the regulated service is intended to play in the market.
  - 2.40.2 Second, what the service is used for. There may be multiple uses at different levels of the value chain (ie, wholesale and retail) that are influenced by the service. Recognising that the service was initially regulated due to potential or actual end-user harm, it will be important to consider how services are supplied to end-users using the regulated service.
  - 2.40.3 Third, the geographic constraints to providing the service (the geographic area(s)), which, alongside step 2 below, informs whether competition analysis should be undertaken at a national level, or if a more granular approach is more appropriate.
- 2.41 In this reasonable grounds assessment, we determine the geographic constraints on a service-by-service basis at the start of our analysis of each category of services.
- 2.42 In describing the services, we may identify dependencies between services, such as where one is unlikely to be used without another, or where deregulation of one service is impractical without deregulation of others (due to actual or potential consumer harm). Such dependencies may guide how we undertake our analysis.

# **Step 2: Identify alternatives**

2.43 The next step is to identify alternative services comparable to the defined regulated services.

2.44 We consider any alternatives that could provide direct competitive constraints to FFLAS (ie, wholesale alternatives). We also consider any alternatives that could provide indirect competitive constraints, including in downstream retail markets.<sup>25</sup>

A downstream market is one further down the supply chain. In the case of telecommunications, the retail broadband market (where the end-user buys a broadband service) is downstream from the wholesale broadband market (where a wholesaler sells a broadband service to an RSP who then on sells it to the end-user).

- 2.45 We view steps 1 and 2 as defining the market for the purposes of assessing reasonable grounds.<sup>26</sup>
- 2.46 FFLAS are used by retail service providers (**RSPs**) to offer telecommunications services to residential and business end-users, either directly (for example, using fibre bitstream) or indirectly (for example, using transport and co-location services).

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2.47 Due to the nature of the fibre rollout in New Zealand, there are limited direct alternatives (wholesale) for regulated FFLAS. Instead, competitive constraints are likely to be provided indirectly, by services in downstream retail markets (such as the retail markets for voice and broadband services). As such, we primarily focus on downstream retail markets for analysis of the competitive constraints that exist for each FFLAS category. Where relevant, we identify and consider the competitive constraints any direct alternatives provide.

# **Step 3: Competition assessment**

- 2.48 The third step involves consideration of the effectiveness of competition. In line with section 210(4) and our forward looking approach, we consider how much competition each FFLAS faces and could be expected to face into the foreseeable future.
- 2.49 We then consider the effectiveness of that competition in constraining the ability of regulated providers from exercising any substantial market power (**SMP**). We deem that a business has SMP when its actions are not effectively constrained by competition. For example, a business with SMP can profitably hold prices above competitive levels for a sustained period of time.<sup>27</sup>
- 2.50 The extent to which alternative services, and associated networks, represent a competitive constraint on FFLAS will depend on a number of factors:
  - 2.50.1 whether alternatives rely on regulated FFLAS;
  - 2.50.2 the market structure;
  - 2.50.3 the extent to which identified alternatives represent (sufficiently) close substitutes to regulated FFLAS including their availability and performance (the same applies for alternatives in downstream markets constraining services using FFLAS); and

Defining markets is a distinct step in several review frameworks. However, we deem it most appropriate to combine this into steps 1 and 2 for ease of understanding. For further information on market definition, see Commerce Commission, "Mergers and acquisitions Guidelines" (May 2022), see Chapter 3.

<sup>&</sup>lt;sup>27</sup> See Commerce Commission, "Misuse of Market Power Guidelines" (March 2023) for more detail.

- 2.50.4 actual demand and switching behaviour by access seekers (RSPs and endusers).
- 2.51 We take expected future developments into account in assessing competition and the ability of the regulated providers to exercise SMP.

### Step 4: Testing alignment with the purpose of the regulation

- 2.52 Finally, we consider whether there is at least a realistic possibility that following a review we would find that the services should no longer be regulated (or should not be regulated by PQ regulation) with regard to the purpose in section 162 and, where relevant, the promotion of workable competition under section 166(2)(b).<sup>28</sup>
- 2.53 As part of this we consider the extent to which any competitive constraints identified are dependent on access to regulated FFLAS and would be materially affected by any deregulation.
- 2.54 We may consider multiple counterfactuals to regulation as part of the reasonable grounds test.

#### **Evidence for the assessment**

- 2.55 In the draft assessment framework paper, we set out the type of evidence we proposed to consider when undertaking the reasonable grounds assessment.
- 2.56 We received several submissions outlining additional evidence or information we should consider as part of our reasonable grounds assessment and have incorporated these into our draft decision.<sup>29</sup>
- 2.57 We use evidence relating to the following in our assessment of reasonable grounds:
  - 2.57.1 whether alternatives rely on regulated FFLAS;
  - 2.57.2 actual uptake (market share) of FFLAS and alternatives (including in downstream markets);
  - 2.57.3 whether alternatives represent a sufficiently close substitute to FFLAS (in terms of key price and non-price performance characteristics);

We define workable competition as "Workable competition is encapsulated by the concept of economic efficiency, which includes technical (productive) efficiency, allocative efficiency and dynamic efficiency. In a practical context, workable competition implies the existence of sufficient rivalry between firms to push prices close to efficient costs (including the cost of capital and thus a reasonable level of profit)". This is used in the Commission "Fibre Input Methodologies Final Decisions Reasons paper" (13 October 2020) at [2.216.2].

Vector "Submission on deregulation draft assessment framework" (16 February 2024) at [16]; One NZ
 "Submission on deregulation draft assessment framework" (16 February 2024) at [12]; and BTG
 "Submission on deregulation draft assessment framework" (16 February 2024) at [2].

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- 2.57.4 the availability of alternatives and whether they are physically present in areas where there are regulated fibre networks;
- 2.57.5 the capacity of alternatives to serve new demand (in the event that endusers wanted to switch away from FFLAS); and
- 2.57.6 actual demand and switching behaviour by access seekers.
- 2.58 This evidence has been primarily sourced from existing Commission data sources, and unless specified otherwise, is as of 30 June 2023 or for the 12 months to 30 June 2023. We primarily use data collected via the Rural Connectivity Study and Industry Questionnaire, and refer to such data throughout the paper as 'Commission data'. We have used the Measuring Broadband New Zealand (MBNZ) reports and the Commission's Annual Telecommunications Monitoring Reports (AMR), and reference each where relevant throughout the paper. Where available, we have also used relevant information publicly available, such as Chorus' Quarterly Connections updates.
- 2.59 In our assessment of reasonable grounds, we also consider factors like the entry or exit (or proposed entry/exit) of different providers, and other significant developments such as regulatory changes (including the proposed removal of restrictions on Non-Chorus LFCs).<sup>31</sup>
- 2.60 We are aware that our various data sources were collated at different points in time. We have had regard to how current our data is when undertaking our analysis. Where possible and appropriate, we have aligned data timepoints (as noted earlier, we often use 30 June 2023 as that is the reporting date for most of our data).

The Commission data collected through the Rural Connectivity Study and Industry Questionnaire were used to form the figures and stats in the 2023 AMR, however, where relevant we directly reference figures also used in the 2023 AMR to provide visibility and consistency. All figures used, including in graphs, are in nominal terms unless specified otherwise.

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MBIE "<u>Discussion document: Enhancing telecommunications regulatory and funding frameworks</u>" (May 2024).

# Chapter 3 Final decision on the existence of reasonable grounds

# **Purpose and structure**

- 3.1 This chapter sets out our final decision on whether there are reasonable grounds to start a FFLAS deregulation review under section 210 of the Act.
- 3.2 This chapter is structured as follows:
  - 3.2.1 summary of our final decision (in Table 3.1);
  - 3.2.2 context for the assessment;
  - 3.2.3 description of FFLAS (step 1 of the economic framework); and
  - 3.2.4 assessment as to whether reasonable grounds exist for each FFLAS category through:
    - 3.2.4.1 the identification of alternatives (step 2);
    - 3.2.4.2 considering competition in the relevant markets including the effect of competition on SMP (step 3); and
    - 3.2.4.3 testing alignment with the purpose of the regulation (step 4).

Table 3.1 Summary of our final decision

	, or our man account
FFLAS category	Final decision
Voice services	Reasonable grounds exist to undertake a deregulation review of Voice services.
Bitstream PON services	No reasonable grounds exist to undertake a deregulation review of Bitstream PON services.
Point-to-point services	Reasonable grounds exist to undertake a deregulation review of Point-to-point services in Non-Chorus LFC areas.
Unbundled PON services	No reasonable grounds exist to undertake a deregulation review of Unbundled PON services.
Transport services	Reasonable grounds exist to undertake a deregulation review of Transport services.
Co-location and interconnected services (Co-location services)	Reasonable grounds exist to undertake a deregulation review of Colocation and interconnected services in Non-Chorus LFC areas.
Connection services	No reasonable grounds exist to undertake a deregulation review of Connection services.

# Context for the assessment

3.3 We are conducting this assessment at a time when New Zealand is in a state of transition from legacy copper to alternative broadband and voice networks and services.

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- 3.4 We have seen significant year on year reductions in the number of copper connections across the country. This has been most pronounced in areas where fibre is available. There are now about 52,000 urban premises with access to fibre who remain on copper for voice and/or broadband.<sup>32</sup> This is down from 108,000 premises as of 30 September 2023.<sup>33</sup> Chorus is actively reducing the number of these connections, subject to the requirements of the Copper Withdrawal Code, and aims to turn off the copper network in fibre areas by the end of 2026.<sup>34</sup>
- 3.5 Fibre has emerged as the dominant replacement for copper. Fibre is now available to 87% of New Zealand households and New Zealand has become a global leader in the uptake of fibre with close to 76% uptake across UFB areas. Fibre 300 is the most popular fibre plan, and most popular broadband service, reflecting what most consumers currently demand in terms of speed and performance of their service. Fibre 300 is the most popular broadband service, reflecting what most consumers currently demand in terms of speed and performance of their service.
- 3.6 We have seen the rise of wireless broadband technologies in recent years. Fixed wireless access (**FWA**) has emerged as an alternative to fibre for a segment of the broadband market. More recently, Low Earth Orbit satellite (**LEO**) has given rural consumers a level of performance that cannot be matched by legacy technologies, resulting in the rapid disruption of the broadband market outside fibre areas.
- 3.7 Consumers continue to demand more data and faster speeds, resulting in usage requirements continuing to grow every year and an overall trend towards higher speed broadband plans.<sup>37, 38</sup> Although there has been some 'downsizing' in the current economic climate (to lower speed fibre or 4G FWA services) the dominant trend in consumer demand is towards higher speed plans that, in most areas of the country, can only currently be provided on fibre networks.

<sup>&</sup>lt;sup>32</sup> Chorus "Q1 FY25 Connections Update" (11 October 2024), slide 7.

<sup>&</sup>lt;sup>33</sup> Chorus "Q1 FY24 Connections Update" (17 October 2023), slide 6.

Chorus 'Chorus delivers solid full-year result as Kiwis continue to favour fibre broadband' (21 August 2023).

<sup>&</sup>lt;sup>35</sup> Crown Infrastructure Partners "Quarterly Connectivity Update Q2 2024" (June 2024) at [3].

<sup>&</sup>lt;sup>36</sup> Commerce Commission "2023 Annual Telecommunications Monitoring Report" (15 August 2024) at [8].

The monthly average data use on fibre for Chorus consumers grew from roughly 387GB per month in June 2020 to 623GB per month in June 2024. Chorus "Q4 FY24 Connections Update" (9 July 2024), slide 9 and Chorus "Q4 FY20 Connections Update" (10 July 2020), slide 9.

With the ongoing migration away from copper, technological change (including the Internet of Things), and continued growth in demand for bandwidth, we expect demand for fibre services to continue to increase in the future. This could either be directly through bitstream products, or indirectly as an input to FWA services (that require greater site densification for each successive generation of mobile technology).

3.8 Ever increasing consumer demand means that broadband networks need ongoing investment to stay ahead of demand and meet the future growth and performance expectations of end-users. This can be delivered at low incremental cost on fibre networks, whereas FWA networks are more prone to capacity constraints that are relatively more expensive to relieve. This is particularly the case with 4G FWA which, for a number of reasons, is limited in its ability to accommodate demand-side changes and compete with fibre services. 5G FWA, which is being rolled out across the country, represents a step-change in network capacity and performance. However, at this stage, it is unclear what impact 5G FWA will have on the market.

# **Description of services**

- 3.9 We set out our proposed description of FFLAS for the purpose of a reasonable grounds assessment under section 210 of the Act in our draft assessment framework paper and reasonable grounds assessment draft decision.<sup>39</sup> The proposed services are based on the FFLAS categories used in our PQP1 final decision.<sup>40</sup> These are set out in Table 3.2.
- 3.10 We believe these service descriptions remain appropriate for use in our reasonable grounds assessment and have used them to form our final decision.

Table 3.2 Categories of services within the scope of FFLAS

Category	Technical	Retail side/End-user
Voice services	Services to enable the delivery of telephony and low-speed data services over a fibre network (including, but not limited to, anchor service, baseband, analogue telephone adapter (ATA) voice).	Provides RSPs with a connection to supply end-users with the ability to make and receive voice calls.
Bitstream PON services	Single or multi-class point-to-multipoint fibre access services (including, but not limited to, anchor service, Bitstream services, Bitstream 2, 3, 3A, 10GPON, NGPON and multicast).	Bitstream 2 product gives RSPs a fast and reliable connection so end-users can watch, listen, play, post and chat without interruption or slowing down.  Bitstream 3 provides RSPs' business customers with a business grade internet connection that supports multiple locations, delivering high levels of guaranteed bandwidth to support business critical applications like voice, videoconferencing and cloud-based apps.

Commerce Commission "Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act – Draft assessment framework paper" (7 December 2023), Chapter 3.

Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision" (16 December 2021), Attachment D at [324].

Category	Technical	Retail side/End-user
Unbundled PON services	Point-to-multipoint layer 1 fibre access services (including, but not limited to, PON fibre access services ( <b>PONFAS</b> ) and unbundled fibre services).	PONFAS allows RSPs to put their own electronics at each end of a fibre circuit, which can then be used to create innovative new products or services.
Point-to-point services	Single, multi-class or layer 1 point-to-point fibre access services (including, but not limited to, Bitstream 4, enhanced Bitstream 4, High-Speed Network Services, Bandwidth Fibre and Direct Fibre ( <b>DFAS</b> )).	Bitstream 4 provides RSPs business customers with similar benefits to Bitstream 3, but over a dedicated fibre, which offers the speed and security required by large organisations.  DFAS provides dark fibre access that gives RSPs the ability to develop complex services and products to high-value customers requiring tailored equipment configurations.
Transport services	Layer 1 or managed throughput fibre services provided over the fibre network, to transport voice and data traffic between central offices, including central offices that are also points of interconnection (POI) (including, but not limited to Intra-Candidate Area Backhaul (ICABS), tail extension service and inter-CO fibre services; but excluding national / inter-candidate area backhaul services).	ICABS provides RSPs with dark fibre connectivity between exchanges within the same candidate area – this can be used with other access products to achieve end-to-end and infrastructure solutions.  The mobile access service provides RSPs with a high-speed, high traffic class point-to-point bitstream service suitable for connectivity to mobile cell sites and other similar non-building access points.
Co-location and interconnected services (Co-location)	Network equipment accommodation and management services including network interconnection services (including, but not limited to, central office and POI co-location services, handover connections, Ethernet handover connections, tie cables and jumpering).	Central Office and POI co-location allows RSPs to install equipment in exchanges. Chorus' property services include a range of options for electricity, back-up power, seismic support and air conditioning, depending on the exchange.
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, but not limited to, pre-wiring, cable and duct fit-out).	N/A

# Primary vs ancillary FFLAS

3.11 The seven FFLAS categories comprise a comprehensive suite of wholesale access to the regulated fibre networks, connecting the end-user's premise to the fibre handover point.

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- 3.12 The FFLAS which connect directly to the end-user's premise, namely Voice,
  Bitstream PON, Point-to-point and Unbundled PON services, are of 'primary'
  importance as they directly enable access. Transport, Co-location and
  interconnected, and Connection services do not directly connect to the end-user's
  premises but are necessary to support the FFLAS which do.
- 3.13 In effect, Transport, Co-location and interconnected, and Connection services are 'ancillary' services in that they are only used in conjunction with one of the primary FFLAS connecting to an end-user's premise.
- 3.14 However, competition in the markets for these ancillary services can, and does in places, exist. This means that, even if we found no reasonable grounds to start a deregulation review into any of the four primary FFLAS, we could still find reasonable grounds to start a deregulation review into any of the ancillary services.

# Geographic area definition

- 3.15 The potential geographic area of FFLAS is anywhere a regulated provider has installed a fibre network. However, as stated in our draft assessment framework paper, we expect there are differing levels of competition across different parts of New Zealand where fibre networks are present.<sup>41</sup> Describing the geographic areas in which competition for FFLAS differs allows us to assess FFLAS markets more accurately for the existence of reasonable grounds.
- 3.16 In our draft assessment framework paper, we proposed a description of the geographic area in which the FFLAS is supplied.<sup>42</sup> This approach was based on reference to three areas:<sup>43</sup>
  - 3.16.1 Chorus PQ;
  - 3.16.2 Chorus ID only; and
  - 3.16.3 Non-Chorus LFCs (Northpower, Tuatahi and Enable).
- 3.17 Rather than continue to take a blanket approach to the definition of geographic areas for all FFLAS, in our reasonable grounds assessment draft decision paper, we instead described the geographic area for each category of FFLAS as part of our analysis in reaching our draft decision. This allowed us to be more specific regarding the market(s) in scope of the reasonable grounds assessment for each category of FFLAS. We have retained this approach for our final decision.

