



**JOINT SUBMISSION ON NEW ZEALAND COMMERCE COMMISSION
FRAMEWORK PAPER ON FIBRE FIXED LINE ACCESS SERVICE
DEREGULATION REVIEW UNDER SECTION 201 OF THE
TELECOMMUNICATIONS ACT**

16 FEBUARY 2024

**JOINT SUBMISSION BY TUATAHI FIRST FIBRE LIMITED AND ENABLE NETWORKS LIMITED ON
NEW ZEALAND COMMERCE COMMISSION FRAMEWORK PAPER ON FIBRE FIXED LINE ACCESS
SERVICE DEREGULATION REVIEW UNDER SECTION 201 OF THE TELECOMMUNICATIONS ACT**

PART 1 PUBLIC SUBMISSION

1. Introduction

- 1.1 This submission is made jointly by Tuatahi First Fibre Limited (**Tuatahi**) and Enable Networks Limited (**Enable**) in response to the *Fibre fixed line access service reregulation review under section 210 of the Telecommunications Act – draft assessment framework paper* issued by the Commerce Commission on 7 December 2023 (the **Framework Paper**).
- 1.2 There is no confidential version of Part 1 of this submission. Information about the parties' respective activities which are in the public domain is set out in Part 1 of this submission. Information which is commercially sensitive and confidential to each submitter is set out in Part 2 (**Tuatahi Confidential Submission and PowerPoint presentation**) and Part 3 (**Enable Confidential Submission and PowerPoint presentation**).

2. Executive summary

- 2.1 The deregulation review process set out in s 210 of the Telecommunications Act 2001 (**Act**) is an important feature of the regulatory regime for fibre that was introduced by the Telecommunications (New Regulatory Framework) Amendment Act in 2018. The object of the fibre regime is to regulate activities only to the extent necessary to address a lack of competition, with the Commission acknowledging that the deregulation review process "*is a necessary and appropriate feature of the Part 6, which recognises the dynamic nature of telecommunications markets*".¹
- 2.2 This is of particular importance when the decision to impose regulation on Enable and Tuatahi was finely balanced. As discussed below, officials acknowledged in 2015 that there was a significant upside risk that competition from wireless networks would prove to be greater than they had predicted, in which event the case for continued regulation of the Local Fibre Companies (**LFCs**) would be weaker. Not surprisingly given the dynamic nature of telecommunications market described by the Commission, that risk has materialised.
- 2.3 We agree with the Commission's statement at [5.5] that the "*reasonable grounds*" threshold is satisfied if it can be shown that there has been an increase in competition that **may** constrain services offered using fibre fixed line access services (**FFLAS**). While in our experience those constraints are in fact of such extent that continued regulation is no longer required, for the purposes of this response to the Framework Paper it should not be necessary to satisfy the Commission on this point as part of the "*reasonable grounds*" assessment as the Commission seems to suggest at [2.10]. This is properly the subject-matter of the deregulation review.
- 2.4 Section 210(4)(a) provides that a deregulation review "*may consider whether competition to 1 or more fibre fixed line access services has increased or decreased in a relevant market.*" The comparison date for this assessment must be when the decision to impose regulation on Tuatahi and Enable was made, namely 2016 (following an extensive review of competition and public consultations during 2015 and 2016), not (as the Commission suggests) 1 January 2022 when Part 6 came into effect. The steps that followed the 2016 cabinet decision (including the passing of the Act, promulgation of regulations, and the implementation of the fibre regime) were merely steps taken to give effect to the 2016 decision.
- 2.5 We agree that the Commission's approach to considering FFLAS in service categories is appropriate where all services within the service category face the same competitive constraints, which is the case for all service categories other than bitstream PON services which account for more than 90% of our revenue. We submit that this "service category" should be further divided into fast (up to and including

¹ NZ Commerce Commission *Fibre Input Methodologies Main Final Reasons Paper* 13 October 2020 [2.182]

300Mbps download), faster (301Mbps to 1Gbps), and fastest (above 1Gbps) PON bitstream services which allows for analysis of the specific competitive constraints on each separate product group.

- 2.6 However, while the service categories represent a useful concept to group similar services together, the Commission must also bear in mind that the *Telecommunications Regulated Fibre Service Providers Regulations 2019* define the Tuatahi and Enable regulated services as “**all fibre fixed line access services**”, and that the requirement in s 210 is to consider whether there are reasonable grounds to start a review on “**how 1 or more fibre fixed line access services are regulated under [the Act]**”. On that basis, it is necessary to assess the impact of increased competition on every regulated service that Tuatahi and Enable provide.
- 2.7 The Commission’s focus must be on the constraints in wholesale markets (other than indirect retail constraints). As the Commission is aware, neither Tuatahi nor Enable are permitted to provide retail services or telecommunications or other services to end-users and their largest wholesale customers also supply unregulated fixed wireless access (**FWA**) services in direct competition to FFLAS. As s 210(4)(a) only requires competitive impact “**in a relevant market**”, it is sufficient to establish increased competition at the wholesale level alone to satisfy the “**reasonable grounds**” test.
- 2.8 As discussed in section 7, the cost of FFLAS regulation is significant and regulation does not deliver any benefits to end-users; competitive pressures are delivering all the benefits that regulation (which assumes a lack of competition) is designed to achieve. Continued regulation therefore provides no benefit to end-users of fibre services.
- 2.9 The current regulatory settings also breach the principle of technology neutrality, in that broadband services delivered over a fixed wireless network are unregulated while equivalent services delivered over a fixed fibre network are subject to Part 6 regulation.
- 2.10 As we discuss in sections 8 and 9 of this submission, competition has increased to all FFLAS services offered by Tuatahi and Enable since the decision to regulate them was made in 2016, and with greater intensity since the introduction of 5G wireless services in 2021 (Spark and One) and 2022 (2degrees). We submit that the “**reasonable grounds**” threshold for the Commission to undertake a Part 6 deregulation review under s 210 is clearly met.