Commerce Commission "Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act – Draft assessment framework paper" (7 December 2023) at [4.5].

Commerce Commission "Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act – Draft assessment framework paper" (7 December 2023) at [4.1] – [4.13].

Commerce Commission "Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act – Draft assessment framework paper" (7 December 2023) at [4.12].

#### Voice services

#### **Final decision**

3.18 Our final decision is that there are reasonable grounds to start a deregulation review of Voice services.<sup>44</sup> This is a change from our draft decision and is explained below.

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#### Stakeholder views

- 3.19 We received submissions on our draft decision for Voice services from Chorus, Tuatahi, Enable, Spark and 2degrees.
- 3.20 Chorus and Tuatahi disagreed with our draft decision of no reasonable grounds to start a deregulation review of Voice services. Chorus submitted that it is inappropriate to not conduct a deregulation review or deregulate because the costs of deregulation are too high as this creates an unreasonable bias towards the status quo and allows regulation that is no longer fit for purpose to continue.<sup>45</sup> Tuatahi disagreed with the notion that the costs of deregulation would outweigh the benefits and stated that any change in compliance costs would be insignificant.<sup>46</sup>
- 3.21 On the other hand, Enable agreed that, for ID, the compliance costs of applying cost allocation would outweigh the benefits of deregulation given the small proportion of revenue made up by voice services.<sup>47</sup> Similarly, Spark, in its cross submission, submitted that the costs of undertaking a deregulation review would outweigh any potential benefits of deregulation.<sup>48</sup>
- 3.22 Chorus further submitted that continued regulation of Voice services would be contrary to Part 6 which has a purpose to regulate services with little or no competition, or little or no prospect of competition.<sup>49</sup> Tuatahi also submitted that demand for Voice services has been limited, constituting about 0.1% of its revenue and that continued regulation of Voice services would be contrary to the purpose of Part 6 regulation.<sup>50</sup>

<sup>&</sup>lt;sup>44</sup> Under section 210 of the Act.

<sup>&</sup>lt;sup>45</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [64].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [8.5].

<sup>&</sup>lt;sup>47</sup> Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [17].

Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [8].

<sup>&</sup>lt;sup>49</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [64].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [9.3].

# Reasons for our final decision

The market for Voice services and identification of alternatives

3.23 The regulated FFLAS is the voice input (including anchor services, baseband and ATA) which can be used by RSPs to offer fibre-based retail voice telecommunications services to end-users.

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- 3.24 We consider the current market in which Voice services compete to comprise wholesale services which can be used to offer retail voice services to end-users.
- 3.25 Demand for wholesale voice services is derived from the demand for retail voice services. We consider the retail voice market to include services which provide endusers with the ability to make and receive reliable voice calls.<sup>51</sup>
- 3.26 The regulated Voice services offer particular features through the ATA, such as dial tone, 64kbps quality, and direct current power. However, we do not consider these features to be determinative of the current retail voice market.<sup>52</sup>
- 3.27 Our view is that voice over internet protocol (**VoIP**) services, which are provided over a broadband connection to a physical handset (whether that be fibre or any other broadband access technology), are likely included in the wider retail voice market as they allow end-users the ability to make and receive reliable voice calls.
- 3.28 The same likely holds for mobile voice services which, as of June 2023, are available to 99.99% of urban New Zealand households.<sup>53</sup> Our view is that they are likely in a wider retail voice market.
- 3.29 Accordingly, multiple retail alternatives are geographically present where the regulated wholesale Voice services are supplied. Our view is that a single geographic market, defined by where FFLAS exists (the footprint of the regulated networks), is most appropriate.<sup>54</sup>

While not a specific determinant of the market, we use 'reliable' here to mean both available (ie, uptime – the percentage of time a system is up and running) and of sufficient quality.

An ATA is a device for connecting traditional analogue telephones, fax machines, and similar customerpremises devices to a digital telephone system or a voice over IP telephone network. The ATA provides dial tone, ringing generator, direct current power, caller identity data and other standard telephone line signalling to the telephone connected to a modular jack.

<sup>&</sup>lt;sup>53</sup> Commission data.

Our view is that competition does not differ depending on the type of regulation present (eg, Chorus PQ vs Chorus ID) as set out in our draft assessment framework paper, but rather simply based on where regulated FFLAS is located vs where it is not. As we are only looking at areas where regulated FFLAS exists (ie, the footprint of regulated fibre networks), a single geographic market is appropriate. We do not believe our conclusions would differ if we were to look at competition on a more granular or narrow geographic level.

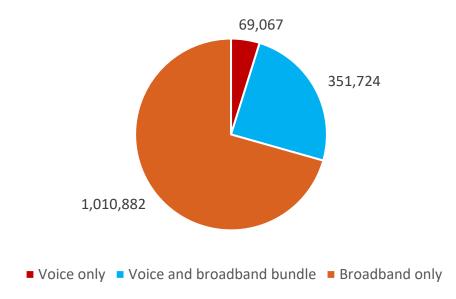
# State of competition in the market

- 3.30 As demand for Voice services is derived from the downstream retail voice market, we assess competition for retail voice services and the competitive constraint applied to voice services provided using the regulated wholesale Voice input.<sup>55</sup>
- 3.31 We consider that assessing competition in this market requires analysis of:
  - 3.31.1 the market structure;
  - 3.31.2 whether alternatives represent close substitutes; and
  - 3.31.3 consumer demand and switching behaviour.

## Market structure

3.32 Consumers are moving away from landline services. Nationwide, landline connections across all access technologies (including broadband-voice bundles) have continued to decline in 2023, down 33% on 2022. <sup>56</sup> 420,791 landline connections remain in urban areas, with urban landline connections making up 83% of those remaining nationwide. <sup>57</sup> 77% of these remaining urban landlines are residential rather than business connections. <sup>58</sup>

Figure 3.1 Share of urban fixed line voice connections by plan type (June 2023)<sup>59</sup>



No retail alternatives rely on Voice services, however as noted in the Transport section, FWA services (including FWA voice services) often rely on regulated Transport services (mobile access) for delivery.

Nationally, there were 757,031 landlines as of June 2022, compared with 504,973 landline connections as of June 2023 (Commission data).

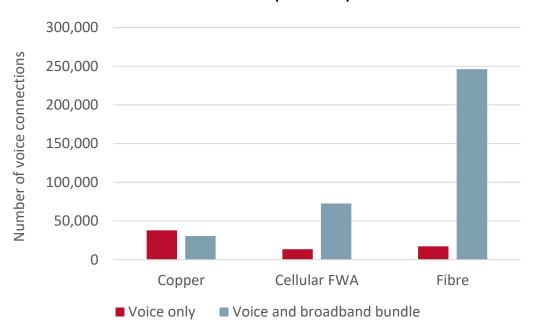
<sup>&</sup>lt;sup>57</sup> Commission data.

<sup>&</sup>lt;sup>58</sup> Commission data.

<sup>&</sup>lt;sup>59</sup> Commission data.

- 3.33 Voice only connections represent a small proportion of the remaining urban landline connections (16%), with over half of these (56%) being copper voice only connections. The other 351,724 connections, as shown in Figure 3.1, are part of voice / broadband bundles.<sup>60</sup> This is similar for urban fibre connections, with 76% of such connections naked broadband, while only 1.6% are fibre voice only connections.<sup>61</sup>
- 3.34 These remaining landline connections are provided across a range of technologies as shown in Figure 3.2.<sup>62</sup>

Figure 3.2 Share of urban fixed line voice connections by technology and plan type (June 2023)



As of June 2023, 263,000 fibre voice services were VoIP-based, with only 4,000 voice connections utilising Chorus' voice anchor service – 0.95% of total urban voice connections and 1.52% of urban voice connections over fibre. The fibre split between VoIP and Chorus' voice anchor service is determined by the commercial decisions of RSPs retailing fibre voice services. Additionally, there are 86,583 urban voice connections over FWA (including cellular and non-cellular). 44

These figures exclude 126k fibre connections where we received no or unreliable data on plan type. Commission data.

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<sup>60</sup> Commission data.

There are 340 connections over 'other' technologies such as GEO, non-cellular fixed wireless. Commission data.

RSPs can either self-provide VoIP over the end-user's broadband connection or purchase a dedicated voice input from Chorus that offers the non-price characteristics outlined in paragraph 3.26.

<sup>&</sup>lt;sup>64</sup> Commission 2023 AMR.

3.36 By comparison, as at 30 June 2023, there were 6.6 million mobile connections across the country, with 10.9 billion mobile voice call minutes and 6.2 billion text messages sent during the year.<sup>65</sup>

#### Close substitutes

- 3.37 We then consider whether retail voice alternatives represent close substitutes to retail services using the regulated Voice services as an input. This involves consideration of both price and non-price performance characteristics.
- 3.38 Table 3.3 summarises voice service pricing over different technologies, split by voice only or bundled with broadband, and provides the retail cost of a fibre only landline (using the regulated service as an input) for comparison.

Table 3.3 Summary of retail voice plans by technology (November 2024)<sup>66</sup>

Voice technology	Monthly price	NZ Landlines c/p/min	NZ Mobiles c/p/min	Notes
Fibre (voice only)	\$49 or \$66	\$0.24	\$0.39	Mercury (\$49) and Spark (\$66) are the only RSPs who sell a fibre voice only plan.
FWA (voice only)	-	-	-	There are no FWA voice only plans available.
Copper (voice only)	\$68.72	\$0.24	\$0.39	Only Spark offers this service, and only where a wireless or fibre landline is not available.
Fibre (bundled)	From \$55	Unlimited	\$0.39	Landlines are able to be added to an existing fibre broadband connection from \$10 a month.
FWA (bundled)	From \$35	\$0.24	\$0.39	Landlines are able to be added to an existing FWA broadband connection from \$10 a month.
Mobile (bundled)	\$8 – \$90	Free – minute caps on some plans	Free – minute caps on some plans	Mobile plans primarily offer a minute cap rather than cents per minute rates. Most mobile plans do not differentiate between calls to NZ landlines and mobiles.

<sup>&</sup>lt;sup>65</sup> Commission 2023 AMR.

Pricing data taken from the websites of Spark, One NZ, 2degrees and Mercury on 11 November 2024. See <a href="https://www.spark.co.nz/online/shop/mobile-plans">www.spark.co.nz/online/shop/mobile-plans</a>; <a href="https://www.2degrees.nz/mobile-plans/prepay">https://www.2degrees.nz/mobile-plans/prepay</a>; and <a href="https://www.mercury.co.nz/mobile">https://www.mercury.co.nz/mobile</a>.

- 3.39 There are numerous mobile voice plans available to consumers, in a wide price range, making comparisons difficult. This suggests that the prices of voice services using other technologies (including mobile and VoIP) act as a constraint on the extent to which Voice service prices could be increased without reducing demand. A review of mobile plans available on RSP websites indicates:
  - 3.39.1 The average mobile plan cost is \$43.83 (median \$42.50). While FWA (bundled) costs from \$35, even with low calling activity, this brings the cheapest FWA within the same price range.<sup>67</sup>
  - 3.39.2 Both prepaid and postpaid mobile consumers are able to purchase a mobile plan for \$35 or less which provides unlimited minutes to New Zealand and Australia mobiles and landlines.
  - 3.39.3 In the year to June 2023, consumers in urban areas with residential landlines used 56 minutes of calling per month. There are mobile plans from \$8 which contain enough minutes to meet this demand.<sup>68</sup>
  - 3.39.4 In the year to 30 June 2023, the average mobile prepaid consumer used 68 minutes monthly.<sup>69</sup> On alternative technologies, that usage would cost (per month) from \$61.24 on Fibre Voice service, \$81.52 over copper, \$65 on fibre (bundled) and \$61.32 on FWA (bundled).
  - 3.39.5 In the year to 30 June 2023, the average postpaid consumer used 211 minutes monthly.<sup>70</sup> On alternative technologies that usage would cost (per month) from \$86.98 on Fibre Voice service, \$115.84 over copper, \$65 on fibre (bundled) and \$65 on FWA (bundled).<sup>71</sup>

<sup>25</sup> minutes of national landline calls (at \$0.24), plus 25 minutes of mobile calls (at \$0.39) costs \$15.75, which when added to \$35 base cost, results in an overall cost of \$50.75.

Most plans offer a minimum of 100 minutes. This is nearly twice the average landline usage, assuming calls are only to NZ landlines and mobiles, not internationally.

<sup>&</sup>lt;sup>69</sup> Commission 2023 AMR.

<sup>&</sup>lt;sup>70</sup> Commission 2023 AMR.

For our analysis in this paragraph and the one above, we took the cheapest monthly cost for a voice service on each technology, then multiplied the cheapest c/p/min rate (NZ national landline calling) by the average monthly mobile minutes used. This is indicative only and does not reflect actual expected cost. The fibre \$55 plan includes unlimited free minutes to NZ national landlines.

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- 3.40 From a pricing perspective, retail voice services offered over FFLAS are comparable with voice services offered over copper and FWA.<sup>72</sup> However, mobile voice services largely offer better value for money than all other voice services, with much cheaper minutes to a wider range of devices (eg, mobiles and landlines) and locations (eg, many mobile plans include calling to Australian landlines and mobiles).
- 3.41 This analysis suggests that the prices of retail voice services using other technologies (including mobile and VoIP) act as a constraint on the extent to which Voice prices could be increased without reducing demand noting, however, that there may be a residual demand for landline telephone services (whether through Voice or VoIP) where users do not see mobile as a substitute.
- 3.42 We have no voice quality data available to compare non-price performance between voice services on the different technologies. We are aware of quality concerns from some parties regarding VoIP services, but we have no data to confirm or refute that.<sup>73</sup> As VoIP quality is highly dependent on the stability and bandwidth of the internet connection, we expect the quality of VoIP services to differ depending on the technology used, with fibre-based VoIP expected to provide better quality than FWA or LEO due to the technology involved.<sup>74</sup>
- 3.43 Some of the non-price performance metrics from the Bitstream PON discussion (such as latency, latency under load and disconnections) provide some indication of voice quality, but do not provide a complete picture (for example, quality also depends on location and capacity).
- 3.44 While we outline above that a specific kbps is not a relevant consideration for the market, we would consider a voice connection of 24kbps or above to be in this market.<sup>75</sup> This means that we would expect the above-listed technologies to enable users to make and receive reliable voice calls, noting that quality will still vary between end-users.

A voice connection is available over One NZ's HFC network, with plans starting at \$68 per month with a home phone connection able to be added for an additional \$10. We have not included HFC in this table as it is not available for the majority of New Zealanders. One NZ website accessed 11/11/2024.

The Rural Women NZ submission on our Copper Services Investigation Approach paper indicated possible quality issues when users had been switched off copper landlines to VoIP over copper Asymmetric Digital Subscriber Line (ADSL) connections. We note that this reasonable grounds assessment focuses on urban areas, where we would expect very few ADSL connections to remain. See Rural Women NZ "Submission on Copper Services Investigation approach paper" (22 May 2024) at [2]. We have some indirect measures of characteristics of technologies which can impact VoIP, but no direct measures VoIP quality.

See Bitstream PON section, in particular paragraphs 3.119 – 3.123, for discussion of performance metrics of different broadband networks.

Adaptive Multi-Rate Wideband (**AMR-WB**) is a wideband extension of the Adaptive Multi-Rate codec which provides high-quality speech encoding at low bitrates. AMR-WB operates at variable bitrates from 6.6kbps to 23.85kbps and is commonly used in 3G and 4G mobile networks, as well as in VoIP and video conferencing applications. We have taken the highest bitrate as our view of a reliable voice connection. See: https://www.gsma.com/newsroom/wp-content/uploads/IR.36-v4.0-2.pdf.

Our view is that mobile voice provides competitive constraint on Voice services. In urban areas, mobile services are widely available (with no capacity or availability constraints), there are high numbers of users, and they represent good value for money in regard to upfront and ongoing pricing. Mobile voice services can also by definition be used on the move, providing benefits and functionality the other technologies cannot provide. However, mobile voice services also have downsides, such as the need to be in within service coverage and limited battery life of handsets.

### Consumer demand and switching behaviour

- 3.46 As outlined in our market structure discussion above, consumers are switching away from landline services towards mobile services, with this trend going on for many years. The number of chargeable fixed voice call minutes has decreased 71% from 5.47 billion to 1.55 billion since 2012/13, while mobile voice call minutes has grown 127% from 4.8 billion to 10.9 billion over the same period.<sup>77</sup> Landline-only connections still exist across both urban and rural areas, but disproportionately remain outside fibre areas where there may be no mobile coverage or where households prefer a back-up connection (including a VoIP service) if they are a long distance from neighbours.<sup>78</sup>
- 3.47 We do not have any further data on end-user switching behaviour between voice services, including between technologies. We will consider sourcing this data, potentially in the form of a representative sample, to inform a deregulation review.<sup>79</sup>

#### Ability to exercise substantial market power

3.48 A business has SMP when its actions are not constrained by competition. We believe it is probable that workable competition exists in the market for retail voice services and that it is probable that regulated providers are sufficiently constrained such that they do not have SMP in relation to the regulated wholesale Voice services.

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There are two constraints, one at the user level from mobile and one at the RSP level between VOIP and Voice services, the latter being some sort of supply side substitutes.

<sup>77</sup> Commission data.

Of the approximately 40k residential voice only connections that remain, around 35% are in rural areas, where only 13% of New Zealand's population live.

<sup>&</sup>lt;sup>79</sup> It is possible that this information may lead to refinement of the market definition, for example, to define a separate market for consumers who have specific characteristics that means they see a landline as a complement to a mobile voice service. However, we do not consider that concluding on any such refinement is required for the purposes of our reasonable grounds assessment.