3. Reasonable grounds assessment

- 3.1 We agree that the Act requires the Commission to consider before 1 January 2025 whether there are reasonable grounds to start a review to consider how FFLAS are regulated under Part 6 of the Act, and (in the case of Tuatahi and Enable) whether 1 of more of those services should no longer be regulated.
- 3.2 We agree that, in determining whether there are reasonable grounds to start a review, the Commission must make a decision that is likely to best give effect to the purpose of Part 6 (to promote the long-term benefit of end-users in markets for FFLAS by promoting outcomes consistent with workably competitive markets and, to the extent relevant, the promotion of workable competition in telecommunications markets more broadly).²
- 3.3 The Commission expresses the view that “**we consider that reasonable grounds to investigate whether a service should no longer be regulated...exist where there is evidence that *circumstances may have changed to such an extent that continued regulation is no longer necessary* to best promote the long-term benefit of end-users in markets for FFLAS**”.³
- 3.4 The Commission later says that “**in considering whether competition to 1 or more FFLAS has increased or decreased since the date of comparison, we are interested in the emergence or expansion of**

² NZCC Fibre fixed line access service deregulation review under section 201 of the Telecommunications Act framework paper, December 2023 (**Framework Paper**) [2.6]

³ Framework Paper [2.10] (own emphasis)

alternative networks offering services that may represent a competitive constraint of services that are offered using FFLAS".⁴

- 3.5 We submit that this later statement sets out the threshold that the Commission should apply in its assessment. Reasonable grounds must exist where, as we explain in this submission, alternative networks have expanded or emerged that have significantly increased the competition Tuatahi and Enable face in the wholesale fibre market.
- 3.6 While, as we explain below, those constraints are in fact of "*such extent that continued regulation is no longer necessary*", it should not be necessary in our submission to satisfy the Commission on this point as part of the "*reasonable grounds*" assessment. This is properly the subject-matter of the deregulation review. For that reason, we submit the Commission's description of the "*reasonable grounds*" assessment as a "*pre-review*"⁵ is inappropriate. The Commission's obligation is to determine whether reasonable grounds to start a review exist, not to conduct a shadow review covering the subject matter of the deregulation review itself.

4. Date of comparison for competition assessment

- 4.1 Section 210(4)(a) provides that a deregulation review "*may consider whether competition to 1 or more fibre fixed line access services has increased or decreased in a relevant market.*" The Act does not define the date from which the comparison is to be made. For a second or subsequent review the comparison date would clearly be the date of the last review, but for the first review the Commission must determine the comparison date.
- 4.2 The Commission's view is that "*as this is the first reasonable grounds assessment under s210, we consider the most appropriate date from which to assess whether there may have been a change of circumstance is the date from which the regulation of FFLAS came into effect, which was 1 January 2022*".⁶
- 4.3 We disagree with the proposed date. In our submission, s 162 requires the Commission to select the date closest to the time the competition assessment which led to the decision to impose regulation on Tuatahi and Enable was undertaken.
- 4.4 There are eight potential comparison dates:
- (a) **September 2015 – June 2016** when MBIE consulted on the underlying regulatory settings for telecommunications markets to apply from 2020;
 - (b) **December 2016** when Cabinet, based on that consultation process, made the decision to amend the Telecommunications Act to, among other things, impose information disclosure regulation on fibre services supplied by Tuatahi and Enable;
 - (c) **16 August 2017** when the Telecommunications (New Regulatory Framework) Amendment Bill was introduced to Parliament;
 - (d) **12 November 2018** when the Telecommunications (New Regulatory Framework) Amendment Act was passed;
 - (e) **June 2019** when MBIE released an *Exposure draft of regulations to be made under s 226 of the Telecommunications Act 2001, Request for submissions*;
 - (f) **18 November 2019** when the Telecommunications Regulated Fibre Service Providers Regulations 2019 were promulgated by Order in Council;

⁴ Framework Paper [5.5]

⁵ Framework Paper [1.4]

⁶ Framework Paper [2.13]

- (g) **1 January 2020** when the new regime was originally intended to come into effect; and
 - (h) **1 January 2022** when the new regulatory regime came into effect following a two-year deferment of the implementation date by the Minister at the request of the Commission.
- 4.5 In our submission, the appropriate date must be no later than the date the decision to regulate was made following intensive market analysis, namely December 2016. The steps taken during the six-year period that followed the 2016 cabinet decision (the passing of the Act, promulgation of regulations, and deferment of the implementation date) were merely to implement the 2016 decision.
- 4.6 The December 2016 cabinet paper *“Review of the Telecommunications Act 2001: Final Policy decisions for fixed line communication services”* sets out the history of the competition assessment which had been undertaken to reach the decision to impose regulation on Enable and Tuatahi:
- (a) The object of the new regime was to regulate *“activities only to the extent necessary to address a lack of competition”*.⁷
 - (b) The Minister released a discussion document *“Regulating Communications for the Future”* in September 2015, which *“took a broad look at the underlying regulatory settings for communications markets and set the scene for reform after 2020”*.⁸
 - (c) Following consideration of submissions, Cabinet released an Options Paper in June 2016 seeking feedback on the introduction of a proposed building blocks model (BBM) for fibre fixed line services. This resulted in large numbers of submissions, supported in some cases by expert reports.⁹
 - (d) In addition to considering these submissions and reports, officials were *“aided by an independent expert in both areas of utility and telecommunications regulation, who provided advice on design as well as critical feedback throughout the process on officials advice”*. The Minister was therefore confident the reforms he proposed in December 2016 *“[represent] the best package to deliver on our objectives”*.¹⁰
- 4.7 The recommendation arising from this assessment, which Cabinet approved, was that from 2020 information disclosure regulation and price quality regulation would apply to fibre services. Chorus would be subject to both forms of regulation but Tuatahi, Enable and the other local fibre companies would be subject only to information disclosure regulation. According to the Minister *“LFCs face more competitive constraint on their services than Chorus does, and I believe this proportional approach is justified”*.¹¹
- 4.8 Enable in its submission to the Select Committee on the Telecommunications (New Regulatory Framework) Amendment Bill in February 2018 argued that the Bill should be amended so that regulation was imposed on it only if the Commission determined that Enable was able to exercise a substantial degree of market power.¹² This submission was rejected on the basis that *“the proposed amendment was not consistent with the intended policy intent”*.¹³

⁷ *Review of the Telecommunications Act 2001: Final Policy decisions for fixed line communication services (Cabinet Paper)* [4]

⁸ Cabinet Paper [8]

⁹ Cabinet Paper [10]

¹⁰ Cabinet Paper [11]

¹¹ Cabinet Paper [24]

¹² Enable, *Submission to the Economic Development, Science and Innovation Committee* 2 February 2018 [3.4]

¹³ Departmental report to the Economic Development, Science and Innovation Committee *Telecommunications (New Regulatory Framework) Amendment Bill* 20 April 2018 at 45

4.9 Finally, we note that in its November 2023 briefing to the incoming Minister for Media and Communication the Commission acknowledged that the 2018 amendments to the Act were determined “*following many years of policy development and consultation*”.¹⁴

4.10 It accordingly follows that December 2016 is the appropriate comparison date for the first deregulation review, and the material changes in the telecommunications competitive landscape in the period from 2017 to 2024 are relevant to the Commission’s assessment.

5. FFLAS service definitions

5.1 The Commission proposes to carry out a reasonable grounds assessment in respect to each service category of FFLAS it identified in its final reasons paper for Chorus’ first price quality path. Its approach is to group FFLAS into “*service categories*”, which it describes as groupings of tailored services provided by regulated providers to meet market segments.¹⁵

5.2 It has accordingly grouped “*all of the relevant variants*” of FFLAS using UFB Reference Offer categories where relevant, namely:

- (a) voice services (including anchor services, baseband, ATA voice);
- (b) bitstream PON services (including anchor services, bitstream services, 10GPON, NGPON and multicast);
- (c) unbundled PON services (PONFAS and unbundled fibre services);
- (d) point-to-point services (Bitstream 4, HSNS, BFAS and DFAS);
- (e) transport services (including ICABS, TES and inter-CO fibre services);
- (f) co-location and interconnected services (including CO and POI colocation services, handover connections, tie cables and jumpering); and
- (g) connection services (connection from communal infrastructure to end-user’s premises including pre-wiring, cable and duct fit out).

5.3 Bitstream PON services represent more than 90% of Tuatahi’s and Enable’s FFLAS revenue. While we think the Commission’s approach to grouping FFLAS services into categories is appropriate where all services within the service category face the same competitive constraints, we do not think it is appropriate for bitstream PON services because competition for those services comes from a range of competing broadband technologies. We submit that this “*service category*” should be further divided into fast (up to and including 300Mbps download), faster (301Mbps to 1 Gbps), and fastest (more than 1Gbps) PON bitstream services, which will better identify the competitive constraints which differ between each tier.

5.4 The Commission must also, however, bear in mind that the *Telecommunications Regulated Fibre Service Providers Regulations 2019* define the Tuatahi and Enable regulated services as “*all fibre fixed line access services*”.¹⁶ This means that every service that Tuatahi and Enable provide that enables access to and interconnection with their respective fibre network is a regulated service, including each variant that falls within a Commission “*service category*”.

5.5 A full list of all FFLAS supplied by Enable and Tuatahi is set out in their respective filings with the Commission under Schedule 25(i) of the Fibre Information Disclosure determination. The filings disclose that Enable and Tuatahi each supplied more than 100 regulated fibre services as at December 2023 (Enable) and September 2023 (Tuatahi).

¹⁴ NZCC *Briefing to the Incoming Minister Media and Communications* 28 November 2023 [17]

¹⁵ NZCC, *Chorus’ price-quality path from 1 January 2022- Final decision Reasons Paper*, 16 December 2021 [D15] – [D17]

¹⁶ Reg 5, *Telecommunications Regulated Fibre Service Providers Regulations 2019* (own emphasis)

5.6 The Commission is required to consider whether there are reasonable grounds to start a review on “how **1 or more fibre fixed line access services are regulated under [the Act]**”.¹⁷ Competitive constraints differ between many of the services within each “service category”. In our submission, while the service categories are useful conceptually to group similar services together, we consider the correct approach is to assess whether competition has increased or decreased in a relevant market for every regulated service that Tuatahi and Enable provide. We discuss changes in competitive conditions in respect to each of these services below.

6. Relevant services

6.1 The Commission’s preliminary view is that it:¹⁸

[...] should start with the regulated service in question (which in this case is FFLAS, supplied at the wholesale level) and then look at how the service is being used to offer services to end-users. We intend to consider what alternative retail services may be available to end-users in the retail market, and whether these alternatives represent a competitive constraint on the supply of FFLAS-based retail services.

6.2 In relation to FFLAS supplied at the wholesale level, the Commission will consider:¹⁹

- (a) direct substitutes for FFLAS, including evidence of access seekers switching, or threatening to switch, between wholesale services;
- (b) evidence of substitute networks acting as a genuine competitive constraint; and
- (c) indirect constraint at the retail level where retail customers have switched to a non-FFLAS retail service in the face of an increase in a retail price following an increase in the wholesale FFLAS price.

6.3 In relation to retail services, the extent to which other non-FFLAS-based retail services represent a competitive constraint on FFLAS-based retail services will, in the Commission’s view, depend on a number of factors, including:

- (a) whether the alternative network relies indirectly on FFLAS (e.g., FWA using fibre backhaul);
- (b) geographic footprint of alternative networks;
- (c) capacity of alternative networks to meet demand; and
- (d) whether the alternative retail service is a close economic substitute (price, speed, data allowance, latency and other performance characteristics).²⁰

6.4 In our submission, the Commission’s focus must be on the constraints in wholesale markets (other than indirect constraint referred to at [6.2(c)] above). As the Commission is aware, neither Tuatahi nor Enable is permitted to provide retail services or telecommunications services (or any other type of service) to end-users. Each LFC is wholly reliant on its wholesale customers to consume their FFLAS in providing retail services to end-users, and the LFC has no control over their retail activities. The LFCs’ major wholesale customers also supply retail FWA services in direct competition to the fibre retail services they also provide using LFC wholesale inputs, the three Mobile Network Operators (**MNOs**) directly and other wholesale customers such as Contact under wholesale agreements with the MNOs.

¹⁷ Section 210(1) and (3), Telecommunications Act 2001 (own emphasis)

¹⁸ Framework Paper [2.28]

¹⁹ Framework Paper [2.32]

²⁰ Framework Paper [2.30]

- 6.5 This separation results in a distorted retail market. As Chorus observed in its submission on the Vocus-2degrees merger application, wholesale markets for fixed-line broadband and voice services currently contain multiple operators competing on an uneven playing field where large vertically integrated unregulated fixed/mobile operators had a strong incentive to move customers onto their own networks.²¹
- 6.6 Importantly, however, a competitive impact only needs to be shown “*in a relevant market*”, and the “*reasonable grounds*” test is satisfied by increased competition at the wholesale level. The analysis which follows illustrates clearly that there has been an increase in competition to all the wholesale FFLAS provided by Tuatahi and Enable in all of the Commission’s “*service categories*” and our three PON bitstream sub-categories. Therefore, there are reasonable grounds for the Commission to start a deregulation review in respect of every FFLAS listed in their respective Schedule 25(i) disclosures.
- 6.7 In section 8 we discuss the increase in competition on FFLAS generally, and in section 9 we explain (at a high level for the purposes of the Commission’s reasonable grounds assessment)²² how the increase in competition has impacted services in each of the Commission’s “*service categories*”.
- 6.8 While more relevant to the deregulation review, we think it is appropriate for the Commission during its reasonable grounds assessment to bear in mind the principles that were applied when the decision to impose regulation was made, as this is relevant to the fundamental issue for the deregulation review: whether continued regulation is still necessary to best promote the long-term benefit of end-users in markets for FFLAS.²³ Those principles were that “*regulation is only applied to the extent necessary to address a lack of competition*”²⁴ and “*where possible, policies and regulation should be platform and technology neutral*...”²⁵