# Alignment with the purpose of the regulation – sections 162 and 166(2)(b)

- 3.49 We have considered whether there is at least a realistic possibility that following a review we would find that Voice services should no longer be regulated (or should not be regulated by PQ regulation), having regard to the purpose in section 162 where relevant, the promotion of workable competition under section 166(2)(b).
- 3.50 We consider that the promotion of workable competition under section 166(2)(b) is relevant for our final decision on whether there are reasonable grounds to start a deregulation review for Voice services because of the broader impact on wider markets for telecommunications services, in this case, the market for retail voice services.
- 3.51 Our assessment of the state of competition for retail voice services leads us to the view that workable competition probably exists.<sup>80</sup> We expect this competitive state to continue, or increase, without regulation of Voice services.
- 3.52 Turning to section 162, our view is that it is probable that providers are currently limited in their ability to extract excessive profits due to the level of competition that likely exists.<sup>81</sup>
- 3.53 Our draft decision set out views on the impact of Voice deregulation in the context of ongoing regulation of other FFLAS, in particular Bitstream PON. We identified that deregulation of Voice services may provide regulated providers with some commercial flexibility and compliance cost savings which could support improved efficiency.<sup>82</sup>
- 3.54 However, we also noted that, based on our experience of developing and implementing the new regime, we were concerned that net compliance costs would likely increase as a result of deregulation.
- 3.55 This was because it would be necessary to separate voice-related costs from the FFLAS that remained regulated, as well as develop approaches to allocation of common overhead costs between regulated and unregulated services. Also, because Voice services are provided using the same infrastructure as other FFLAS services (eg, Bitstream PON), this would increase the complexity of regulating FFLAS.
- 3.56 In terms of regulatory burden, we anticipated the level of cost and effort involved would be comparable to that of allocating Chorus' FFLAS costs between PQ-regulated and ID only FFLAS. This would impact LFCs who do not currently need to allocate costs within FFLAS assets the most.

<sup>80</sup> As per section 166(2)(b).

<sup>&</sup>lt;sup>81</sup> As per section 162(d).

As per section 162(c).

- 3.57 In response to our draft decision, we did not receive any submissions quantifying the possible net compliance costs increase. However, the parties likely to bear these costs argued that they would in fact be much lower than the Commission expected. In light of these submissions and the absence of any quantification to take into account at this stage, we consider that compliance costs should be considered as part of a deregulation review process, which will allow us to seek further evidence on this issue.
- 3.58 For the reasons explained above, in our view, there is therefore at least a realistic possibility that following a review we would find that Voice services should no longer be regulated (or should not be regulated by PQ regulation) in order to best give effect to section 162 and 166(2)(b). Accordingly, our final decision is that there are reasonable grounds to start a deregulation review of Voice services.

#### **Bitstream PON services**

#### **Final decision**

- 3.59 Our final decision is that there are no reasonable grounds to start a deregulation review of Bitstream PON services.<sup>83</sup> This is unchanged from our draft decision.
- 3.60 There is some evidence of competition in broadband services. However, we remain concerned that, in the absence of regulation, the degree of competition from FWA and other alternative technologies will be insufficient to constrain the regulated fibre providers from exercising market power due to significant differences in technical capabilities of other broadband technologies relative to fibre (eg, speed, latency, peak time performance).
- 3.61 However, even if we have under-estimated the competitive constraint from FWA and other alternative technologies on Chorus' ability to raise prices now, we are concerned any such constraints will be temporary. Current regulated prices and revenues are a function of the size of the various building block components that reflect Chorus' costs. A significant component of these costs is the financial loss asset (FLA), which covers past losses prior to the start of PQP1. In PQP1 we took a decision to depreciate the FLA as quickly as possible due to its risky nature, which has the effect of materially pushing up regulated prices and revenues.
- 3.62 In PQP2 FLA depreciation remains high and we have partly offset this by deferring depreciation on some other assets. The net effect is that regulated fibre revenues retain a significant component of recovery of past losses. We expect Chorus' Bitstream PON prices to drop in the medium term as the FLA is depreciated away. We do not expect FWA prices to drop in the same way, as competition between mobile operators is likely to currently drive FWA prices towards competitive levels.

Under section 210 of the Act.

3.63 There are also possible services offering greater competition in future, such as 5G FWA, but at the current time it is not possible to gauge the effectiveness of this competitive constraint. Consequently, we have concluded now is not the right time for a deregulation review of Bitstream PON services.

#### Stakeholder views

3.64 We received submissions on our draft decision on Bitstream PON services from Chorus, Tuatahi, Enable, Spark, One NZ, BTG, ISPANZ and 2degrees. Chorus, Tuatahi and Enable disagreed with our draft decision, while Spark, One NZ, BTG, ISPANZ and 2degrees supported our draft decision that there were no reasonable grounds to start a deregulation review of Bitstream PON services.

## Chain of substitution and competitive constraints

- 3.65 Spark, One NZ, BTG, ISPANZ and 2degrees supported our view that there were minimal competitive constraints across FFLAS, including on Bitstream PON services.
- 3.66 Chorus, on the other hand, argued that the presence of a chain of substitution means that FWA services provide a competitive constraint on fibre pricing. 84,85 Chorus also provided cross-price elasticity values for its products, that were within or close to the minimum range required to constrain Chorus' pricing. 6 This, according to Chorus, was clear evidence of competitive constraints in the market, both directly from FWA, and indirectly via an unbroken chain of substitution. 7 As a result, Chorus emphasised that its pricing strategy was based on the effect of wholesale prices on consumers who are at the margin, not the broader subset of consumers for whom alternative broadband services may not be a close substitute.
- 3.67 Enable also asserted that its pricing across the main services showed there was no significant price premium for faster broadband speeds due to competitive constraints, mainly from FWA.<sup>89</sup>

The chain of substitution concept asserts that a group of products may form a single relevant market when products that are not in adjacent markets or are not direct substitutes, indirectly constrain each other. For example, in a group of products A to D, where consumers consider products such as A and B, or C and D as direct substitutes, it is possible for product A to indirectly constrain the pricing of product D through a chain of substitution because products B and C are also considered direct substitutes by some consumers. In such a case, A and D may be in the same relevant market as the other products in the chain where sufficient marginal customers exist to maintain that chain of substitution and there are no breaks in the chain.

Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [68] – [69].

<sup>&</sup>lt;sup>86</sup> Cross-price elasticity of demand, in this case, would measure the percentage change in the number of connections of product B (switching), as a result of an increase in the price of product A. Positive and high cross-price elasticity indicates close substitution between two products.

<sup>&</sup>lt;sup>87</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [74].

<sup>&</sup>lt;sup>88</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [80].

<sup>89</sup> Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [52].

- 3.68 This view was also shared by Tuatahi, who submitted that the reluctance of consumers to pay the current retail premium for fibre broadband means the retail price of higher speed services is constrained by the retailer-controlled retail market price of alternative broadband services. 90 Tuatahi believed that there was evidence of competitive constraints on fibre services from FWA and other technologies, including satellite and Digital Microwave Radio (DMR), with the retail FWA price playing the role of anchor price in this chain of substitution.
- 3.69 In its cross submission, One NZ indicated that to the extent that a chain of substitution existed, it would extend at most from FWA to Chorus' entry level fibre products, but that there was no evidence of a chain of substitution between FWA and higher specification fibre services.<sup>91</sup>
- 3.70 Tuatahi further submitted that evidence of competitive constraints in the Bitstream PON services market included:
  - 3.70.1 Tuatahi's Get Fibre Ready policy of proactively connecting end-users' premises before an RSP has ordered a wholesale service;
  - 3.70.2 fibre disconnection data; and
  - 3.70.3 responses to FWA competition by fibre providers performing speed upgrades.<sup>92</sup>
- 3.71 Frontier Economics, in its report for Chorus, stated that there are market features that impose competitive constraints on Chorus' pricing, including product differentiation, the inability to price discriminate, horizontal integration by key customers, low consumer switching costs, and low barriers to entry and expansion.<sup>93</sup>

#### Non-price characteristics of FWA

3.72 BTG supported our view that data speeds, data caps, latency, consistency of service and drop-outs are key factors in considering substitutability of services. BTG also pointed out that 4G networks are unable to cater for all or most users in any given urban area and that a third of the reviewed FWA towers have demand management restrictions attached to the 4G services.<sup>94</sup>

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [3.6].

<sup>&</sup>lt;sup>91</sup> One NZ "Cross submission on FFLAS deregulation review – RGA draft decision" (15 October 2024) at [13].

<sup>&</sup>lt;sup>92</sup> Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [3.6].

Frontier Economics "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [3.1].

<sup>94</sup> BTG "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [1] – [2].

- 3.73 Chorus, however, disagreed with our view that the non-price characteristics of FWA 4G plans such as slower speeds and worse latency do not compare well to the fibre plans, thus limiting substitutability. Such a view, according to Chorus, incorrectly assumes that consumers use the retail broadband service to the full extent of its speed and latency limits, and that consumers do not trade-off price versus quality when considering which product serves their purposes best.<sup>95</sup>
- 3.74 According to Enable, RSPs do not include information on non-price characteristics of 4G FWA such as latency on their websites due to a lack of end-user interest in this. Similarly, while Hybrid Fibre-Coaxial (HFC) upload speeds are less than Fibre Max, upload usage is around 7.6% of download usage, showing it is of less relevance to end-users. <sup>96</sup> Enable believes the limited capacity of the 4G network does not reduce its competitive impact on fixed line fibre since there is evidence of mobile network operators (MNOs) having the ability and commercial motivation to continue to invest in site densification. <sup>97</sup>

# High market shares of LFCs

- 3.75 Chorus submitted that despite the market shares of fibre broadband within each of the regulated providers' network boundaries being 75% or higher, high market shares in and of themselves do not necessarily indicate market power. 98
- 3.76 Tuatahi supported this idea by submitting the results of a switching survey indicating the switching behaviour of respondents who disconnected from fibre when moving to a new premise or new service.<sup>99</sup>
- 3.77 One NZ, on the other hand, shared our concerns regarding high LFC market shares, pointing out that any potential competition that might exist from alternative technologies is limited, as demonstrated by the high market shares of around 75%, held by the LFCs within their geographic boundaries.<sup>100</sup>

<sup>&</sup>lt;sup>95</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [77] –

<sup>&</sup>lt;sup>96</sup> Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [2].

<sup>&</sup>lt;sup>97</sup> Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [39].

<sup>&</sup>lt;sup>98</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [75].

<sup>&</sup>lt;sup>99</sup> Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [7.9]

One NZ "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [5].

# Future impact of 5G FWA

- 3.78 Spark shared our view that there was uncertainty regarding the future impact of 5G technology enabled services and stated that the Commission was not required to solve this uncertainty. One NZ was also of the view that it would not be justified for us to start a deregulation review based on the prospects of 5G FWA, whose impact on competition remains unclear. Along the same lines, BTG questioned the LFCs' understanding of FWA and also indicated that it was too early to understand the impact of 5G on the market.
- 3.79 However, Enable argued that there were numerous signals pointing to rapid 5G uptake and capacity increases in the next few years, offering higher speeds and lower latency. Enable cited plans by RSPs to increase fixed wireless broadband uptake as evidence of its competitive impact. According to Enable, for example, One NZ intended to migrate 25% of its customers to FWA by 2024, while Spark indicated it had moved 30% of its fixed line broadband customers to FWA during 2024. As such, fixed wireless broadband will continue to grow, from 3% market share in 2016 to 17% in 2022, and as predicted by GlobalData, to increase to 26.3% by 2028.<sup>104</sup> Enable also asserted that our maps show that 4G covers 100% of its network, 5G covers 60 70%, and HFC covers around 40%.<sup>105</sup>
- 3.80 Tuatahi stated that our view that Bitstream PON services are not constrained by FWA services is not supported by evidence such as:
  - 3.80.1 the increase in investment made by MNOs to increase 4G availability; and
  - 3.80.2 the public statements made by MNOs regarding the fibre-like characteristics of 5G FWA and their intention to migrate their customers onto FWA. 106
- 3.81 Tuatahi argued that the growth of 5G would compound the historical and current churn impact of FWA competition on fibre services.<sup>107</sup>
- 3.82 In its cross submission, Tuatahi stated that the public statements made by Spark and One NZ are enough for us to conclude that these providers have a clear objective and have allocated capital to accelerate and substantially invest in increasing 5G FWA services. 108

<sup>&</sup>lt;sup>101</sup> Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [7].

One NZ "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [6].

<sup>&</sup>lt;sup>103</sup> BTG "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [2].

Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [27.1] – [27.3].

<sup>&</sup>lt;sup>105</sup> Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [22].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [9.4].

<sup>&</sup>lt;sup>107</sup> Tuatahi "Cross submission FFLAS deregulation review – RGA draft decision" (15 October 2024) at [4.2].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [42].

# Market definition

3.83 One NZ agreed with our approach of carrying out a single product market assessment for broadband services instead of separating the market into lower speed and higher speed services as suggested by the LFCs. 109

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- 3.84 Tuatahi instead advocated for the delineation of the Bitstream PON services market into fast (up to and including 300Mbps download), faster (301Mbps to 1Gbps), and fastest (above 1Gbps) speeds, to allow for analysis of the specific competitive constraints on each separate product group.<sup>110</sup>
- 3.85 From a geographic market definition perspective, Tuatahi suggested geographic markets that correspond with the footprint of the LFCs' respective FFLAS networks.<sup>111</sup>

#### Reasons for our final decision

The market for Bitstream PON services and identification of alternatives

- 3.86 Bitstream PON services comprise single or multi-class point-to-multipoint fibre access services (including, but not limited to, anchor services, Bitstream services, Bitstream 2, 3, 3A, Bitstream accelerate services, 10GPON, NGPON and multicast). The different Bitstream PON services provided over these passive fibre networks (such as speeds and traffic classes) are made possible by a variety of electronic or active elements deployed by the regulated providers. This makes the fibre networks scalable.
- 3.87 This wide variety of Bitstream PON services are wholesaled by the regulated providers to RSPs, who use the services as inputs to supply retail services, such as broadband, voice (VoIP), and videoconferencing to residential and business endusers.
- 3.88 We consider the current market in which Bitstream PON services are supplied to comprise wholesale services which can be used to offer retail broadband services to end-users.
- 3.89 Demand for wholesale broadband services is derived from the demand for retail broadband services. We have considered whether the retail broadband market is one that contains services which provide end-users with a reliable broadband connection or whether any specific features (such as speed) create different (sub) markets for retail broadband services (and thus for wholesale broadband services).

One NZ "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [5].

<sup>110</sup> Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [9.10].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [53] – [56].

- 3.90 Several parties have submitted that a chain of substitution exists such that competition present in lower speed products constrains the ability for the regulated fibre providers to increase prices across their portfolio of products. Such a chain of substitution would imply a single product market. We have taken this into account when examining the extent of market power held by the regulated fibre providers.
- 3.91 For the purposes of this assessment, we have used a single product market for broadband services. We have considered the main alternative of a separate market for lower speed broadband services and do not believe that would change our conclusions. We have examined the extent of competitive constraint different products offer, the impact of the chain of substitution and also questions on the potential competitive constraint from newer services directly in the competitive assessment. Given the conclusion we have reached we do not believe our conclusions would turn on market definition.
- 3.92 Alternative retail broadband services are provided over non-regulated fibre networks, as well as a number of non-fibre technologies, including copper, FWA (4G or 5G), HFC, Geostationary Orbit satellite (**GEO**) and LEO satellite.
- 3.93 Our view is that these are all in the retail broadband market. For the purposes of this final decision, we have adopted a market that is broad enough to encompass these alternatives.
- 3.94 We note that the market for retail broadband services is dynamic with consumers weighing up price and performance considerations and choosing the service they believe best meets their preferences which evolve over time. This changing consumer demand ensures the supply side does not remain static, with the frequent introduction of new services, and the withdrawal or retirement of legacy services. We have factored that into our assessment of market power.
- 3.95 In terms of defining the geographic area of the market for wholesale broadband services (and thus our analysis of the downstream retail broadband market), we considered whether competitive conditions are likely to vary by areas, such as in relation to pricing.

- 3.96 In the case of Chorus, which is subject to PQ regulation, the obligation to charge the same price (regardless of location) for providing FFLAS that are, in all material respects the same, prevents it from responding to different competitive conditions that may exist in areas covered by its FFLAS network. In other words, Chorus is prohibited from differential geographic pricing for FFLAS, and we have seen no compelling information on significant differences within Chorus's areas to justify an area by area analysis. Therefore, for the purposes of this report we have not defined the relevant geographic market more granular than the obligation.
- 3.97 The Non-Chorus LFCs, who are only subject to ID regulation and therefore are not required to charge the same price for providing FFLAS that are, in all material respects, the same, nevertheless typically offer uniform prices across their networks which suggests that competitive conditions are sufficiently similar that a broad geographic market across each of their network footprint is appropriate. 113
- 3.98 We note that this consistent pricing may be due to the influence of RSPs who have a strong preference for national pricing. However, our view is that the Non-Chorus LFCs could still vary prices to respond to localised competition where it existed, but do not do so.
- 3.99 While we recognise competitive conditions can vary by area and it may be the case in future that specific regions or cities should be separately considered for deregulation, we have seen no evidence that would change our conclusions based on specific regions LFC fibre areas.
- 3.100 We have considered a single geographic market, defined by where FFLAS exists (the footprint of each of the regulated fibre networks), is likely to be appropriate for consideration of whether reasonable grounds exist to review Bitstream PON services.