7. Cost benefit analysis

- 7.1 The Commission has recognised that “*the costs of benefits that may result from deregulation will be relevant considerations*” and noted that it “*may have regard to any evidence of these costs and benefits when considering whether there are reasonable grounds to consider how FFLAS is regulated*”.²⁶
- 7.2 We set out in Part 2 and Part 3 of this submission the annual cost in dollars and resources and the opportunity cost that information disclosure regulation imposes on Tuatahi and Enable respectively. These costs not only put them at a competitive disadvantage to their unregulated FWA competitors, but regulation does not result in any long-term benefit for end-users, as competition is delivering the outcomes encapsulated in s 162.

8. Increase in competition in the wholesale fibre market since 2016

- 8.1 The purpose of Part 6 regulation is to promote outcomes consistent with outcomes produced in workably competitive markets. For that reason, the policy is that regulation is applied only to the extent necessary to address a lack of competition.
- 8.2 As we discuss in the following sections of this submission, there have been a large number of significant changes in the competitive landscape impacting wholesale fibre services from the decision to regulate in 2016 to the present such that there is no lack of competition which regulation is required to address. Competition is delivering the competitive market outcomes listed in s 162 of the Act.
- 8.3 The most significant of these developments have been:

²¹ Chorus *Submission on Vocus and 2degrees merger clearance* application 15 February 2022 [29]

²² More detailed analysis will be provided in the deregulation review process.

²³ Framework Paper [2.10] (own emphasis)

²⁴ Cabinet Paper [4], Explanatory Note to the *Telecommunications (New Regulatory Framework) Amendment Bill, 2*

²⁵ MBIE, *Regulating communications for the future Review of the Telecommunications Act 2001*, September 2015 (**2015 Review Document**)

²⁶ Framework Paper [2.34]

- (a) the rollout of mobile and fixed 5G wireless broadband services in 2021 and 2022 by the three MNOs;
- (b) a significant reduction in the retail price of FWA services since 2017;
- (c) the acquisition by the three MNOs of independent “fibre champion” retail service providers (**RSPs**);
- (d) MNO wholesale FWA agreements with Mobile Virtual Network Operators in 2022;
- (e) for Enable, aggressive (and misleading) marketing by the competing HFC network; and
- (f) the emergence of satellite broadband as an alternative network.

Fixed wireless

8.4 The September 2015 review of the Act concluded that competition from wireless broadband was “*unlikely to be sufficient to act as a competitive constraint on future wholesale pricing of the UFB network in 2020*”²⁷. Wireless networks have in fact proved to be far more competitive than anticipated. As the table below taken from the Commission’s Annual Monitoring Reports show, the fixed wireless share of broadband connections increased from 3% in 2016 to 17% in 2022:

Fixed Broadband by Technology (%)

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--------------|------------|------------|------------|------------|------------|------------|------------|
| Fibre | 368 | 460 | 669 | 880 | 1,145 | 1,180 | 1,259 |
| Copper | 1,132 | 1,000 | 775 | 581 | 441 | 308 | 230 |
| Fibre/Copper | 1,500 | 1,460 | 1,444 | 1,464 | 1,486 | 1,488 | 1,489 |
| F/C % | 97% | 93% | 90% | 89% | 87% | 85% | 83% |
| FWA | 40 | 117 | 165 | 188 | 221 | 276 | 315 |
| FWA % | 3% | 7% | 10% | 11% | 13% | 15% | 17% |
| Total | 1,540 | 1,577 | 1,610 | 1,649 | 1,707 | 1,760 | 1,804 |

8.5 This growth is accelerating as a consequence of the significant investment by MNOs to increase 4G availability, and the national launch of 5G services in 2021, combined with the strong marketing and incentive push by FWA providers to move customers to their FWA retail service (as opposed to a fibre service using LFC wholesale inputs). According to TUANZ, 5G is up to 100 times faster and has lower latency by a factor of five compared to 4G services.²⁸ One NZ states that “*4G FWA has a relatively limited lifespan and will soon be replaced by 5G FWA*”.²⁹

8.6 Spark and One NZ introduced 5G services nationally in 2021, while 2degrees launched 5G services in February 2022:

- (a) When Spark first launched its 5G trial broadband service in selected areas in 2019, its Technology Director noted:³⁰ “*The much higher data cap on 5G wireless broadband opens up an attractive proposition for a lot more customers, as it can offer fibre-like speeds in places with no or limited fibre coverage.*”

²⁷ 2015 Review document [38]

²⁸ Tech Users Association of New Zealand *An introduction to 5G* <http://tuanz.org.nz>

²⁹ One NZ *Preliminary response of One NZ to the submission by 2degrees to the Commerce Commission regarding the clearance application by One NZ relating to the proposed acquisition of Dense Air* 18 December 2023 (**One NZ Cross-Submission**) [2.4]

³⁰ Spark delivers New Zealand’s first 5G commercial wireless broadband into five heartland communities (28 November 2019) https://www.sparknz.co.nz/news/Spark_delivers_NZ_first_5G_commercial_wireless_broadband/