### State of competition in the market

3.101 As demand for Bitstream PON services is derived from the downstream retail broadband market, we assess competition for retail broadband services and the competitive constraint applied on retail broadband services which use Bitstream PON as an input.<sup>114</sup> Ultimately, we are concerned with whether current and future competition is sufficient such that Chorus and the Non-Chorus LFCs have insufficient market power to warrant regulation.

For example, Enable offers the same price for a specific FFLAS in all parts of the Christchurch region, rather than a lower price in those specific geographic parts of Christchurch where it faces competition from One NZ's HFC network. See Enable "Enable Networks Limited UFB Services Agreement – Price List v1.15 15 July 2023"; and "Enable Indicative Price Cap Changes – August 2024".

Telecommunications Act 2001, section 201.

No retail alternatives rely on Bitstream PON services, however as noted in the Transport section, FWA services (including FWA broadband services) often rely on regulated Transport services (mobile access) for delivery.

- 3.102 We consider that assessing competition in the retail broadband market requires analysis of:
  - 3.102.1 the market structure;
  - 3.102.2 whether alternatives represent close substitutes; and
  - 3.102.3 consumer demand and switching behaviour.

#### Market structure

- 3.103 The fibre network is a gigabit ethernet passive optical network (**GPON**), meaning that the fibre network can support up to 1Gbps speeds (without changes to the technology at the exchange and in the home). This enables price discrimination via 'throttling' (taking deliberate action to slow down a connection), as in effect every end-user connected to the fibre network has a 1Gbps connection. The network operator can thus 'dip into' parts of the market and offer different speed tiers in the knowledge that the cost to provide different tiers is minimal. This means they can increase quality without incurring significant cost, allowing them to easily compete at speed tiers up to 1Gbps. For example, in late 2021 Chorus, Enable and Tuatahi upgraded the speeds of some of their plans for free, resulting, in some cases, in a five-fold increase in speeds. <sup>115</sup> Again, on 7 November 2024, Chorus announced its intention to increase the speeds of two fibre plans without price changes. <sup>116</sup> Speed increases were confirmed on 16 November 2024 following consultation. <sup>117</sup>
- 3.104 By contrast, FWA broadband plans are essentially full speed (sometimes subject to throttling after a data cap is reached). MBNZ shows average 'full speed' performance of 4G FWA in urban areas is 38Mbps download (peak time speed), significantly less than 1Gbps possible over the existing fibre network and the 313 Mbps (peak time speed) delivered by the most popular Fibre 300 plan. Performance improvement for FWA is costly, requiring more sites, more spectrum, or the next generation of technology.

Chorus 'What is the big fibre boost'; Enable 'Speed upgrade'; and Tuatahi 'Broadband speed set to triple by Christmas for Tuatahi First Fibre customers'.

Final changes were 50/10Mbps to 100/20Mbps, and 300/100Mbps to 500/100Mbps. Chorus "Consultation outcomes: Refining the Big Fibre Boost" (16 November 2024). Note: login or registration required.

<sup>50/10</sup>Mbps to 80/40Mbps, and 300/100Mbps to 500/100Mbps. Chorus "Consultation - The next big fibre boost" (7 November 2024). Note: login or registration required.

Note this 4G result was from a sample size smaller than that typically included in reporting (24).

Commerce Commission and SamKnows "Measuring Broadband New Zealand – Report 21 – September 2024" (8 October 2024).

- 3.105 Similarly, HFC services are a full speed service, with the network capable of 1Gbps like the fibre network. However, like FWA, the speed an end-user experiences is impacted by the number of other users on the network. Improving performance may require an increase in capacity through additional network loops and an upgrade to technology at the exchange and user premises (to obtain speeds over 1Gbps).
- 3.106 Satellite broadband services (both GEO and LEO) also suffer from degraded performance as user numbers increase (congestion), with barriers to improved performance even higher for this technology, requiring additional satellites. GEO and LEO service plans vary in speed and data caps, with maximum speeds limited by the nature of the technology (primarily orbit distance, with LEO able to provide faster speeds).
- 3.107 As a result of these differences in underlying technology, aside from the Bitstream anchor service (100Mbps), regulated providers are free to price discriminate across their Bitstream PON services. For example, Chorus has chosen to offer Home Fibre Starter 50, a 50Mbps service with a maximum retail price, to compete with 4G FWA.<sup>119</sup>
- 3.108 Our latest AMR highlights the market share by retail broadband technology, including how it has changed over time. This is illustrated in Figure 3.3.

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See Chorus website: <a href="https://www.chorus.co.nz/residential/broadband/fibre">https://www.chorus.co.nz/residential/broadband/fibre</a>.

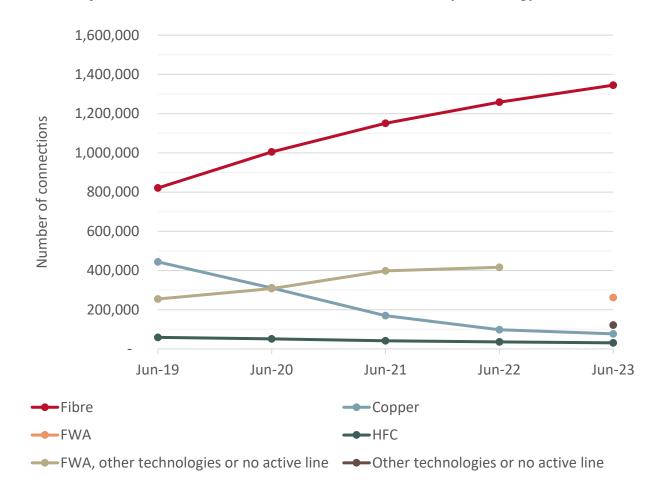


Figure 3.3 Urban fixed line broadband connections by technology<sup>120</sup>

3.109 As at 30 June 2023, an estimated 73.2% of urban broadband connections are over fibre, with FWA (14.3%), copper (4.2%), HFC (1.7%) and other technology or no active line (6.6%) making up the rest.

- 3.110 84% of urban fibre consumers have a plan providing 300Mbps or faster, with Fibre 300 by far the most popular plan, accounting for 57% of fibre connections and 44% of all urban broadband connections. 121
- 3.111 Chorus supplies 73% of the 1.3 million wholesale fibre connections across the country, with Tuatahi (14%), Enable (11%) and Northpower (2%) supplying the rest. We note that 6,248 addresses in New Zealand (0.27% of total addresses) have access to a fibre network from more than one LFC. 123

This is Commission data and only includes urban connections. The percentages differ slightly from the 2023 AMR as we have included other technologies and no active line in our figures. Prior to 2023 data, we were unable to split FWA between urban and rural, hence the lack of data from 2020 to 2022. As a whole, based on our previous AMRs, FWA across the country increased from 191k connections in June 2019 to 315k connections in June 2022.

<sup>&</sup>lt;sup>121</sup> Commission data.

<sup>&</sup>lt;sup>122</sup> Commission data.

<sup>&</sup>lt;sup>123</sup> Commission data.

- 3.112 The market share of fibre broadband within each of the regulated providers' network boundaries is 75% or higher. Were we to consider a narrower product market, we would expect fibre shares to be even higher, unless we considered only lower speed services where 4G FWA is more significant.
- 3.113 Copper broadband services, as of June 2023, represent only 4% of broadband connections in urban areas. Chorus has stated it plans to have fully withdrawn copper services in fibre areas by the end of 2026. With declining use and planned withdrawal, competition provided by the copper network, along with any competitive constraint it applies on Bitstream PON services, particularly in Non-Chorus LFC areas, will reduce. We therefore do not consider that copper services provide any competitive constraint on Bitstream PON based retail fibre services, either now or in the future.
- 3.114 Cellular FWA services represent 14% of urban broadband connections (residential and business), with cellular FWA (primarily 4G FWA) services available to 99.6% of urban households. Commission data shows that fixed wireless connections nationwide continue to grow but we disagree with Enable and Tuatahi's claim that FWA has steadily increased its share of broadband connections at the expense of fibre services. Both the table in their submission, and Figure 3.3 highlight that fibre and FWA connections are both rising, seemingly at the expense of copper and HFC connections.

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Market share is calculated as the sum of fibre broadband connections in each regulated provider's area (in all cases provided by multiple regulated providers), as a proportion of total fixed broadband connections in each regulated provider's area. Commission data at June 2023.

Many RSPs are also making commercial decisions to not offer copper broadband services for sale. Commission data.

Chorus 'Chorus delivers solid full-year result as Kiwis continue to favour fibre broadband' (21 August 2023).

We note that this is particularly important for the Non-Chorus LFCs as one of the reasons they are subject to ID regulation only is that they faced different competitive conditions, in particular that they compete against Chorus' copper network. Given the reduction in copper connections in areas served by the Non-Chorus LFCs down to low numbers, it appears that the threat of competition by copper may not have been as strong as had been expected. Cabinet paper "Review of the Telecommunications Act 2001: Final policy decisions for fixed line communications services" (7 December 2016), Annex paragraph 25.

Commission 2023 AMR. We note the difference with the 2023 AMR (which puts cellular FWA at 15% of urban retail connections) because, as we have included time series data, we have included other technologies and no active connections in our figures and graphs.

In this context, fixed wireless includes non-cellular fixed wireless, cellular fixed wireless and satellite (GEO and LEO) connections. Data from Commission 2023 AMR. Enable and Tuatahi "Submission on deregulation draft assessment framework" (16 February 2024) at [8.4].

Enable and Tuatahi "Submission on deregulation draft assessment framework" (16 February 2024) at [9].

- 3.115 24% of urban households are within 5G coverage of one or more MNOs, and there are an estimated 7,000 urban 5G FWA connections (residential and business). Looking forward, we expect this to grow, offering faster speeds and lower latency than 4G FWA as 5G coverage increases. 132
- 3.116 HFC broadband services are available to 12% of urban households (the HFC network is only present in areas of Christchurch, Wellington and Kāpiti), and 1.7% of urban homes and businesses are connected using HFC.<sup>133</sup> However, like copper, the number of HFC connections is declining, with an 11% fall to 32,000 connections in the year to 30 June 2023.<sup>134</sup>
- 3.117 Nationwide, the number of satellite connections (GEO and LEO) was up from 12,000 at June 2022 to around 37,000 at June 2023. This significant growth over 12 months follows the entry of Starlink to the New Zealand market. Most of this growth is in LEO satellite connections and concentrated outside of urban areas.

#### Close substitutes

- 3.118 We have adopted a market that is broad enough to encompass alternatives to fibre such as FWA (4G and 5G), HFC and satellite based broadband services. Some of these alternatives may be closer or more distant substitutes and are thus likely to pose more or less of a competitive constraint than others.
- 3.119 Table 3.4 illustrates price and non-price data regarding retail broadband services offered over different technologies and plans, sourced from various providers' websites and from the MBNZ September 2024 report.<sup>138</sup>

The Tech Users Association of New Zealand states on its website that 5G could be up to 100 times faster than previous networks, while Spark 'Spark delivers New Zealand's first 5G commercial wireless broadband into five heartland communities' (28 November 2019) and One NZ 'Fast without the fuss:

Vodafone NZ launches 5G Broadband for easy and reliable internet in homes and businesses' (22 February 2021) have commented that 5G compares well with other broadband technologies such as Fibre.

<sup>&</sup>lt;sup>131</sup> Commission data.

<sup>133</sup> Commission data.

<sup>&</sup>lt;sup>134</sup> Commission 2023 AMR.

<sup>&</sup>lt;sup>135</sup> Commission data.

Around 8% of the total satellite connections (3000) are in urban areas (representing about 0.17% of the broadband connections in urban areas). Commission data.

Even with this broad market definition, FFLAS-based broadband services have a relatively high market share. The remaining market share are connections to alternatives, some of which are limited to the lower-speed end of the market. If the market was defined more narrowly, fibre's market share would be higher still.

<sup>&</sup>lt;sup>138</sup> Commerce Commission Measuring Broadband New Zealand Report 21 (September 2024), figure 29 and table 3.

Latency<sup>140</sup> Technology **Monthly price** Speed Latency under **Customer premises** (down/up) load (down) equipment (CPE) (Mbps) 4G FWA \$60 - \$99 41 / 22 50ms 336ms Included or \$150 331 / 51141 **5G FWA** \$79 – \$80 Included or \$150 GEO \$109 - \$149 50 / 10142 Depends on plan length - can be high (up to \$2000) LEO \$79 – \$159 176 / 32 32ms \$599 41ms HFC \$73 885 / 103 13ms 37ms Included Fibre 50 \$59 - \$81 52<sup>143</sup> 7ms 45ms Included or \$150

Table 3.4 Retail broadband plans by technology (plans with unlimited data)<sup>139</sup>

3.120 This data highlights that, while prices of alternatives may appear comparable, often non-price performance characteristics do not compare well to the fibre plans. For example, 4G FWA plans are similarly priced to Fibre 50 plans, but offer slightly slower speeds and worse latency, and while HFC compares favourably to Fibre Max on price and download speed, it provides a much lower upload speed.<sup>144</sup>

6ms

5ms

38ms

17ms

Included or \$150

Included or \$150

313 / 108

873 / 494

\$77 – \$93

\$89 – \$106

- 3.121 GEO compares poorly with fibre across all characteristics, and while LEO compares favourably with Fibre 300 for download speed, it has higher latency and high upfront CPE costs.<sup>145</sup>
- 3.122 Three of the five performance measures from the MBNZ report show that retail fibre services (in particular Fibre 300) outperform alternatives:<sup>146</sup>

Fibre 300

Fibre Max

The September 2024 report is the second time MBNZ has reported on 5G speed. These figures relate to Spark's Max Wireless 5G plan during peak hours.

Table 3.4 summarises the retail prices of broadband plans offered by a selection of retail providers (Spark, One NZ, 2degrees, Slingshot, and Starlink) using differing technologies. Where possible we have used urban peak time data. All the plans summarised in Table 3.4 include unlimited monthly data. A number of plans include modems (typically on a 12-month contract) or a modem monthly rental (which are included in the retail monthly prices) or offer a modem for a one-off charge and no fixed-term contract. Source: Spark, One NZ, 2degrees, Slingshot, and Starlink websites (accessed 18 July 2024). Table 3.4 also utilises non-price data from the September 2024 MBNZ report. We have excluded copper due to the planned withdrawal of the copper network.

<sup>&</sup>lt;sup>140</sup> A lower latency figure is better.

MBNZ does not capture information on GEO service. This data comes from Gravity NZ and should be used as an indication of GEO speed only.

Average upload speeds for Fibre 50 were not included in the MBNZ report due to different upload allocations across LFCs. There were not enough Whiteboxes on Fibre 50 to split upload results by LFC. The sample size of Fibre 50 plans is 24, with the low sample size is attributed to Fibre 50 being a new area of focus for the MBNZ programme. There is an expectation of an increase in this number in subsequent reports.

We note an exception with the reported download peak-time speed for Spark's 4G plan (65Mbps) that is higher than the Fibre 50 speed. MBNZ Report 21 (September 2024).

We note recent reports regarding the introduction of Starlink Mini, a smaller CPE which would come with a lower cost to the consumer.

<sup>&</sup>lt;sup>146</sup> MBNZ Report 21 (September 2024).

- 3.122.1 Median daily disconnection rates (urban areas): Fibre 300 (0.5/day) is significantly better than HFC (11/day),<sup>147</sup> and LEO satellite (2/day).
- 3.122.2 Average upload speed: Fibre 300 significantly outperforms all competing technologies (at least three times the average upload speed) except for HFC which performed similarly.
- 3.122.3 Average latency: Fibre plans outperformed (5m/s to 7m/s) all competing technologies in urban areas (13m/s to 50m/s).
- 3.123 There are two performance measures where alternatives provide comparable levels of performance with broadband services provided via Bitstream PON services:
  - 3.123.1 Average download speeds: HFC (885Mbps) is similar to Fibre Max (873Mbps) with respect to download speeds.
  - 3.123.2 Average latency under load (down): HFC (37m/s) and LEO satellite (41 m/s) compare with Fibre 300 (38m/s) with respect to latency under load (all three significantly outperform 4G FWA (336m/s)). 148
- 3.124 In its submission, Chorus argued that comparing the non-price characteristics of FWA and fibre such as latency and speeds is not ideal as it assumes that consumers use the full extent of the FWA service speed and latency limits or that consumers do not trade-off price versus quality.<sup>149</sup>
- 3.125 We accept that consumers are ultimately interested in their online experience but recognise that this is shaped by the performance characteristics of the service. We also agree that consumers may be willing to opt for services offering both lower pricing and performance than fibre (such as 4G FWA), but also recognise that this trade-off has limits. For example, in terms of application performance, the MBNZ report shows that 4G FWA, the predominant technology competing with fibre, is unlikely to provide an acceptable online experience for larger households:
  - 3.125.1 The percentage of 4G FWA connections that can reliably stream Ultra-High Definition (**UHD**) videos from Netflix in fibre areas is 87% for one stream and 70% for two streams. By contrast, Fibre 50 can provide three simultaneous streams 100% of the time.
  - 3.125.2 4G FWA in fibre areas can stream UHD YouTube 58% of the time, whereas all fibre plans achieve 99%. 150

Note this result was from a sample of only 23.

<sup>&</sup>lt;sup>148</sup> Commerce Commission MBNZ Report 21 (September 2024).

<sup>&</sup>lt;sup>149</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [78].

<sup>&</sup>lt;sup>150</sup> Commerce Commission MBNZ Report 21 (September 2024).

3.126 We do not expect consumers to be indifferent to these characteristics, but we agree it is not the only factor consumers will take into account. Overall, we believe the closest substitutes are to the lowest speed fibre products, where 4G FWA may be attractive to customers. At the higher speed products, the closeness of the alternatives as a substitute to fibre declines.

## Consumer demand and switching behaviour

- 3.127 We do not have detailed data on end-user switching behaviour between broadband technologies. Were we to undertake a deregulation review, we would consider sourcing this data, potentially in the form of a representative sample, to inform such a review.
- 3.128 Based on the following, we can deduce that consumers are demanding faster broadband speeds at cheaper prices:
  - 3.128.1 Fibre 300 remains the most popular fibre plan (about two-thirds of total residential fibre connections) with this share increasing from 48% to 57% for all urban broadband connections. Further, the overall trend is towards faster plans, with just over one in four fibre consumers now on a fibre plan above 300Mbps. 153
  - 3.128.2 Consistent with this, our Customer Satisfaction Monitoring report highlights that 92% of consumers who switched broadband plans (staying with the same provider) indicated a key reason for doing so was for:<sup>154</sup>
    - 3.128.2.1 a lower price for similar plan inclusions (40%);<sup>155</sup>
    - 3.128.2.2 faster speed (29%); or
    - 3.128.2.3 a lower price plan for fewer plan inclusions (23%).

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<sup>&</sup>lt;sup>151</sup> Chorus "FY23 Investor Presentation" (21 August 2023), slide 8.

<sup>&</sup>lt;sup>152</sup> Commission 2023 AMR.

<sup>&</sup>lt;sup>153</sup> 26.8% of fibre plans are on speeds above 300Mbps as at June 2023. Commission data.

Commerce Commission "<u>Customer Satisfaction Monitoring – Telco SAT tracking – 6 Monthly report</u>" (June 2024) at [25]. Note this is from a sample of 361 consumers who switched broadband plan between July 2023 and December 2023.

We have interpreted "lower price for similar plan inclusions" to mean the same or similar speed connection. There was a separate "lower price for less plan inclusions" option respondents could select which would be appropriate if they downgraded speed. Consumers surveyed were able to put down multiple key reasons for switching broadband plans so the figures in the report sum to over 100%. The results are similar for consumers switching plans between broadband providers, with 38% of such consumers (sample size 244) indicating they switched for a lower price for similar plan inclusions and 21% indicating faster speeds was one reason for the switch.

3.129 This emphasises the heterogeneous nature of consumers but does not address the question of the degree to which consumers will switch technologies and hence the degree of competitive constraint the LFCs face, which we examine in the next section. We note that the regulated fibre providers will face the greatest potential threat of switching within their sub-100Mbps products which, for Chorus, represents approximately 11% of their connections.

## Ability to exercise substantial market power

- 3.130 We remain concerned that the degree of competition may be insufficient to constrain the ability of the LFCs to exercise market power, particularly looking to the future. Even if we have under-estimated competition constraint from FWA today, our view is that this constraint will reduce in the medium term. As recent consultation by Chorus has shown, fibre plans are easier to upgrade, and we also expect prices to drop as the FLA is depreciated away. This is further explored below. We also recognise the potential for 5G FWA to become an increasingly important competitive constraint but at the current time it is not possible to gauge the effectiveness of the future potential constraint 5G FWA will offer.
- 3.131 With fibre networks configured to provide up to 1Gbps to every home within their fibre areas, broadband market shares in excess of 70%, and the nearest competing technology (FWA) holding less than 15% market share, there is a risk that regulated fibre providers hold a position of competitive strength that, in the absence of regulation, may confer SMP.
- 3.132 We deem that a business has SMP when its actions are not effectively constrained by competition. This section considers the effectiveness of competition in constraining regulated providers from exercising market power in the supply of Bitstream PON.
- 3.133 We have considered whether there are market features or regulatory restrictions that limit the exercise of SMP, as submitted by Chorus and Tuatahi, including:
  - 3.133.1 Chorus' inability to recover its full maximum allowable revenue (MAR) and to price at the anchor service price cap, in PQP1;
  - 3.133.2 sustained high market shares by regulated fibre providers;
  - 3.133.3 the presence of a chain of substitution; and
  - 3.133.4 significant quality improvements without associated price increases.

Chorus' inability to recover the full MAR and to price at anchor service price cap is not evidence of inability to exercise SMP

- 3.134 Chorus submitted that it could neither achieve the full MAR nor price at the anchor service price cap level in PQP1 due to competition, and that this was evidence of its inability to exercise SMP.<sup>156</sup> It argued that this offers some direct evidence that the removal of price regulation would not lead to immediate price increases and the implication that prices are at a competitive level today. On consideration we have concerns around relying on this observation to justify a deregulation review.
- 3.135 We agree with One NZ and Spark's cross submissions that Chorus' inability to achieve the full MAR over the short term more likely relates to differences between fibre pricing, which is forward looking, and adjusting the MAR on a backward-looking basis at the end of the period, in line with the Building Blocks Methodology (BBM). As a result, in attempting to price between the forecast and updated MAR, a notional under-recovery results, which is likely to be corrected as the BBM methodology and forecasting mature over time.<sup>157</sup>
- 3.136 Furthermore, on 25 September 2024, Chorus confirmed its fibre pricing from 1 January 2025, which includes increasing its anchor service price to the price cap. 158
- 3.137 Chorus appears to share similar sentiments in its letter recommending improvements to the price path mechanism for PQP2, where it stated that:<sup>159</sup>

The unexpectedly high inflation environment for PQP1 showed that the inflation forecasts used to update MAR in-period for pricing compliance purposes can become materially out of step with pricing expectations established with our fibre customers and by the market.

The differences between forecast and actual CPI on MAR are eventually washed-up, however the in-period MAR changes that rely on Reserve Bank forecasts can be insufficient to accommodate commercial fibre price adjustments calculated using lagged CPI...This makes fibre pricing less predictable for Chorus and its customers.

3.138 As a result, our final decision for PQP2 was that the in-period MAR will be rolled forward using the lagged CPI, to align with the anchor service price cap adjustment.

<sup>&</sup>lt;sup>156</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [52].

Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [2]; and One NZ "Cross submission on FFLAS deregulation review – RGA draft decision" (15 October 2024) at [4].

<sup>&</sup>lt;sup>158</sup> Chorus "Confirming fibre pricing 1 January 2025" (25 September 2024).

<sup>&</sup>lt;sup>159</sup> Chorus "<u>Letter on price path compliance</u>" (20 December 2023).

- 3.139 Another reason Chorus may not be able to meet the MAR without deferred depreciation in the next control period, is the FLA. We took a decision to depreciate the FLA as quickly as possible due to the risky nature of the asset. Inevitably, this will push prices up to the bounds of some consumers' willingness to pay and within the price range of alternatives. This does not imply a lack of SMP over the medium term.
- 3.140 As illustrated in Figure 3.4, current prices are substantially affected by the FLA. To illustrate the significant impact that recovery of past losses is having on current revenues and prices for FFLAS, we have calculated the total dollar value of recovery of the FLA (depreciation and cost of capital) and other PQP1 under-recoveries net of the deferral of some core fibre asset depreciation in PQP2 for 2025. As shown below, these impacts are significantly lifting the requirement for high FFLAS prices, above what we would see as competitive-equivalent prices.

PQP2 forecast allowable revenue

Net of FLA, wash-up, and tilted annuity depn for selected core fibre assets

771

0 200 400 600 800 1000
2025 revenue requirement, \$million

Figure 3.4 Revenue impact of past losses on Chorus' current revenues and prices<sup>160</sup>

3.141 In 2025, the impact of recovery of past losses is a 24% revenue requirement increase, relative to costs not associated with past losses. During PQP1, because of the tilted annuity approach to recovering depreciation of the FLA, allowances for FLA depreciation were even higher than in PQP2.

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<sup>&</sup>lt;sup>160</sup> Commission data.

The 24% increase in MAR is the ratio between PQP2 forecast allowable revenue and the MAR net of the FLA, wash-up and tilted depreciation on selected core fibre assets. Please note the additional revenue associated with the FLA is to appropriately recoup losses from investing in a new fibre network.

<sup>&</sup>lt;sup>162</sup> Commission data.

- 3.142 Once the FLA is fully depreciated, prices are expected to decrease. This is an important consideration in the Commission avoiding the mistake of the 'cellophane fallacy' (ie, current FFLAS prices are above longer term efficient prices due to the relatively aggressive recovery of past losses).
- 3.143 Once the FLA nears the end of its depreciation path, this raises the question of whether the competitive constraint would still constrain Bitstream PON prices to efficient levels. Given competition between MNOs is likely to currently be driving existing FWA prices towards competitive levels, it is unclear that these could go lower, whereas once the FLA is fully depreciated, there is likely to be a material opportunity for regulated FFLAS prices to drop.
- 3.144 As a result, we do not agree with Chorus that its inability to recover the full MAR or price at the anchor service price cap in PQP1 or even in PQP2, is solely due to competition.

Sustained high market shares by regulated fibre providers

- 3.145 As outlined in our market structure discussion above, Chorus accounts for about 73% market share of wholesale fibre connections across the country, while the Non-Chorus LFCs also have about 75% market share of fibre broadband within each of their geographic boundaries. This raises concerns of SMP in the absence of regulation.
- 3.146 One NZ submitted that competition from alternative technologies is limited, as demonstrated by the high market shares held by LFCs in their respective network boundaries. 163
- 3.147 In its cross submission, Chorus cited the Commission's Guidelines on the misuse of market power and emphasised that market share is not the sole indicator of market power, but that factors such as barriers to entry and expansion must be considered as well.<sup>164</sup>
- 3.148 We agree that consideration of other factors is important, however, the Guidelines state that sustained high market share is nonetheless a useful indicator:<sup>165</sup>

All other things being equal, the larger the sustained share of the market held by a firm, the more likely it is that the firm will have a substantial degree of market power.

3.149 We note that our Guidelines also state that there is no market share threshold above which a firm will be considered to have SMP.

One NZ "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [5].

Chorus "Cross submission on FFLAS deregulation review – RGA draft decision" (15 October 2024) at [3] –

<sup>&</sup>lt;sup>165</sup> Commerce Commission "Misuse of Market Power Guidelines" (March 2023) at [45].

3.150 Our view is that the high market shares of fibre in the retail broadband market are a first impressions indicator that there are likely to be limited competitive constraints for regulated fibre providers at current regulated prices.

## Chain of substitution

- 3.151 Chorus and Tuatahi submitted that FWA services constrain lower speed fibre services directly and the remaining Bitstream PON services indirectly through a chain of substitution. Chorus and Frontier Economics provided submissions on the use of critical loss analysis to inform market definition and estimate how competition may currently be constraining Chorus' ability to raise prices. Such approaches can be helpful but often require detailed analysis. On the evidence offered, we note:
  - 3.151.1 Frontier has estimated that Chorus would need to lose 6.7% of customers in order for a 5% price increase to be unprofitable, given wholesale prices are only a proportion of the retail prices. Frontier's calculations state the 5% wholesale price rise would lead to a retail price rise of 3% which would need to prompt 6.7% of customers to switch in order to make such a price rise unprofitable. We note that the Chorus estimated margins of 70% implies less elastic demand (at the wholesale level) which emphasises the need to estimate actual loss. 166, 167, 168
  - 3.151.2 Frontier has also noted that for an increase to be unprofitable (for Fibre 300 customers), 40,000 customers would need to switch to FWA and some to Chorus's lower speed offers. However, the economic impact of switching to Chorus' own (lower speed) offers is substantially different to switching to alternative providers where Chorus will retain some margin were this to occur. It should also be the case that some customers, at the margin, may migrate to higher speed Chorus products as the price differential narrows which, again, will have a substantially different economic impact.

This is an issue recognised in Commission guidance where the importance of estimates of actual loss are important as high margins are indicative of customers not being price sensitive and therefore actual loses from a price increase might be small. See Commerce Commission "How to use quantitative analysis in your merger analysis – Advisory note" (December 2018) at [23]; and Katz, L.M. and Shapiro, C. "Critical Loss Analysis Let's Tell the Whole Story", Antitrust Magazine, Spring 2003.

Frontier Economics "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024).

Frontier Economics "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [14].

Frontier Economics "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [15].

- 3.152 Chorus has provided some estimates of cross-price elasticities but has not provided evidence as to how it has arrived at these estimates. We note estimating cross-price elasticities is not an easy task and can be error prone. We have therefore not given these much weight. We note that Chorus believes "Chorus' estimated cross-price elasticities are within or close to the minimum range required to constrain prices." 171
- 3.153 While Chorus has urged the Commission to replicate this analysis with a wider dataset, we do not believe our conclusions would turn on carrying out such an analysis. As we have discussed earlier, the impact of the FLA suggests current price levels may not be a good basis to understand how competition will develop over the medium term.
- 3.154 The overall market has also gone through some substantial changes which may affect the recent history of observed customer behaviour. For example, current switching data and market shares will be impacted by withdrawal of copper from areas prompting customers to make a choice over which technology and provider to receive broadband services, leading to greater churn and potentially benefiting FWA which compares favourably to copper services. We also note one market analyst estimates that, within Chorus' fibre zone, it has converted 90% of its copper customers to fibre. 172, 173
- 3.155 We also appreciate that other rival suppliers will not necessarily stand still over this time and may (or may not) develop services which would be able to compete more effectively at lower price points or higher speeds such as 5G FWA. That cannot be determined now and is consistent with a view that we should not embark on a deregulation review now but wait to see how the market develops.<sup>174</sup>
- 3.156 We acknowledge that there is likely to be some degree of chain of substitution between different broadband products, and that the competition which exists at lower speeds with FWA will, to some extent, be felt across LFCs' Bitstream PON services.

Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [73]. Chorus refers to their analysis of customer and pricing data but not what the data is or what the analysis was.

<sup>&</sup>lt;sup>171</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [74].

Forsyth Barr. "Spark NZL Incumbent Curse – The Broadband Edition" (21 October 2024). Note: Account required.

This is not directly addressing the number of marginal customers left that may still switch in the face of further price increases, but is a reason to be cautious in assuming such a critical mass exists.

Spark argued that heading into a deregulation review when the Part 6 regime has just been put in place would increase risk and uncertainty for all parties. As such, the regime needs to be more firmly established to justify its review. Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [3] and [8].

- 3.157 We are not persuaded that there is sufficient degree of substitutability for customers to consider switching in sufficient volumes to act as a material competitive constraint across their product portfolio. In particular, once customers have chosen a broadband technology, they tend to stay with the chosen technology for a long time.<sup>175</sup>
- 3.158 While a review could seek to assess the strength of a chain of substitution, given the current immaturity of fibre markets and the nascent introduction of 5G FWA, we do not think there is reasonable possibility we would obtain sufficiently reliable information in a review on cross-price elasticities to be confident that deregulation would be an appropriate outcome, relative to waiting for more reliable evidence.
- 3.159 Moreover, given the impact of past losses in fibre prices, establishing a chain of substitution would not be a determinative factor in a deregulation review.

Significant quality improvements without associated price increases

- 3.160 As indicated in paragraph 3.103, regulated fibre providers can and do upgrade
  Bitstream PON speeds without incurring significant costs, something FWA providers
  are unable to do.
- 3.161 Chorus performed speed upgrades in 2021 by boosting the 30/10 plan to 50/20Mbps and the 100/20 plan to 300/100Mbps without any associated increase in price. The Shortly after this, the Non-Chorus LFCs followed Chorus' decision. Chorus recently announced it would be consulting on a further quality improvement, proposing speed upgrades of 80/40Mbps (from 50/10Mbps) and 500/100Mbps (from 300/100Mbps) again without proposed price increases. These upgrades are shown in Figure 3.5.

<sup>&</sup>lt;sup>175</sup>[

<sup>&</sup>lt;sup>176</sup> Chorus "What is the Big Fibre Boost?" (23 November 2021).

Chorus Consultation "The next big fibre boost" (7 November 2024). Note requires login or registration. Speed increases were confirmed on 16 November 2024 following consultation. Final changes were 50/10Mbps to 100/20Mbps, and 300/100Mbps to 500/100Mbps. Chorus "Consultation outcomes: Refining the Big Fibre Boost" (16 November 2024). Note: login or registration required.

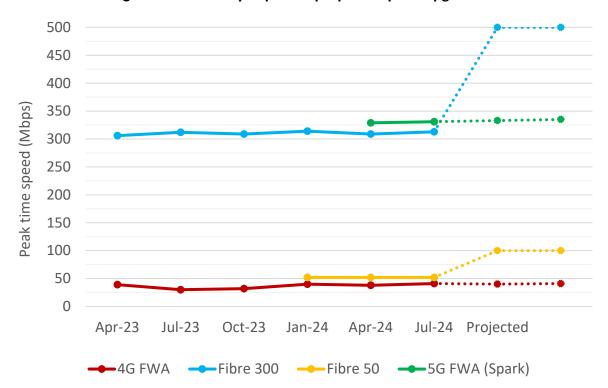


Figure 3.5 Likely impact of proposed speed upgrades<sup>178</sup>

3.162 While such capacity upgrades to customers can be the result of competition, we are conscious that the observed fibre speed upgrades have taken place in the context of fibre prices that are elevated as a result of recovery of past losses. It is unclear whether such changes would occur in future when fibre prices are lower. We consider it unlikely, given the immaturity of the 5G rollout and limited uptake of 5G FWA, that a review in the near-term would establish sufficient evidence base on which it would be realistically possible for us to deregulate Bitstream PON services.