- (b) One NZ made similar comments regarding its 5G launch in 2021:³¹ *“Vodafone 5G Broadband is a future-proofed broadband technology with a simple plug-in-and-go setup and unlimited data delivered via the mobile network, providing fast internet access without the fuss of coordinating a technician or getting a fixed line installed or connected [...] Our testing shows 5G Broadband download speeds on the Vodafone network could reach up to 750 Mbps – with 5G surpassing 1 Gbps speeds in optimum conditions. **This compares well with other broadband technologies including fibre.**”*
- (c) When 2degrees launched its 5G network in 2022, its CTO noted:³² *“This is the start of a new journey for 2degrees and our customers. 5G is more efficient, more flexible, provides much more capacity and is much faster. 5G is the platform to enable a new generation of services which require more speed, lower latency, higher reliability, and continued security. 2degrees is continuing to invest to enhance our world class network”.*
- 8.7 One NZ intends to migrate 25% of its customers to FWA by 2024³³ while Spark plans to move 30% to 40% of its then fixed line broadband customers to FWA.³⁴ Spark also announced in 2023 that ~30% of its broadband customers were on wireless broadband, and that its 5G investments were maturing and would underpin future growth in consumer and B2B markets.³⁵
- 8.8 2degrees was acquired by Vocus (at that time the largest fibre broadband retailer which did not also offer a competing FWA service with a 12% market share) in June 2022. One of the purposes of that acquisition was to convert Vocus’ retail customers to fixed wireless:
- The combination of fixed and mobile infrastructure assets should also enable the merged entity to compete with Spark and Vodafone more effectively for the provision of fixed wireless broadband services. An increased customer base, through combining the migration opportunity of 2degrees’ and Vocus NZ’s customers from copper to a fixed wireless solution, will offer the merged entity economies of scale, allowing it to provide more competitive services to customers. Fixed wireless broadband increases the overall utilisation of the mobile network, improves return on investment and supports future capital investment. A larger customer base will also reduce the forecasting risk with fixed wireless broadband, which is important for network planning.”*³⁶
- 8.9 Unsurprisingly therefore, the growth of FWA is predicted to continue. According to GlobalData³⁷, fixed wireless currently accounts for 19.5% of broadband connections, and is predicted to grow to 26.3% by 2028. In tandem with the increase in 5G FWA performance and coverage, the retail price of FWA services has fallen significantly since 2019 as shown in the Commission’s data:

³¹ One Fast without the fuss: Vodafone NZ launches 5G Broadband for easy and reliable internet in homes and businesses (22 February 2021) <https://media.ome.nz/5gbroadband>

³² 2degrees 5G is here! (28 February 2022) <https://www.2degrees.nz/media-release-archives>

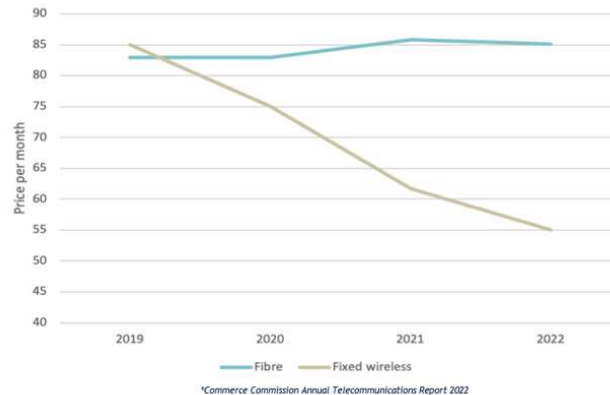
³³ NZ Herald Vodafone NZ first to go big with 5G wireless 22 February 2021

³⁴ NZ Herald Wireless ambition, Spark has begun migrating its fixed-line broadband users en masse to fast in-house technology, cutting UFB out of the loop 25 February 2021

³⁵ Spark FY23 Results Summary p5

³⁶ Vocus and 2degrees Merger clearance application 15 February 2022

³⁷ Revenue of New Zealand’s Fixed Communication Services to Reach \$1.56bn (30 October 2023) <https://www.telecomlead.com/broadband/revenue-of-new-zealands-fixed-communication-services-to-reach-1-5-bn-113201>



- 8.10 The significant fall in the retail price of fixed wireless broadband services over a period when the MNOs were investing heavily in upgrading their networks to 4G and then 5G capability, and with no corresponding fall in the retail price of mobile wireless broadband services suggests a degree of cross subsidisation of fixed services by mobile services.
- 8.11 The Commission is well aware of the response of FFLAS providers to pricing pressure from FWA competition. For example:
- (a) Tuatahi introduced a 1Gbps service in 2016 at a wholesale price of \$55, followed by Enable in March 2018 at a wholesale price of \$50 compared to the \$385 price calculated using the building block price methodology in the CIP contracts. Despite the attractive pricing, uptake was low because there was little demand for higher speed broadband services.
 - (b) In December 2021, Chorus, Tuatahi and Enable all upgraded their 30/10 broadband plans to 50/20 and their 100/20 plans to the 300/100 Bitstream 2 product for no additional cost. Chorus acknowledged that this move was designed “to ensure its UFB plans were better value when compared to alternative technologies such as fixed-wireless broadband from which Chorus does not get any revenue”.³⁸
 - (c) In September 2023, both Enable and Tuatahi introduced a 50/10 “fibre starter” service at a wholesale price of \$38 and a condition the retail price could not exceed \$60 to provide a fibre service at a retail price point equivalent to the FWA price.
- 8.12 Notwithstanding these competitive responses, as discussed above FWA has steadily increased its share of broadband connections at the expense of fixed-line services.
- 8.13 While it may be the case that FWA services perform best in densely populated urban areas and are not yet available throughout New Zealand, the constraint FWA imposes on fibre services has national reach because RSPs price on a national basis and require wholesalers to price on the same basis. As a consequence, end-users in areas where competition is less intense receive the benefits of price reductions responding to intense competition in urban areas.
- Mobile wireless**
- 8.14 The introduction of 5G together with Wi-Fi hotspots has led to a growing segment of end-users obtaining broadband services entirely over mobile devices, without any fixed connection. Based on available market data we estimate that between 5% and 10% of New Zealand residences are mobile

³⁸ <https://www.stuff.co.nz/business/126248136/chorus-offers-to-triple-ufb-speeds-for-600000-households-and-firms-for-free>

only services; in contrast, 16% of Australians were mobile-only for broadband in 2020³⁹ while in the United States 15% of adults are on mobile-only plans.⁴⁰

Acquisition of “fibre champion” RSPs

- 8.15 A significant feature of the market was the emergence of small RSPs, such as Orcon, MyRepublic and Stuff Fibre, who partnered with LFCs to promote the benefits of fibre as a superior broadband technology.
- 8.16 These “fibre champions” are now all owned by 2degrees which operates its own competing FWA networks, and joint fibre promotions with RSPs are a thing of the past.

Wholesale FWA

- 8.17 Some MNOs have entered into wholesale FWA agreements with RSPs, such as Spark with Mercury.
- 8.18 These developments have resulted in more than 84%⁴¹ of the retail broadband market being supplied by operators who offer their own competitive broadband access service.