# ID only regulated providers

- 3.163 Much of the discussion has centred on Chorus and we have separately considered whether our conclusions should differ for each of the Non-Chorus LFCs. Overall, we have decided it should not, given:
  - 3.163.1 the ID regime is still young, the market is still changing and future market power issues are still relevant for these LFCs as they are for Chorus; and
  - 3.163.2 the main difference between the Non-Chorus LFCs and Chorus is the presence of Chorus copper based broadband services in Non-Chorus LFC fibre areas. Given Chorus' stated intention to withdraw all copper services, any competitive constraint from Chorus' copper services on the Non-Chorus LFCs will be of limited duration.

<sup>&</sup>lt;sup>178</sup> 5G FWA is based on Spark's 5G speed test results for April and July 2024.

## Alignment with the purpose of the regulation – sections 162 and 166(2)(b)

3.164 We have considered whether there is at least a realistic possibility that following a review we would find that Bitstream PON services should no longer be regulated (or should not be regulated by PQ regulation), having regard to the purpose in section 162 and where relevant, the promotion of workable competition under section 166(2)(b).

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- 3.165 We consider that the promotion of workable competition under section 166(2)(b) is not a relevant factor affecting our reasonable grounds assessment review for Bitstream PON services because of the likely neutral impact on wider markets for telecommunications services, in particular the retail broadband market, as explained below.
- 3.166 Bitstream PON services are used by RSPs to provide retail broadband services to end-users. While, in the event of deregulation, wholesale prices could increase (given the ability of LFCs to exercise SMP), as Bitstream PON services are a common input, the state of competition at the retail level would likely not be significantly impacted.
- 3.167 For the Non-Chorus LFCs, ID Regulation provides a check on the exercise of market power by providing greater transparency.
- 3.168 In terms of section 162, in light of the discussion in this section regarding the lack of competitive constraint in the wholesale broadband market and the potential for regulated providers to exercise SMP, our view is that there is not a realistic possibility that outcomes consistent with workably competitive markets would be best promoted, to the long-term benefit of end-users, by deregulation.<sup>179</sup> Therefore, our final decision is that there are no reasonable grounds to start a deregulation review of Bitstream PON services.

## **Point-to-point services**

### **Final decision**

3.169 Our final decision is that there are reasonable grounds to start a deregulation review of Point-to-point services in Non-Chorus LFC areas. <sup>180</sup> This is a change from our draft decision and is explained below.

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The revenue cap and expenditure scrutiny under PQ regulation means that Chorus is limited in its ability to extract excessive profits (section 162(d)). The removal of PQ regulation would remove the revenue cap and would mean that Chorus could lift its expected profitability over the long-term, and/or reduce quality, where insufficient competition existed. Similarly, the benefits to end-users of ID regulation, primarily that sufficient information is available to assess whether the purpose of Part 6 is being met, remain while the regulated providers hold SMP.

<sup>&</sup>lt;sup>180</sup> Under section 210 of the Act.

### Stakeholder views

- 3.170 We received submissions on our draft decision for Point-to-point services from Chorus, Tuatahi, Enable and One NZ.
- 3.171 Chorus disagreed with the Commission's draft decision that there are no reasonable grounds to start a deregulation review of Point-to-point services. Chorus submitted that there is increasing competition in the market for point-to-point services and the Commission's acknowledgement of alternative active services is sufficient to justify the need for a review.<sup>181</sup>
- 3.172 Chorus also noted that there are more than the four non-LFC participants identified by the Commission in the draft decision and provided a list of 13 point-to-point service providers.<sup>182</sup>
- 3.173 Tuatahi and Enable also disagreed with the draft decision, stating that they only supply two of the four products included in the point-to-point service category, Bitstream 4 and DFAS, for which strong competition exists. Both LFCs also noted the increasing number of dark fibre suppliers. 183
- 3.174 Tuatahi further noted that the Chorus network overlaps 100% with its point-to-point network, with Chorus being the dominant provider of point-to-point services in Tuatahi's geographic markets. 184
- 3.175 One NZ provided support for the Commission's draft decision for Point-to-point services, stating that Chorus remains a monopoly provider of point-to-point services in most parts of the country and that only limited competition exists in small geographic pockets. 185

### Reasons for our final decision

The market for Point-to-point services and identification of alternatives

- 3.176 Point-to-point services comprise single, multi-class or layer 1 point-to-point fibre access services (including, but not limited to, Bitstream 4, enhanced Bitstream 4, High-Speed Network Services, Bandwidth Fibre and Direct Fibre (DFAS)).
- 3.177 Point-to-point services are wholesale services supplied by the regulated providers to RSPs, who use the services to provide dedicated high-speed retail broadband services, primarily to business end-users.

<sup>&</sup>lt;sup>181</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [89].

<sup>&</sup>lt;sup>182</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [89].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [11.4] – [11.5]; and Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [6].

<sup>&</sup>lt;sup>184</sup> Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [11.2].

One NZ "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [5].

3.178 Point-to-point services are primarily high grade bitstream or dark fibre, and offer secure, flexible and customisable (in the case of DFAS) options to meet large and/or complex broadband needs.

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- 3.179 We consider the current market in which Point-to-point services compete, to comprise wholesale services that can be used to offer retail point-to-point services.
- 3.180 Demand for wholesale point-to-point services is derived from the demand for retail point-to-point services. We consider this retail market comprises services which can provide end-users with dedicated, tailored connectivity capable of supporting large and/or complex business end-users.
- 3.181 Our view is that commercial (ie, not regulated) fibre networks offering retail point-to-point services, where they exist, are in the retail point-to-point market.
- 3.182 We understand particular variants of DMR services, under certain conditions, can offer connectivity similar to Point-to-point services, and are therefore considered to be in the same market.
- 3.183 Alternative point-to-point fibre services are offered commercially in parts of New Zealand (eg, Vector in Auckland and Network Tasman in the Tasman region). Notwithstanding this, we believe the four markets where regulated FFLAS exists (ie, the footprint of each of the four regulated fibre networks) is most appropriate for our reasonable grounds assessment. At this stage, we do not see a benefit in defining more granular geographic markets for Point-to-point services. As part of our deregulation investigation into Point-to-point services, we will investigate whether more granular geographic markets exist.

## State of competition in the market

- 3.184 As demand for Point-to-point services is derived from the downstream retail point-to-point market, we assess competition for retail point-to-point services and the competitive constraint applied to retail point-to-point services which use the regulated wholesale service as an input.<sup>186</sup>
- 3.185 We consider that assessing competition in the retail point-to-point market requires analysis of:
  - 3.185.1 the market structure;
  - 3.185.2 whether alternatives represent close substitutes; and
  - 3.185.3 consumer demand and switching behaviour.

No retail alternatives rely on Point-to-point services, however as noted in the Transport section, FWA services often rely on regulated Transport services (mobile access) for delivery.

### Market structure and close substitutes

3.186 The regulated providers can augment their point-to-multi-point access networks to deliver Point-to-point services. This is achieved through the use of the existing infrastructure (eg, ducts) supporting Bitstream PON services. This approach means Point-to-point services can be widely deployed at relatively low cost.

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- 3.187 Our draft decision acknowledged where these FFLAS networks exist alongside each other (eg, where the Chorus network overlaps with one of the Non-Chorus LFCs' networks), we expect some competition does exist. However, we considered that this was a weak competitive constraint due to the small number of situations where it occurs (as only 0.27% of NZ addresses can get a fibre connection from two LFCs).<sup>187</sup>
- 3.188 In response, Tuatahi explained that Chorus has built on its pre-UFB network and long-term historic supply agreements, resulting in a 100% overlap with Tuatahi's Point-to-point network. Enable did not provide any comment on overlap of its Point-to-point network with Chorus' network. Chorus, in its submission, explained that there are more participants in the point-to-point fibre market than we noted in our draft assessment. 189
- 3.189 Our draft decision identified DMR as the only non-fibre technology we were aware of that provides a dedicated point-to-point connection between the end-user and the exchange. We noted that DMR requires clear line of sight between a provider tower and the end-user premises, and typically has a high upfront cost due to the need to install equipment on both the tower and at the consumer's premises. Expanding DMR (ie, to provide services to more end-users) would likely require significant investment, with the additional cost of sites, towers and spectrum considerable.
- 3.190 We identified several providers of DMR point-to-point services across the country but had limited information on the services they provide. We did not receive any submissions on the competitive constraint provided by DMR on Point-to-point services.
- 3.191 While the competitive constraint provided by DMR is potentially weak, we agree that competition for Point-to-point services is stronger than we described in our draft decision.

<sup>&</sup>lt;sup>187</sup> Commission data.

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [11.2].

<sup>&</sup>lt;sup>189</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [89].

3.192 Accordingly, while we have limited data regarding the impact of these providers on competition, the existence of a number of non-LFC market participants, coupled with the suggested overlap of Chorus' point-to-point network in Non-Chorus LFC areas, means it is a realistic possibility that there may be sufficient competitive constraint on Non-Chorus LFC Point-to-point services. A deregulation review into Point-to-point services provides an opportunity to obtain and assess quantitative data to determine the extent of competitive constraint highlighted in submissions.

### Consumer demand and switching behaviour

3.193 We do not have any data on switching behaviour between Point-to-point services at either the retail or wholesale level. We will consider sourcing this data, potentially in the form of a representative sample, to inform our deregulation review.

# Ability to exercise substantial market power

- 3.194 In our view, it is a realistic possibility that there is sufficient competitive constraint on the ability of Non-Chorus LFCs to exercise SMP in relation to Point-to-point services.
- 3.195 We have been made aware that there are more non-regulated providers of Point-to-point services than our draft decision identified, who may exert competitive constraints on regulated providers to render any possible small but significant non-transitory increase in price (**SSNIP**) unprofitable. Submissions have suggested that Chorus' point-to-point services overlap Non-Chorus LFC networks more widely than we had reflected in our draft decision, further limiting the potential exercise of market power in these geographic areas.

### Alignment with the purpose of the regulation – sections 162 and 166(2)(b)

- 3.196 We have considered whether there is at least a realistic possibility that following a review we would find that Point-to-point services should no longer be regulated (or should not be regulated by PQ regulation), having regard to the purpose in section 162 and, where relevant, the promotion of workable competition under section 166(2)(b).
- 3.197 We do not consider that the promotion of workable competition under section 166(2)(b) is relevant for our decision on whether there are reasonable grounds to start a deregulation review for Point-to-point services. Point-to point are specific high-speed, secure services which do not compete with non-dedicated broadband services, meaning their impact on competition in the wider retail broadband market is at most, minimal.

- 3.198 In relation to section 162, our view is that it is probable that Non-Chorus LFCs are currently limited in their ability to extract excessive profits due to the level of competition that likely exists.<sup>190</sup>
- 3.199 Similar to our net benefit considerations set out in our assessment of Voice services, we consider that compliance costs associated with deregulation of Point-to-point services should be considered as part of a deregulation review process.
- 3.200 Therefore, for the reasons explained above, in our view there is at least a realistic possibility that following a review we would find that Point-to-point services in Non-Chorus LFC areas should no longer be regulated (or should not be regulated by PQ regulation) in order to best give effect to section 162. Accordingly, our final decision is that there are reasonable grounds to start a deregulation review of Point-to-point services in Non-Chorus LFC areas.

### **Unbundled PON services**

#### **Final decision**

3.201 Our final decision is that there are no reasonable grounds to start a deregulation review of Unbundled PON services. 191 This is unchanged from our draft decision.

### Stakeholder views

- 3.202 We received submissions on our draft decision for Unbundled PON services from Chorus, Tuatahi and Enable.
- 3.203 Chorus, Tuatahi and Enable all disagreed with our draft decision that there are no reasonable grounds to start a deregulation review of Unbundled PON services. Chorus submitted that it only has one customer of Unbundled PON, and it is under the impression there will not be any material future uptake. 192 Chorus' understanding is that it is easier for RSPs to compete at layer 2, where they can avoid the cost of investing in layer 1 inputs. 193 Tuatahi and Enable also submitted that no RSP has taken up this service with them in the four years it has been offered. 194

<sup>191</sup> Under section 210 of the Act.

<sup>&</sup>lt;sup>190</sup> Section 162(d).

<sup>&</sup>lt;sup>192</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [100].

Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [100] – [101].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [10.3]; and Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [6].

- 3.204 Tuatahi further submitted that the three MNOs have preferred to invest in their own competing fixed wireless networks, while smaller providers have advocated for a reduction in the price of the 1G PON service, as an alternative to unbundling.<sup>195</sup>
- 3.205 On this basis, the submitters argued there was no basis for continued regulation under Part 6 of the Act. According to Tuatahi, non-discrimination and equivalence obligations under Part 4AA of the Act would continue to apply in the absence of Part 6, thus limiting regulated providers' ability to exercise market power. 196
- 3.206 However, in cross submissions One NZ was of the view that the real reason behind little demand for Unbundled PON services is that layer 1 terms provided by Chorus are not commercially viable. 197

### Reasons for our final decision

The market for Unbundled PON services and identification of alternatives

- 3.207 Unbundled PON services include wholesale point-to-multipoint layer 1 fibre access services that, when combined with co-location services, allow RSPs to use their own electronics with the regulated providers' underlying point-to-multipoint access network. Unbundled PON services are intended to drive downstream competition with the regulated providers' Bitstream services.
- 3.208 We consider the current market, in which Unbundled PON services compete, to comprise services that allow RSPs to use their own equipment in conjunction with a high-speed access network to compete with the regulated providers' wholesale bitstream services.
- 3.209 Our view is that commercial point-to-multipoint fibre networks offering layer 1 services, where they exist, are in the same market as Unbundled PON services.
- 3.210 Alternative downstream retail broadband services, such as 4G FWA, may provide an indirect competitive constraint on Unbundled PON services, and should be considered in the same market as retail services that can be supplied using Unbundled PON services.

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [10.1] – [10.3].

<sup>&</sup>lt;sup>196</sup> Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [10.2].

One NZ "Cross submission on FFLAS deregulation review – RGA draft decision" (15 October 2024) at [22].

3.211 Similar to the approach taken for Point-to-point and Bitstream PON services, our view is that there is no benefit to defining multiple geographic markets for Unbundled PON services. While commercial fibre networks exist in pockets of New Zealand, these pockets are limited and isolated. Our view is that even in these areas, the regulated providers would capture a significant share of the market, limiting the effectiveness of any present alternatives at providing a genuine competitive constraint.

### State of competition in the market

- 3.212 We consider that assessing competition in the market in which Unbundled PON services are supplied requires analysis of:<sup>198</sup>
  - 3.212.1 the market structure;
  - 3.212.2 whether alternatives represent close substitutes; and
  - 3.212.3 consumer demand and switching behaviour.

### Market structure and close substitutes

- 3.213 At a wholesale level, we are aware that uptake of Unbundled PON services is limited, with Enable and Tuatahi stating in their submission on our draft assessment framework paper that no RSP has taken them up on their Unbundled PON service offerings since the start of 2020. 199 As indicated above, Tuatahi and Chorus alluded to this point in their submissions on our draft decision.
- 3.214 Our view is that it appears there could be market dynamics other than the presence of alternatives, that account for the low demand for Unbundled PON services.<sup>200,</sup>
- 3.215 FWA represents a similar option for RSPs, but the difference in end-user experience across the different technologies indicates they are not close substitutes for each other. The performance differences and degradation that occurs as more users connect to FWA provides a different experience as opposed to services provided via FFLAS. Our view is therefore that, at a wholesale level, competitive constraint is limited.

No retail alternatives rely on Unbundled PON services, however as noted in the Transport section, FWA services often rely on regulated Transport services (mobile access) for delivery.

Enable and Tuatahi "Submission on deregulation draft assessment framework" (16 February 2024) at [9.16].

We note the previous complaints raised by RSPs, for example by Vector, against the reference offers for the unbundled point-to-multi-point service (**PONFAS**) from the regulated providers, and refer to the Commission's decision to not progress the investigation. See letter to Chorus "Chorus Limited PONFAS Investigation" (28 April 2023).

Vector "Submission on deregulation draft assessment framework" (16 February 2024).

- 3.216 As the downstream retail market for Unbundled PON services reflects elements of the downstream retail market defined for Bitstream PON, the analysis completed for that service applies here too.
- 3.217 This previous analysis indicates that despite there being a range of alternatives available in the retail market, the collective competitive constraint these provided on Unbundled PON is limited.

# Consumer demand and switching behaviour

3.218 With connection volumes of Unbundled PON services either zero or close to zero across regulated providers, this is not currently a relevant consideration.

## Ability to exercise substantial market power

- 3.219 In our view, it is probable that there is little competitive constraint on the ability of regulated providers to exercise SMP in relation to Unbundled PON services.
- 3.220 As noted above, we considered that the competitive constraint by alternative services on Unbundled PON services was limited. We are also concerned that there may be other factors accounting for the low demand of Unbundled PON services, but these are outside the scope of this assessment. As a result, our view is that it is likely that regulated fibre providers may profitably sustain a SSNIP in the absence of regulation.

## Alignment with the purpose of the regulation – sections 162 and 166(2)(b)

- 3.221 We have considered whether there is at least a realistic possibility that following a review we would find that Unbundled PON services should no longer be regulated (or should not be regulated by PQ regulation), having regard to the purpose in section 162, and where relevant, the promotion of workable competition under section 166(2)(b).
- 3.222 We consider that the promotion of workable competition under section 166(2)(b) is relevant for our final decision on whether there are reasonable grounds to start a deregulation review for Unbundled PON services because of the impact regulation of this market can have on other markets, such as the retail broadband market. Unbundled PON services allow RSPs to provide their own bitstream services, competing with regulated provider bitstream products.

- 3.223 Currently, the regulation of Unbundled PON, and its inclusion within the revenue cap, is essentially costless, as demand for the service is close to zero. The legislation required the provision on Unbundled PON from 1 January 2020,<sup>202</sup> but granted fibre providers a high degree of commercial flexibility in providing the service in terms of price and non-price settings (subject to non-discrimination and equivalence of inputs requirements).
- 3.224 In light of the above discussion, our view is that there is not a realistic possibility that workable competition and outcomes consistent with workably competitive markets would be best promoted, to the long-term benefit of end-users, if the service were no longer regulated.
- 3.225 Looking ahead, the legislation also provides for the Commission to review Unbundled PON from 1 January 2025.<sup>203</sup> In the future, and potentially following a legislated review of the service, a market may develop for Unbundled PON services that could have significant competitive implications for both the Bitstream PON and retail broadband markets, advancing the purposes set out in sections 162 and 166(2)(b).
- 3.226 Accordingly, it would be premature for us to find, in advance of this date, that reasonable grounds exist to deregulate this service and that this would best give effect to sections 162 and 166(2)(b).
- 3.227 Therefore, our final decision is that there are no reasonable grounds to start a deregulation review of Unbundled PON services at this time.

# **Transport services**

### **Final decision**

3.228 Our final decision is that there are reasonable grounds to start a deregulation review of Transport services.<sup>204</sup> This is a change from our draft decision and is explained below.

## Stakeholder views

3.229 We received submissions on our draft decision for Transport services from Chorus, Enable and Tuatahi.

Section 156AD(2)(b) of the Act.

<sup>&</sup>lt;sup>203</sup> Section 209(2)(c) of the Act.

<sup>&</sup>lt;sup>204</sup> Under section 210 of the Act.

- 3.230 Chorus submitted that the draft decision failed to consider all relevant Transport services. It noted that the draft decision only discusses ICABS and Mobile Access services, but does not consider commercial backhaul or Chorus Exchange Control (CXC) services, some of which are defined as FFLAS. Chorus stated that these additional services face strong competition in main geographic centres and, as such, a deregulation review is appropriate to properly consider competition across each Transport service.<sup>205</sup>
- 3.231 Chorus disagreed with the use of data from the 2019 backhaul study, as well as the Commission's interpretation of it to determine that there is limited competition for ICABS. Chorus stated that the study is out of date and its use is unjustified when the Commission gathers such data on an annual basis. Chorus further submitted that the conclusion of limited competition given that 90% of ICABS links are not competitive is unlikely to be representative as the competitive links will generally be serving the largest number of connections.<sup>206</sup>
- 3.232 Chorus, in its submission, raised the issue that the overlap of Part 6 regulation with non-discrimination requirements and Business Line Restrictions is impeding competition in the market for transport products. Chorus was of the view that a deregulation review is necessary to allow for the consideration of reducing at least the Part 6 elements to ease complexity and promote competition for Transport services.<sup>207</sup>
- 3.233 Tuatahi submitted that it has no ability to exercise SMP in relation to Transport services given that Chorus is the major provider of non-building access points in Tuatahi's area, and that MNOs also provide backhaul services to their own towers, as well as for other providers in some instances.<sup>208</sup> Chorus and Enable also noted the ability of MNOs to deploy fibre to their own towers.<sup>209</sup>

### Reasons for our final decision

The market for Transport services and identification of alternatives

3.234 Transport services carry voice and data traffic across and between networks, meaning RSPs can connect traffic to where their equipment is located. Transport services can be coupled with other products to achieve end-to-end and infrastructure solutions.

<sup>&</sup>lt;sup>205</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [95].

<sup>&</sup>lt;sup>206</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [96].

<sup>&</sup>lt;sup>207</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [98] – [99].

<sup>&</sup>lt;sup>208</sup> Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [12.4].

<sup>&</sup>lt;sup>209</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [97]; and Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024).

- 3.235 There are different Transport services. For example, ICABS provides RSPs with dark fibre connectivity between exchanges within the same candidate area, <sup>210</sup> while the Mobile Access service provides RSPs with a high-speed, high traffic class point-to-point bitstream service suitable for connectivity to mobile cell sites and other similar non-building access points. <sup>211</sup>
- 3.236 Levels of competition can differ for these different Transport services, so we touch on them separately where appropriate below.
- 3.237 We consider the current market, in which Transport services compete, to comprise intra-candidate area bitstream or dark fibre services between the regulated provider's exchanges, or from the regulated provider's exchanges to non-building access points (such as mobile cell sites) within the same candidate area.
- 3.238 We are aware that, besides the LFCs, other providers can and do provide Transport services within candidate areas. The MNOs provide backhaul services to their own cellular towers and do in some cases provide backhaul for other MNOs, directly competing with the regulated providers for provision of these services. For example, One NZ has 11,000km of total fibre, with 1,200km of that as metro fibre rings in some main centres, and 4,200+km as access fibre, which is described as fibre from exchange nodes to business premises and selected mobile towers.<sup>212</sup>
- 3.239 Outside of the MNOs, non-regulated providers, such as Vector, provide transport services where their networks are located.
- 3.240 We see commercial fibre networks, including those with connectivity to mobile cell sites and non-building access points, in the same market as Transport services.
- 3.241 Certain wireless point-to-point bitstream services, such as those available over DMR or LEO satellite, are in the same market as Transport services, albeit competing specifically with the Mobile Access service.

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There are 33 candidate areas across New Zealand. These are defined by having a single POI each (the place where the RSPs network connects to the wholesale fibre provider's network). Each candidate area is serviced by one of the four LFCs.

The Mobile Access service is used as an input to alternatives in the Voice and Bitstream PON markets as described above.

One NZ investor update "Infratil Investor Day" (5 March 2024).

3.242 Our draft decision was that there was no benefit to defining multiple geographic markets for Transport services. Our view was that regulated providers, leveraging their existing fibre footprints, could limit any competitive constraint through bundling of competitive and uncompetitive routes across their network footprint. Submissions, while not engaging specifically on this point, did suggest that there may be more granular geographic markets (eg, main urban centres) within regulated provider's network footprints. Accordingly, as part of our deregulation investigation into Transport services, we will investigate whether more granular geographic markets exist, and the extent to which bundling (or other actions by regulated providers) may or could undermine these definitions.

## State of competition in the market

- 3.243 We consider that assessing competition in the market in which Transport services are supplied requires analysis of:
  - 3.243.1 the market structure;
  - 3.243.2 whether alternatives represent close substitutes; and
  - 3.243.3 consumer demand and switching behaviour.

#### Market structure and close substitutes

#### **ICABS**

- 3.244 Our draft decision relied on evidence from our 2019 Backhaul study which found that Chorus faces limited or no competition for the supply of intra-regional backhaul by other network operators at the majority (approximately 90%) of exchanges where it offers ICABS product.<sup>213</sup> Chorus, in its submission, was of the view that this is not fully representative of the competitive landscape as the competitive links will be those serving the largest number of connections, but did not provide any evidence of this claim.<sup>214</sup>
- 3.245 Our draft decision noted that Chorus charged higher prices where it faced little or no competition, meaning the presence of competition on a minority of routes did not impact Chorus' ability to charge higher prices on other uncompetitive routes.<sup>215</sup>

<sup>213</sup> Commerce Commission "Section 9A Backhaul services study" (11 June 2019) at [4.26.2].

<sup>&</sup>lt;sup>214</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [96].

<sup>&</sup>lt;sup>215</sup> Commerce Commission "Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act – Reasonable grounds assessment draft decision" (27 August 2024) at [3.178].

- 3.246 While Chorus indicated that its CXC transport product faces competition from other networks in the main geographic centres, it also signalled its intention to align the pricing structure of long distance ICABS to match that of the CXC service. The competitive distinction between ICABS and CXC services has not been effectively demonstrated in submissions.<sup>216</sup>
- 3.247 Enable submitted that Chorus is the main provider of transport services in its region, but did not specify whether this was in reference to ICABS or Mobile Access. Similarly, Tuatahi did not provide any specific information regarding competition for ICABS in its area.<sup>217</sup>
- 3.248 While we have limited data regarding the impact of these providers on competition, the existence of a number of non-LFC market participants, coupled with the suggested overlap of Chorus' transport network in Non-Chorus LFC areas, means it is a realistic possibility that there may be sufficient competitive constraint on Non-Chorus LFC Transport services, and within certain geographic areas of Chorus' network footprint. A deregulation review into Transport services provides an opportunity to obtain and assess quantitative data to determine the extent of competitive constraint highlighted in submissions.

## Mobile Access service

- 3.249 Our draft decision suggested that there is likely no competition 'in' the market (ie, mobile sites are not served by competing fibre links). However, we expected there may be some level of competition 'for' the market, or more specifically, for connecting and serving new tranches of mobile sites.<sup>218</sup>
- 3.250 Our draft decision noted that non-fibre technologies are likely to only impose a weak competitive constraint on regulated providers.
- 3.251 LEO satellite is not seen as comparable to fibre (LEO is primarily used in rural, low-traffic locations where fibre deployment cost is prohibitive and as a resiliency back-stop where required). Similarly, DMR is more likely to be used as an alternative to fibre only in rural locations due to the high cost involved.

Chorus Exchange Connect transports traffic between two Central Offices, handing traffic back to RSP's nominated footprints or Points of Interconnect by combining with other backhaul products. ICABS provides a similar service, transporting traffic between Central Offices within a candidate area.

Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [6], table

<sup>&</sup>lt;sup>218</sup> Commerce Commission "Fibre fixed line access service deregulation review under section 210 of the Telecommunications Act – Reasonable grounds assessment draft decision" (27 August 2024) at [3.180].

- 3.252 In locations where competition for the Mobile Access service exists, we expect there are commercial drivers for commercial mobile access to be terminated at the nearest regulated provider exchange where the RSP has transport arrangements for its other services (eg, Bitstream PON), allowing the RSP to benefit from economies of scale and scope for transport, such as ICABS.
- 3.253 We have not received any submissions or evidence regarding the market and competition facing Mobile Access. However, as we have determined reasonable grounds exist for ICABS, we will include Mobile Access in our deregulation review of Transport services, as there are similar service characteristics in the provision of ICABS and Mobile Access.

# Consumer demand and switching behaviour

3.254 We do not have any data on switching behaviour between Transport services at either the retail or wholesale level. We will consider sourcing this data, potentially in the form of a representative sample, to inform our deregulation review.

## Ability to exercise substantial market power

- 3.255 In our view, it is a realistic possibility that there is sufficient competitive constraint on the ability of Non-Chorus LFCs, and in some cases, Chorus, to exercise SMP in relation to Transport services.
- 3.256 We have been made aware that there are more non-regulated providers of transport services than our draft decision identified, who may exert competitive constraints on regulated providers to render any possible SSNIP unprofitable. Submissions have suggested that Chorus' transport services overlap Non-Chorus LFC networks more widely than we had reflected in our draft decision, further limiting the potential exercise of market power in these geographic areas.

## Alignment with the purpose of the regulation – sections 162 and 166(2)(b)

- 3.257 We have considered whether there is at least a realistic possibility that following a review we would find that Transport services should no longer be regulated (or should no longer be subject to PQ regulation), having regard to the purpose in section 162 and the promotion of workable competition under section 166(2)(b).
- 3.258 We consider that the promotion of workable competition under section 166(2)(b) is relevant for our final decision on whether there are reasonable grounds to start a deregulation review for Transport services. Both ICABS and the Mobile Access service are used in the provision of retail voice and broadband services meaning regulation of Transport services impacts these wider telecommunications markets.

- 3.259 Submissions on the state of competition for Transport services within the footprint of each of the regulated providers networks suggests that workable competition probably exists, at least in parts of these networks.<sup>219</sup> If verified, through a deregulation investigation, we would expect this competitive state to continue, or increase, without regulation of Transport services.
- 3.260 Turning to section 162, our view is that the competitive constraint stated in submissions means that it is probable that regulated providers are currently limited in their ability to extract excessive profits due to the level of competition that likely exists.<sup>220</sup>
- 3.261 Similar to our net benefit considerations set out in our assessment of Voice services, we consider that compliance costs associated with deregulation of Transport services should be considered as part of a deregulation review process.
- 3.262 Therefore, for the reasons explained above, in our view there is at least a realistic possibility that following a review we would find that Transport services in certain geographic areas should no longer be regulated (or should not be regulated by PQ regulation) in order to best give effect to section 162 and 166(2)(b). Accordingly, our final decision is that there are reasonable grounds to start a deregulation review of Transport services.

## **Connection services**

#### **Final decision**

3.263 Our final decision is that there are no reasonable grounds to start a deregulation review of Connection services.<sup>221</sup> This is unchanged from our draft decision.

## Stakeholder views

- 3.264 We received submissions on our draft decision for Connection services from Chorus, Tuatahi and Enable.
- 3.265 Chorus disagreed with our draft decision that there are no reasonable grounds to start a deregulation review of Connection services. It submitted that there is strong competition for fibre connection services in new property developments between LFCs and third-party fibre providers, as well as competition between LFCs for greenfield connections and new property development contracts.<sup>222</sup>

<sup>&</sup>lt;sup>219</sup> As per section 166(2)(b).

<sup>&</sup>lt;sup>220</sup> As per section 162(d).

<sup>&</sup>lt;sup>221</sup> As per section 210.

<sup>&</sup>lt;sup>222</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [91].

3.266 Tuatahi and Enable also disagreed with our draft decision. Both stated that they do not offer Connection services, rather, they outsource to independent third-party service providers.<sup>223</sup>

#### Reasons for our final decision

The market for Connection services and identification of alternatives

- 3.267 Connection services are services to install and enable FFLAS between communal fibre network infrastructure and an end-user's premises, building or other access point. Regulated providers typically outsource the physical connection activity to third parties to provision on their behalf. The ordering, management, billing, and overall responsibility for the connection rests with the regulated providers.
- 3.268 We consider the current market for Connection services to comprise services to provide new fibre (including associated infrastructure and equipment such as ducts).
- 3.269 For the purposes of this analysis, we considered each LFC area separately, but we note we do not need to reach a conclusion on the geographic market, as it does not affect our decision.

## State of competition in the market

Market structure and close substitutes

- 3.270 In the draft decision, we recognised that it is possible for competition to exist in the market for Connection services and we stated that, anecdotally, we are aware of some attempts made by third parties to compete with the LFCs for new developments.
- 3.271 Chorus, in its submission, stated that competition for new developments was real and much stronger than we described in the draft decision. It stated that it competes with third-party fibre providers for new developments and provided a list of current connection service providers, six of which are third-party providers.<sup>224</sup>

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [14.2]; and Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [6].

<sup>&</sup>lt;sup>224</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [93].

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- 3.272 We consider that there may be two separate markets for Connection services. The first market relates to Connection services to connect to existing LFC networks. The general trend, as submitted by Enable and Tuatahi, is that RSPs are not charged connection fees for connecting residential customers, since this would make fibre less competitive compared to FWA where no connection fee is charged. The connection costs are recovered through Bitstream PON wholesale prices. We are of the view that deregulating this service would not be in the long-term interest of consumers since it would effectively remove a cost out of Chorus' business, for which it receives no direct revenue and would have to start charging customers to connect.
- 3.273 Similarly, from an ID perspective, deregulating Connection services would remove connection costs from the regulated cost base, while regulated revenues from Bitstream PON services would still need to reflect the costs of recovering connection costs as part of the service. This would not be a logical outcome as it would lead to an over-statement of the profitability of the remaining regulated services.
- 3.274 The second market is for connecting greenfield developments. In its submission, Chorus stated that between July 2022 and November 2023, it was aware of a competing provider for 64 out of 200 greenfield projects and was of the view that there was likely a competing provider for some number of the remaining projects as well. However, Chorus did not submit that this affected its success rate, and that it was not the successful provider for these 200 projects.<sup>226</sup>
- 3.275 Chorus also submitted that, contrary to our view in the draft decision, there is competition between LFCs for greenfield connections.<sup>227</sup> While we accept that there appears to be some level of competition between regulated providers, which may increase over time given recent removal of geographic build constraints on LFCs, we are concerned that in the absence of regulation, Chorus may misuse its market power. We expand on this further in paragraphs 3.277 3.278.

## Consumer demand and switching behaviour

3.276 We do not have any data on switching behaviour between Connection services at either the retail or wholesale level. We will consider sourcing this data, potentially in the form of a representative sample, to inform our deregulation review.

Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [6]; and Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [32].

<sup>&</sup>lt;sup>226</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [92].

<sup>&</sup>lt;sup>227</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [91].

## Ability to exercise substantial market power

- 3.277 While some alternative providers may exist, they are likely isolated to narrow customer and geographic markets. In our view, it is probable that there is little competitive constraint on the ability of regulated providers to exercise SMP in relation to Connection services.
- 3.278 We know, through complaints made to our Competition, Fair Trading and Credit Branch, that Chorus is able to provide significant discounts on work involving capital contributions that rivals may find it difficult to match.

# Alignment with the purpose of regulation – sections 162 and 166(2)(b)

- 3.279 We have considered whether there is at least a realistic possibility that following a review we would find that Connection services should no longer be regulated (or should no longer be subject to PQ regulation), having regard to the purpose in section 162 and, where relevant, the promotion of workable competition under section 166(2)(b).
- 3.280 We do not consider that the promotion of workable competition under section 166(2)(b) is relevant for our final decision on whether there are reasonable grounds to start a deregulation review for Connection services. Connection services are used to establish a new service instance of primary FFLAS and as such has limited impact on wider telecommunications markets.
- 3.281 In terms of section 162, the limited competitive constraint on the regulated services means there is the potential, were there no regulation, for SMP to be exercised by regulated providers. This would not provide long-term benefit for endusers consistent with outcomes produced in workably competitive markets, in particular by:
  - 3.281.1 allowing end-users to share the benefits of efficiency gains;<sup>228</sup> and
  - 3.281.2 limiting regulated providers ability to extract excessive profits.<sup>229</sup>
- 3.282 In light of the above discussion regarding lack of competition in the market for Connection services and the potential for regulated providers to exercise SMP, our view is that there is not a realistic possibility that outcomes consistent with workably competitive markets would be best promoted, to the long-term benefit of end-users, if the services were no longer regulated. Therefore, our final decision is that there are no reasonable grounds to start a deregulation review of Connection services.