Enable also faces HFC competition

- 8.19 Enable in addition faces intense competition from One NZ’s HFC network which covers 40% of addresses in the Enable region, and which is advertised as being “Faster than fibre.”⁴² As the Commission is aware, between 26 October 2016 and 28 March 2018 Vodafone engaged in conduct liable to mislead consumers that its HFC service was delivered over Enable’s UFB network.⁴³

Satellite broadband

- 8.20 Satellite broadband (using low-earth orbit satellites) is an emerging competitive technology that is available in both urban and rural areas. Satellite broadband is transmitted wirelessly using a satellite and ground-based satellite dish. The most well-known NZ provider, Starlink, launched its satellite broadband service in New Zealand in 2021. Starlink plans start from USD \$99/month with an upfront cost for the broadband receiver equipment.
- 8.21 The popularity of satellite broadband has not gone unnoticed by the MNOs, with One NZ now offering a business satellite broadband package in conjunction with Starlink. Starlink broadband data has been included in the Commission’s Measuring Broadband reports from June 2023, with the latest report noting that satellite broadband currently has “[t]ypically higher download speeds than a Fibre 100 plan” but this can vary with location.⁴⁴

³⁹ <https://www.acma.gov.au/publications/2020-12/report/mobile-only-australia-living-without-fixed-line-home>

⁴⁰ Pew Research Centre *Mobile Fact Sheet* 31 January 2024 <https://www.pewresearch.org/internet/fact-sheet/mobile/>

⁴¹ NZCC *Monitoring Broadband report* at 31

⁴² One NZ *Great value HFC Broadband* [HFC Broadband. A fast hybrid cable broadband, available in certain areas. One NZ.](#)

⁴³ NZCC *Vodafone found guilty of misleading conduct over “FibreX” service* 28 April 2021

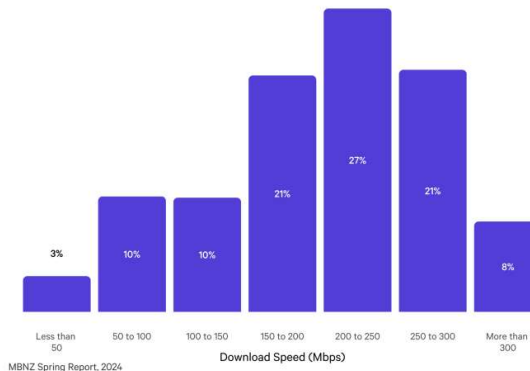
⁴⁴ *Measuring Broadband* (30 January 2024) at 7

Distribution of LEO Satellite Results

Figure 13: Download Speeds on LEO Satellite Plans.

Distribution of test results across 58 Satellite units.

Average (24/7) download speeds for LEO Satellite plans is 210 Mbps in non-Fibre areas; this varies over time



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Incentives and innovation

- 8.22 To meet the competitive threats outlined above, both Enable and Tuatahi have provided incentives to RSPs and end-users to encourage fibre uptake. In addition, both are innovating in response to competition by, for instance, connecting premises to fibre without an obligation on the end-user to order a fibre service. This is a direct response to the ability for a customer to connect to fixed wireless either on the same day (or within 24 hours if a FWA modem needs to be delivered) and allows the end-user to get a fibre service connected within a similar timeframe.
- 8.23 If fibre had natural monopoly characteristics (which is the premises on which the current fibre regulatory settings are based) incentives and connections without orders would not be necessary because there would be no alternative services available to end-users.
- 8.24 Examples of these incentives include:

Enable

- (a) October 2020 – residential promotion targeted at FWA, copper and HFC - \$300 per new connection and additional \$250 per connection from HFC.⁴⁵
- (b) March to May 2021 – Residential Wholesale Incentive targeting copper, HFC and FWA with tiered achievement payments of either \$200 or \$400 per connection.⁴⁶
- (c) February 2022 to April 2022 – Residential targeted migration offer - targeted at HFC addresses with credits to end users of between \$750 and \$2,000.⁴⁷
- (d) September to October 2022 – Residential Targeted Direct Sales Offer – Residential Wholesale Incentive with different payments dependent on the direct sales methodology used. Targeting copper and FWA. Incentives of between \$950 - \$1250 with most of that going to end users via the RSP.⁴⁸
- (e) October to November 2023 – Residential Targeted Direct Sales Offer – discounted wholesale rate for 36 months targeting HFC addresses. RSPs received \$25/month off of the wholesale

⁴⁵ Enable 20201005 Residential Wholesale Offer

⁴⁶ Enable 20201221 Informer - Residential Wholesale Fibre Upgrade Offer

⁴⁷ Enable 211217 Residential Targeted Migration Offer

⁴⁸ Enable 220704 RSP Informer – Residential Targeted Direct Sales Offer

rate if they hit a minimum 500 orders and targeted an Enable provided address list with D2D teams.⁴⁹

Tuatahi

- (a) Since 2015 – free or heavily subsidised premises networking (internal fibre set-up) services as a way to stimulate the transition of copper to fibre services.
- (b) Since 2019 – 1G education pricing offer - \$120 special price for BS3 Education 1Gb service for schools.
- (c) From July 2022 and available until 30 June 2024 – Digital Equity Offer of \$19.50 for a 200/100 service for qualifying connections.
- (d) From November 2023 – a Fibre Migration credit of \$100 for qualifying connections.

8.25 In relation to proactive fibre connections:

- (a) Tuatahi created a programme called “Get Fibre Ready” (**GFR**), trialled in 2018/2019, which aims to create a seamless connection experience for the consumer by proactively funding the capex to install fibre connections (including the ONT) into new premises without a fibre order. The full fibre installation works are performed as part of the build process, and prior to the owner moving in or ordering fibre. The significant capital cost is at Tuatahi’s risk until a customer orders fibre.
- (b) Enable initiated a similar proactive investment strategy in January 2018 for Brownfield premises and from FY23 commenced proactive investments for both Greenfield premises and multi-dwelling units. This strategy was implemented for the same reasons stated above – to offer a seamless connection experience for consumers. While this poses a capital investment risk, Enable is willing to accept this risk in order to compete with FWA.

Sales and marketing activities

8.26 It has also been necessary for both Tuatahi and Enable to make significant investments in sales and marketing activities, which while being a feature of competitive markets, would not be necessary in the absence of competition. Details of these activities are set out in Parts 2 and 3 of this submission.

Future competition

8.27 The intensity of competition discussed above is expected to increase. Spark, for instance, in its December 2023 submission on Chorus’ PQP2 expenditure proposal stated:

“Operators are deploying next generation broadband technologies. We will likely see the impact of new wireless and satellite systems and while we do not know the full extent of their impact, the upgraded services will likely be an attractive option for an increasing number of end users. Spark has committed to accelerating deployment of its 5G network, aiming to expand 5G connectivity to all towns with a population of more than 1,500 people by the end of June 2026 using the recent allocated C-band spectrum.”⁵⁰

“Spark’s unlimited Everyday Wireless plan is widely available across urban and rural addresses ...We have already provided information to the Commission relating to the availability of our unlimited service in the context of the rural study”.⁵¹

⁴⁹ Enable 230821 – RSP Letter of Offer Enable Residential Targeted Direct Sales Offer FY24

⁵⁰ Spark, *Fibre price-quality regulation: process and approach for the 2025 -2028 regulatory period* 14 December 2023 (**Spark 2023**) 5c

⁵¹ Spark 2023, 18a

- 8.28 The competition analysis undertaken in 2015 concluded mobile networks did not provide a competitive constraint to fixed line services because:

“mobile data services are still likely to provide a less consistent service and remain more expensive than equivalent fixed line services. For example, with Spark, \$79 gets you 5GB of data on an open term mobile broadband plan, whereas customers can get 80GB for \$69 and unlimited data for \$89 on naked fibre and ADSL plans.”⁵²

- 8.29 This can be contrasted with the situation in 2023 where (for example) Spark’s Everyday Wireless Broadband service referred to at [8.27] above provides unlimited data (subject to a Fair Use Policy) for \$60 per month⁵³, Spark’s Endless mobile plan provides unlimited data and a hotspot (subject to a Fair Use Policy) alongside other benefits for \$90 per month,⁵⁴ and Spark’s Everyday Fibre 50 plan with unlimited data for \$81 per month.⁵⁵
- 8.30 Investment bank UBS’ 2023 report on NZ telecommunications predicts a churn from fibre to FWA as a result of the retail price gap between FWA and fibre of \$15-\$20, increasing FWA uptake and increasing the risk of market share loss for Chorus, which it believed would have difficulty in fully recovering its MAR *“in the wake of increasing wireless competition and consumer affordability”*. UBS recommended *“Buy SPK and Sell CNU”*.⁵⁶
- 8.31 Fixed wireless data services are now significantly less expensive than equivalent fixed line services, a complete reversal of the situation in 2015. Officials acknowledged at that time that *“there is a significant upside risk if mobile networks prove to be more competitive with fixed broadband that we set out here. If that were the case, then competition would be more intense, and the case for continued regulation weaker.”*⁵⁷ That risk has materialised, which highlights the importance of the deregulation review process as part of the fibre regulatory framework.

Conclusion

- 8.32 There is therefore ample evidence of the competitive constraint currently imposed on fibre services by alternative technologies. One NZ acknowledges that FWA is not a separate market but instead forms part of a broader broadband market,⁵⁸ that ⁵⁹ *“2degrees, Spark and One NZ ... provide FWA services in a highly competitive broadband market”*, and that *“the price of FWA will be constrained by the price at which consumers can obtain alternative types of broadband, e.g., fibre.”*⁶⁰
- 8.33 We submit therefore that there can be no principled basis for the Commission to determine there are no reasonable grounds to undertake a deregulation review in respect to all of Enable’s and Tuatahi’s fibre services.

⁵² 2015 Review Document [39]

⁵³ <https://www.spark.co.nz/help/other/terms/personal-terms/everyday-wireless-broadband-terms/>

⁵⁴ Spark’s Endless Monthly Mobile Plan provides unlimited data (subject to fair use policy), unlimited NZ/Aus SMS, unlimited minutes to NZ/Aus mobiles and landlines, free Spotify Premium and the ability to hotspot the unlimited data. <https://www.spark.co.nz/online/mobile-plans>

⁵⁵ <https://www.broadbandcompare.co.nz/b/spark>

⁵⁶ UBS NZ Telecommunications APAC Focus: *What if NZ broadband market follows US trends?* 18 May 2023

⁵⁷ 2015 Review Document [39]

⁵⁸ One NZ Cross-Submission [4.1]

⁵⁹ One NZ Cross-Submission [4.2]

⁶⁰ One NZ Cross-Submission [4.2]

9. Increase in competition to FFLAS

9.1 Commercially sensitive data on the impact of competition on the Tuatahi and Enable businesses are set out in Part 2 and Part 3 of this submission. In this section we summarise the impact of competition on the services in each of the Commission's service categories.

Voice services

9.2 As the Commission's annual monitoring reports disclose, voice services over fixed-line infrastructure have been declining steadily for several years as more and more households rely on mobile networks or internet apps for voice calls rather than a home phone.

9.3 While voice technology is available on the fibre network, the demand for voice services has been miniscule, accounting for 0.1% of revenue for both Enable and Tuatahi in 2023.

Bitstream PON services up to and including 300Mbps

9.4 As discussed above, Tuatahi and Enable upgraded the 30/10 broadband plan to 50/20 and the 100/20 plan to 300/100 for no additional cost in December 2021 in response to FWA competition to encourage retailers to transition their customers to faster speeds plan for no additional cost.

9.5 The majority of Tuatahi and Enable fibre end-users are currently on the 300/100 plan. 5G FWA is a direct competitor in relation to this end-user group, claiming download speeds in excess of 300Mbps.⁶¹ In response to FWA retail price competition, Tuatahi and Enable released a 50/10 "fibre starter" service in September 2023 at a wholesale price of \$38 and a condition the retail price could not exceed \$60 to provide a fibre service at a retail price point equivalent to the FWA price.

Bitstream PON services from 301 Mbps to 1Gbps

9.6 While bitstream PON services with download speeds above 300Mbps to 1Gbps (the majority of end-users in this segment are on the 1Gbps plan) face less direct competition from 5G wireless services, they are still subject to significant constraint from this technology because end-users are not prepared to pay a significant premium for higher download speeds.

9.7 This was observed by the Commission's 2012 study of demand for high-speed broadband, for which Roy Morgan was engaged to survey consumers' willingness to pay for higher broadband speed⁶²:

The survey found that while 4% of consumers said that they were willing to pay more than \$20 extra per month, 37% said that they were willing to pay between \$5 and \$10 extra per month. A further 40% of consumers (640,000 households) said that they were willing to pay up to \$5 extra per month.