As set out in section 162(c).

<sup>&</sup>lt;sup>229</sup> As set out in section 162(d).

## Co-location and interconnected services

#### **Final decision**

3.283 Our final decision is that there are reasonable grounds to start a deregulation review of Co-location and interconnected services in Non-Chorus LFC areas.<sup>230</sup> This is a change from our draft decision and is explained below.

## Stakeholder views

- 3.284 We received submissions on our draft decision on Co-location and interconnected services from Chorus, Enable and Tuatahi.
- 3.285 Chorus disagreed with the draft decision that there are no reasonable grounds to start a deregulation review of Co-location and interconnected services. It submitted that the competitive picture is not as straightforward as suggested in the draft decision as MNOs also own exchanges and offer co-location products alongside LFCs.<sup>231</sup>
- 3.286 Enable submitted that it faces competition from Chorus, Spark, Datacom and other smaller players in the provision of Co-location and interconnected services.<sup>232</sup>
- 3.287 Tuatahi disagreed with the draft decision, noting that it does not own any exchanges and instead rents space from Chorus and Spark, making it impossible to exercise SMP.<sup>233</sup>

## Reasons for our final decision

The market for Co-location and interconnected services

- 3.288 Co-location and interconnected services are network equipment accommodation and management services, allowing RSPs to install equipment in regulated providers' exchanges.
- 3.289 Regulation of Co-location and interconnected services supports competition for the primary FFLAS services described earlier, preventing LFCs from exercising market power indirectly in those markets (via excessive prices for space in their exchanges), even if they were found to be workably competitive.

<sup>&</sup>lt;sup>230</sup> Under section 210 of the Act.

<sup>&</sup>lt;sup>231</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [102].

Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [6].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [13.2].

# State of competition in the market

Market structure and close substitutes

3.290 Due to the nature of Co-location and interconnected services, even where a competitor has built a competing exchange, it is necessary to connect to the LFC exchange (by co-locating) to be able to forward FFLAS services to the competing exchange.

# Consumer demand and switching behaviour

3.291 We do not have any data on switching behaviour between Co-location and interconnected services at either the retail or wholesale level. We will consider sourcing this data, potentially in the form of a representative sample, to inform our deregulation review.

## Ability to exercise substantial market power

- 3.292 We are now aware that Tuatahi does not own any exchanges and instead, colocates in Chorus and Spark exchanges. Under these conditions, we agree with Tuatahi that it would not be possible for it to exercise market power over Colocation and interconnected services.
- 3.293 Chorus and Enable both raised that non-LFCs own exchanges and offer competing co-location products. However, our view from the draft decision remains that a 'competing' exchange would still need to connect to an LFC exchange in some way to access primary FFLAS. This dependency weakens the ability of a non-LFC exchange to provide a sufficient competitive constraint in the face of deregulation.
- 3.294 Enable further submitted that it competes with Chorus' exchanges in Avonhead and Linwood. We recognise that there may be some level of competition between Enable and Chorus in the Christchurch area that we did not discuss in the draft decision, which warrants further consideration in terms of competitive impact.

# Alignment with the purpose of regulation – sections 162 and 166(2)(b)

- 3.295 We have considered whether there is at least a realistic possibility that following a review we would find that Co-location and interconnected services should no longer be regulated (or should no longer be subject to PQ regulation), having regard to the purpose in section 162 and the promotion of workable competition under section 166(2)(b).
- 3.296 We consider that the promotion of workable competition under section 166(2)(b) is relevant for our final decision on whether there are reasonable grounds to start a deregulation review for Co-location and interconnected services. Co-location and interconnected services are used to support the provision of other services (such as the 'primary' FFLAS) and thus impact workable competition in the downstream retail voice and broadband markets.

- 3.297 Given the stated inability of Tuatahi to exercise SMP and the possible constraint imposed on Enable by Chorus in the provision of Co-location and interconnected services, regulation of the Non-Chorus LFCs may not be needed to provide long-term benefit for end-users consistent with outcomes produced in workably competitive markets, in particular by:
  - 3.297.1 allowing end-users to share the benefits of efficiency gains; and
  - 3.297.2 limiting the ability of regulated providers to extract excessive profits.
- 3.298 We would not expect there to be any negative impact on workable competition in wider telecommunications markets (downstream retail voice and broadband) should regulation be removed from Co-location and interconnected services in Non-Chorus LFC areas.
- 3.299 As with our assessment of Voice services, we consider that compliance costs associated with deregulation of Co-location and interconnected services should be considered as part of a deregulation review process.
- 3.300 Therefore, for the reasons explained above, in our view, there is at least a realistic possibility that following a review we would find that Co-location and interconnected services should no longer be regulated (or should not be regulated by PQ regulation) in order to best give effect to section 162 and 166(2)(b). Accordingly, our final decision is that there are reasonable grounds to start a deregulation review of Co-location and interconnected services in Non-Chorus LFC areas.

# **Attachment A** Response to submissions

- A1 We received nine submissions and five cross submissions from stakeholders on our draft assessment framework paper. The tables below contain our responses to additional submission points on our draft decision to which we have not already directly responded.
- A2 Specifically:
  - A2.1 Table A1 contains submissions on the legal framework; and
  - A2.2 Table A2 contains submissions on the economic framework.

Table A1 Submissions on the legal framework

Submitter(s)	Submission	Response in cross submission	Our response
One NZ	One NZ agreed with the threshold adopted in the	Spark endorsed the Commissions' approach in the draft	We have taken these submissions into account
	Commission's draft decision and, in particular, that	decision and argued that the Commission has discretion	and agree that basing our assessment on
	the threshold should not be so low as to risk	to determine what constitutes reasonable grounds	whether deregulation is "likely" creates a high
	unnecessary reviews as the Commission needs to	under sections 162 and 210 of the Act, and it should	threshold which carries a risk of conflating the
	strike a balance between the costs and regulatory	only head down the path of a deregulation review	screening exercise with the review itself. We
	uncertainty of reviewing regulation, and the costs of	where warranted. 235 Spark also argued that the	nonetheless maintain that an appropriate
	allowing regulation to exist longer than necessary. 234	Commission shouldn't undertake a deregulation review	threshold must be applied to strike a
Spark	Spark submitted that the Commission should	lightly, as a deregulation review is a significant	proportionate balance between avoiding the cost
	require a compelling case before starting a	undertaking that would consume appreciable	of regulation that is no longer necessary to
	deregulation review. <sup>238</sup>	Commission and interested parties' resources and lead	address a lack of competition, while also avoiding

One NZ "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [2] – [3].

Spark "Cross submission on draft decision on deregulation review" (15 October 2024) at [18] – [20].

<sup>&</sup>lt;sup>238</sup> Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [3].

Submitter(s)	Submission	Response in cross submission	Our response
Chorus	Chorus argued that the Commission had incorrectly applied an overly high threshold to the question of reasonable grounds, thereby conflating the screening exercise with a substantive deregulation review. 239  Chorus agreed that "reasonable grounds" requires the Commission to have an objective view to conclude a review is warranted, but it principally requires that assessment to be done on an objective basis, rather than setting any particular evidentiary threshold. 400  Chorus submitted the "consider" in section 210 means "to think about" rather than "to be satisfied" and the question is not whether the review would be "likely" to conclude that FFLAS should no longer be regulated, but rather whether there is an objectively reasonable basis to proceed with that inquiry. 411  Chorus broadly agreed with the Commission's characterisation of the two-step inquiry as trying to balance the risk of unnecessary reviews with the risk of unnecessary regulation, 442 but disagreed that this requires the Commission to set a threshold which would proceed with a review only where the likely outcome is deregulation. 443 This approach, it submitted, conflates the screening exercise with the review itself and creates a bias against deregulation. 444	to a long period of uncertainty for consumers, RSPs and investors. <sup>236</sup>	regulatory reviews. Although we have not found it necessary to consider the cost of a review in this case, we do not agree with Tuatahi that the cost of undertaking a review is not a relevant consideration for a reasonable grounds assessment. 237  Accordingly, we have revised our approach to what we consider, in our expert judgement, to be an appropriate threshold for our reasonable grounds assessment.  We note the contrasting language in section 210(1) and section 210(3). On plain reading:  • the term "consider that" in section 210(1) appears to direct us to have reached a preliminary view (with an objective basis) that the services should no longer be regulated or subject to PQ regulation; whereas  • the term "consider whether" in section 210(3) appears to direct us to ask whether a review is warranted (with an objective basis).  On balance, and taking account of the submissions, we have reached a view that

<sup>&</sup>lt;sup>239</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [20].

<sup>&</sup>lt;sup>240</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [26].

Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [27] – [29].

Spark "Cross submission on draft decision on deregulation review" (15 October 2024) at [19].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [4.6]. We note that section 210(4) provides for the considerations the Commission may take into account in carrying out the review itself (and by implication anything that may be taken into account in the review may also be taken

Submitter(s)	Submission	Response in cross submission	Our response
Tuatahi	Tuatahi also argued that our approach in the draft decision set an unreasonably high evidentiary threshold and argued that "possible" was a more appropriate threshold than "likely". 245 Tuatahi submitted that the Commissions obligation is to determine whether reasonable grounds to start a review exist, not to conduct a shadow review, and the reasons given for adopting a higher threshold do not justify its adoption, in particular that: 246  1. the cost of undertaking the review is not a relevant consideration under section 210; and 2. the review process does not create regulatory uncertainty. 247		section 210(1) and section 210(3), read as a whole, direct us to consider whether a review is warranted on an objective basis based on the information before us. We consider that the Commission may approach our assessment in the round using our expert judgement and having regard to:  1. whether there is at least a realistic possibility that following a review, we would find that the services should no longer be regulated (or should no longer be subject to PQ regulation);  2. the purpose of section 162;

into account at the screening phase) but this is not an exhaustive list and does not preclude the Commission from taking reasonable account of other considerations, including in its reasonable grounds assessment.

Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [3].

<sup>&</sup>lt;sup>239</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [20].

<sup>&</sup>lt;sup>240</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [26].

Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [27] – [29].

<sup>&</sup>lt;sup>242</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [30].

Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [32].

<sup>&</sup>lt;sup>244</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [33].

<sup>&</sup>lt;sup>236</sup> Spark "Cross submission on draft decision on deregulation review" (15 October 2024) at [19].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [4.6]. We note that section 210(4) provides for the considerations the Commission may take into account in carrying out the review itself (and by implication anything that may be taken into account in the review may also be taken into account at the screening phase) but this is not an exhaustive list and does not preclude the Commission from taking reasonable account of other considerations, including in its reasonable grounds assessment.

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [4.2].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [4.6].

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [4.8].

Submitter(s)	Submission	Response in cross submission	Our response
Enable	Enable argued that by setting the bar as high as we did in our draft decision, the Commission is preempting the review, and submits that the Act simply requires "reasonable grounds to start a review" not "reasonable grounds to deregulate". 248 Enable recognised that there are costs of the review, but submits these need to be assessed against the likelihood of a change occurring and against the cost to industry of ongoing regulation. Enable also submitted that a deregulation outcome is highly unlikely to cause considerable uncertainty to the market. 249		<ol> <li>where relevant, workable competition under section 166(2)(b); and</li> <li>where relevant, the costs and benefits or removing regulation and of carrying out the review.</li> </ol>

Table A2 Submissions on the economic framework

Submitter(s)	Submission	Response in cross submission	Our response
Chorus	There was no analysis of profitability information disclosed under ID, nor analysis of pricing activity disclosed in Schedule 24 of ID and in price compliance and wash-up statements under PQ regulation. <sup>250</sup>	` <u>-</u>	Given the evidence before us we did not deem it appropriate to perform detailed profitability analysis. We may consider such analysis were we to undertake a deregulation review of Bitstream PON services in the future.
Chorus	A business with SMP can profitably hold prices above competitive levels for a sustained period of time. However, the Commission did not do an assessment of the pricing behaviour of Chorus and the Non-Chorus LFCs. <sup>251</sup>	-	We considered that a business has SMP when its actions are not effectively constrained by competition. This is the test we employed in our analysis throughout the draft and final decisions. Holding prices above competitive levels for a sustained period of time is one example of SMP. We may consider profitability and/or pricing behaviour analysis were we to undertake a deregulation review of Bitstream PON services in future.

<sup>&</sup>lt;sup>248</sup> Enable "Submission on FFLAS deregulation review – RGA draft decision (24 September 2024) 24 September 2024 at [5].

Enable "Submission on FFLAS deregulation review – RGA draft decision (24 September 2024) at [7] – [8].

<sup>&</sup>lt;sup>250</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [59].

<sup>&</sup>lt;sup>251</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [50] – [51].

Submitter(s)	Submission	Response in cross submission	Our response
Tuatahi	There are economic incentives for MNOs to convert fibre end-users to FWA – evidenced by a NERA report prepared for One NZ in relation to the Dense Air acquisition and Chorus in its submission on the Vocus-2degrees merger application. <sup>252</sup>	-	While retailers have a direct relationship with end-users and thus have the incentive to switch them to FWA and other technologies, we note that Chorus still retains over 70% of all sales of broadband services at the wholesale level.
Enable	Substitutes have developed rapidly (FWA & satellite) and the speed of change will only get quicker, so waiting for next review may be too high risk. <sup>253</sup>	Spark cross-submitted that there was no evidence of an increase or decrease in competition in relevant markets. The growth in FWA was more likely evidence of FWA's substitutability for copper services during the copper migration process than evidence of its competitive constraint on fibre. <sup>254</sup>	While we acknowledge that fibre has faced competition from FWA and other technologies, our view is that FWA and other technologies do not impose a sufficient competitive constraint on fibre services.
2degrees and Spark	There is a group of customers who do not purchase mobile voice services and continue to rely on fixed voice services. Chorus and the Non-Chorus LFCs have incentive to keep prices high for this group. <sup>255</sup>	According to Tuatahi, voice connections, including Baseband and Bitstream 2 services, represented 0.28% of its total connections as at 31 March 2024. <sup>256</sup>	We agree that there are customers who value a fixed voice service. However, voice only connections represent a small proportion of urban landline connections. We believe that there are alternatives in the market to ensure that regulated providers do not exercise market power to extract excessive profits to the detriment of consumers. We will explore this view further during the deregulation review of Voice services.

Tuatahi "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [9.32].

Enable "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [2].

<sup>&</sup>lt;sup>254</sup> Spark "Cross submission FFLAS deregulation review – RGA draft decision" (15 October 2024) at [1].

<sup>&</sup>lt;sup>255</sup> 2degrees "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at 1; and Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at 1; and Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at 1; and Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at 1; and Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at 1; and Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at 1; and Spark "Submission" (25 September 2024) at 1; and Spark "Submission" (25

<sup>&</sup>lt;sup>256</sup> Tuatahi "Cross submission FFLAS deregulation review – RGA draft decision" (15 October 2024) at [3.2].

Submitter(s)	Submission	Response in cross submission	Our response
Spark	We should place greater scrutiny on wholesale provider behaviour and pricing. Wholesale providers have continually been able to price to the regulated caps despite the improvement in alternative technologies and the fact that customers are generally switching towards wireless or mobile options. Also, if the Commission were to consider Voice deregulation in the future, it should consider a counterfactual of expected efficient prices in a competitive market. <sup>257</sup>	_	We have now concluded that reasonable grounds exist to go to a deregulation review for Voice services. The pricing behaviour of wholesale providers will be explored more thoroughly in this review.
Chorus	There are more providers than we identified in the draft and this is a mistake of fact. <sup>258</sup>	-	We agree that the level of competition for Point-to-point services may be higher than we initially indicated. We acknowledge that there are other providers of Point-to-point services, and we have changed our decision to find that there are reasonable grounds to start a deregulation review of Point-to-point services.
Chorus	The Commission should apply the framework used when carrying out inquiries into whether a sector or supplier should be regulated under Part 4 of the Commerce Act 1986. There is no valid policy or economic rationale to regulate Chorus more heavily than the Part 4-regulated entities which face less competition than Chorus but have fewer regulatory constraints. It also submitted that it should not face more stringent regulation than the Non-Chorus LFCs given the decline in copper connections (the constraint which made ID regulation-only sufficient). <sup>259</sup>	-	A comparison of the stringency of fibre and Part 4 regulation is not an area of consideration for this assessment, which is governed by Part 6 of Act, as outlined in the assessment framework in Chapter 2. The decline in copper connections in Non-Chorus LFC areas is a change in the level of constraint on the Non-Chorus LFCs only. The only consideration that could arise from this point is whether the Non-Chorus LFCs should be subject to more stringent regulation which, again, is out of scope for this assessment.
Chorus	ID regulation of Chorus in Non-Chorus LFC areas should be removed given it is not the incumbent provider of FFLAS services and has a small market share. <sup>260</sup>		We note that we have not seen the Non-Chorus LFCs nor Chorus offering discounts in these areas. Furthermore, even if there was evidence of competition or contestability, the admin cost of selectively deregulating individual properties is excessive and subject to continual change.

<sup>&</sup>lt;sup>257</sup> Spark "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [13] – [15].

<sup>&</sup>lt;sup>258</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [25].

<sup>&</sup>lt;sup>259</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024) at [11] and [111] – [112].

<sup>&</sup>lt;sup>260</sup> Chorus "Submission on FFLAS deregulation review – RGA draft decision" (24 September 2024 ) at [17].