9.8 This characteristic of telecommunications markets continues today. As noted by technology commentator Peter Griffin:⁶³

"5G was touted back in 2019 as the next generation of mobile networks that would transform both consumer and industrial applications running over mobile networks. We were expected to happily pay a premium for 5G, receiving lightning-fast connections in return, while telcos would step up the value chain to offer high-capacity, low-latency services in everything from factories to stadiums. We got the first iteration of 5G, at least in parts of the country, but it's been greeted with a collective shrug of the shoulders by consumers and businesses alike, who prioritise better coverage over faster data speeds."

⁶¹ One Fast without the fuss: Vodafone NZ launches 5G Broadband for easy and reliable internet in homes and businesses (22 February 2021) <https://media.ome.nz/5gbroadband>

⁶² NZCC High speed broadband services demand side study Final Report 29 June 2012 [149]

⁶³ Peter Griffin 5G A technology solution still in search of a problem Business Desk 1 February 2024

- 9.9 Griffin notes that “the only real area of expansion of late has been in fixed wireless broadband services, which the mobile operators favour as it allows them to avoid paying wholesale network access costs to Chorus and other fibre optic network operators”.
- 9.10 Because of the reluctance of end-users to pay a significant premium for faster broadband speeds, the price of higher-speed broadband services is constrained by the market price of lower speed services. As a consequence of the reduction in price of fibre broadband services in response to FWA competition discussed above, there is no significant price premium for faster broadband speeds; as the table at [9.14] shows, Tuatahi’s wholesale price of the 1Gbps service is \$10.38 more than the wholesale price for the 300Mbps service; in Enable’s case the price premium is \$8.82.
- 9.11 There is no ability to increase the current wholesale price of these services greater than CPI (and even that is difficult) because of the risk of churn to alternative technologies.

Bitstream PON services above 1Gbps

- 9.12 The pricing relativity between speed tiers discussed above also applies to the fastest speed services above 1Gbps.
- 9.13 For example, Tuatahi released its Hyperfibre suite of products in 2020. The building block price for each Hyperfibre product using the UFB price caps in the CIP contracts (which were unilaterally extended a further 2 years to 31 December 2021 to allow the Commission to develop the FFLAS input methodologies) was \$852; however, Tuatahi had to price the 2Gbps service at \$75 to offer a compelling price point to fibre retailers and ensure relativity with the wholesale price of the 1Gbps service.
- 9.14 The relativity in price across speed tiers is anchored by the entry level 50/10 service which is priced to match the retail price of FWA as demonstrated in Tuatahi’s and Enable’s current pricing:

| | Bitstream 2 Ultra 50/10 2.5/2.5 | Bitstream 2 Ultra 300/100 2.5/2.5 | Bitstream 2 Ultra 1,000/10 2.5/2.5 | Hyperfibre Home 2000/2000 |
|----------------|--|--|---|--------------------------------------|
| Tuatahi | 38.00 | 53.02 | 63.40 | 88.61 |
| Enable | 38.00 | 53.59 | 62.41 | 81.81 |

- 9.15 Uptake of the 2Gbps service for Enable and Tuatahi is discussed in Parts 2 and 3 of this submission.

Unbundled PON services

- 9.16 Tuatahi and Enable have offered unbundled PON services since 1 January 2020 as required by the respective undertakings given by them in 2011 under Part 4AA of the Act, but no RSP has taken that service because of changes in the competitive landscape.
- 9.17 The three MNOs have preferred to invest in their own competing fixed wireless networks, while the smaller RSPs who did not have the scale required for unbundling advocated for the reduction in the wholesale price of the 1G PON service as an alternative to unbundling.
- 9.18 There can therefore be no basis for continued regulation of unbundled PON services under Part 6; regulation under Part 4AA of the Act will of course continue to apply.

Point-to-point services

- 9.19 The Commission includes in this service category Bitstream 4, HSNS, BFAS and DFAS. HSNS and BFAS are Chorus specific products which are not supplied by Tuatahi or Enable.

- 9.20 Bitstream 4 and DFAS are extremely competitive. Chorus is the major provider of these services, building on its pre-UFB fibre network but there are in addition an increasing number of alternative dark fibre suppliers.

Business fibre

- 9.21 The major users of point-to-point services, businesses and large enterprises, are typically located in CBD areas, where Chorus has an extensive fibre network and is the dominant service provide on long-term historic supply terms.

Greenfield developments.

- 9.22 While Chorus is the major competitor for installing fibre to new developments, several operators now offer embedded networks: the supplier will build the fibre network inside the boundary and take a single high bandwidth business service from one of the UFB providers and then distribute this to each premise within the development. Examples of these operators include Tenco, Infrastructure Solutions, Lit networks (owned by an ISP Fastcom), Vodafone Infrastructure partners and Frednet/Multimedia.

Transport services

- 9.23 Non-building Access Points (NBAPs) are fibre connections to non-building locations such as wifi hot spots, traffic lights and cellular towers. Chorus is the major provider of these services in the Enable and Tuatahi regions.

- 9.24 In relation to fibre to cellular towers, in addition to Chorus the MNOs provide backhaul services to some of their own towers, as well as in some cases providing backhaul for other MNOs.

Co-location and interconnected services

- 9.25 Tuatahi does not have its own COs, but instead houses its equipment in 600mm x 600mm bays in Chorus exchanges in Hawera, Wanganui, New Plymouth, Tauranga West, Tauranga East, and Hamilton East and a Spark exchange in Hamilton West. While Tuatahi has limited space available in some of these exchanges to sublet to other RSPs for co-location purposes, no RSPs currently collocate in Tuatahi's space because they can obtain co-location services directly from Chorus (or Spark) in those exchanges (and use a wholesale tie cable service from Tuatahi to allow that RSP to connect to Tuatahi's network within that exchange).

- 9.26 Enable does have its own COs and offers colocation services from these. It faces competition from Chorus, who have exchanges in Avonhead and Linwood, as well as the major datacentres, such as the Spark Datacentre at the Airport, the Datacom Datacentre in Gloucester Street and other smaller players.

Connection services

- 9.27 Neither Enable nor Tuatahi offer connection services. Both outsource this service to independent third-party service providers. Neither charge RSPs a fee for connecting residential customers because this would make fibre less competitive compared to FWA where no connection fee is charged.

- 9.28 In contrast, electricity lines companies, which do not face competition from alternative technologies, recover the connection cost from the consumer. For example, the cost to connect a dwelling to the Waipa Networks electricity lines network is currently ~\$2,372.⁶⁴

⁶⁴ <https://waipanetworks.co.nz/get-connected/electricity/>