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Determining specified fibre areas

Process and issues paper

Date: 26 November 2018

Confidential material in this report has been removed. Its location in the document is denoted by [].

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List of defined terms

Copper services	Means copper fixed line access services as defined under s 5 of the Telecommunications Act 2001
CWC	Copper withdrawal code
GIS	Geographic Information System
LFC	Local Fibre Company
LINZ	Land Information New Zealand
MBIE	Ministry of Business Innovation and Employment
RSP	Retail Service Provider
SFA	Specified Fibre Area
STD	Standard Terms Determination
TSO	Telecommunications Service Obligation
UBA	Unbundled Bitstream Access is a DSL-enabled service that enables access to, and interconnections with, part of Chorus' fixed Public Data Network. It provides retail service providers with a managed bitstream service from an exchange to and end-user, so that companies do not need to manage their own network equipment.
UCLF	Unbundled Copper Low Frequency
UFB	The New Zealand government's Ultra-Fast Broadband initiative
WSP	Wholesale Service Provider

Introduction

Purpose and structure of this paper

- The Telecommunications (New Regulatory Framework) Amendment Act 2018 (Amendment Act) came into force on 13 November 2018. It amends the Telecommunications Act 2001 (Act).
- 2. The Act requires us to carry out an assessment to determine the geographic areas in which specified fibre services are available to end-users. These geographic areas will be known as specified fibre areas (**SFAs**).
- 3. The purpose of this process and issues paper is to outline and consult on our proposed approach to our assessment of SFAs:
 - 3.1 Chapter 1 provides a brief background and context to SFAs. It also outlines our process and thinking to date (including collecting information under our section 9A study of fibre services);
 - 3.2 Chapter 2 provides the legal framework for SFAs;
 - 3.3 Chapter 3 outlines our proposed approach for assessing and declaring SFAs; and
 - 3.4 Chapter 4 provides a summary of key questions and outlines the next steps.
- 4. The assessment and notification of SFAs is an essential prerequisite to enabling Chorus Limited (Chorus) to withdraw supply of copper fixed line access services (copper services)¹ to end-users within those SFAs. It is, however, not the only perquisite. Before Chorus can withdraw supply of a copper service it must also comply with the consumer protection requirements set out in a copper withdrawal code (CWC). The CWC is being developed by the Commission under a separate process from this SFA process.
- 5. This paper does not cover the content of the CWC, regulation of fibre fixed line access services or any other new provisions under the Act. Issues arising from these provisions will be dealt with by separate processes.

Copper fixed line access services are Chorus Limited's unbundled bitstream access service and Chorus Limited's unbundled copper low frequency service.

Our process for determining specified fibre areas

6. Our timeline for developing a process for the assessment of SFAs is outlined in Table 1 below.

Table 1: Indicative timeline for SFAs

Description	Indicative timeframe
Publish process and issues paper for SFAs	23 November 2018
Submissions due on process and issues paper	8 February 2019
Technical industry workshop	Early March 2019
Final decision for SFA process	May 2019
Initial assessment	By December 2019
Annual (and supplementary) assessments	2020 onwards

- 7. We have published this process and issues paper to outline, consult, and seek feedback on our proposed approach to the assessment of SFAs. Submissions on this paper will be due on 8 February 2019.
- 8. Following submissions, and depending on the nature of submitters' views, we intend to hold a technical workshop in early March 2019 to discuss the practicalities of implementing our proposed approach. Further information about this workshop will be circulated to interested parties following submissions. Please also indicate in your submission if you are interested in attending this workshop.
- 9. We intend to publish a final decision paper on our SFA process in May 2019. This paper will have regard to submitters' comments, and any significant matters raised and discussed at the technical workshop. The paper will also detail our final process for determining SFAs and will close off our consultation on the SFA process.
- 10. When our process is confirmed, we intend to complete our initial assessment of SFAs by December 2019. This will allow us sufficient time to ensure our approach to determining SFAs, and any testing required, will be completed when we declare our initial assessment of SFAs on our website.
- 11. We will set the effective date for the first SFAs determined in our initial assessment as 1 January 2020, in accordance with the Act.²
- 12. Our proposed assessment process is outlined in Chapter 3.

² Telecommunications Act 2001, s 69AB(3).

Submissions

- 13. We are interested in your views in response to the questions and issues raised throughout this paper. A summary of key questions is included in Table 2 on page 25.
- 14. Please send your submission to us by 5pm on 8 February 2019, and address your submission to Sam Norman, c/o regulation.branch@comcom.govt.nz. Your submission should be provided as an electronic copy in an accessible form.³
- 15. We anticipate that there may be important information of relevance to the assessment of SFAs that may be commercially sensitive. If you wish to provide commercially sensitive information in your submission we request that you provide, as necessary, confidential and public versions of your submission.
- 16. When including commercially sensitive information in your submission, we offer the following guidance:
 - 16.1 Please provide a clearly labelled "confidential version" and "public version". This is because we intend to publish all public versions on our website.
 - 16.2 The responsibility for ensuring that confidential information is not included in a public version of a submission rests entirely with the party making the submission.
- 17. If the Commission considers that disclosure of information that has been provided in the confidential version may be necessary for the public interest, we will consult with the party that provided the information before any such disclosure is made.

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Electronic copies of submissions should be 'unlocked' and have text that can be easily transferred.

Chapter 1: Context for assessment of specified fibre areas

- 18. This chapter provides an overview of the background to SFAs and the development of our process for assessing SFAs.
- 19. SFAs will be geographic areas in which specified fibre services are available to endusers. These areas will largely be derived from the fibre access networks being rolled out under the Ultra-fast Broadband (**UFB**) initiative.

Background to specified fibre areas

- 20. The copper access network, owned and managed by Chorus, is currently regulated under Schedule 1 of the Act.
- 21. Increasingly the copper access network is being overlaid by fibre access networks as part of the UFB initiative launched in 2009. Chorus and the other local fibre companies (LFCs) are building these fibre access networks. The other LFCs are Enable Networks Limited (Enable), Northpower Fibre Limited and Northpower LFC2 (Northpower) and Ultrafast Fibre Limited (Ultrafast).⁴
- 22. The deployment of fibre will see migration of customers on copper services to higher speed fibre. This in turn means that regulation of copper access services in areas where there is fibre may no longer be efficient.
- 23. Neither Chorus nor the other LFCs provide telecommunications services directly to end-users. Instead, they provide wholesale services to both retail service providers (RSPs) and other wholesale service providers (WSPs) of telecommunication services. Other entities (e.g. Unison), which are not part of the UFB initiative also operate fibre access networks.
- 24. The Amendment Act followed the statutory review required under s157AA of the Act. This review considered developments in market structure and technology, and competitive conditions in the telecommunications industry at the time of the review (including the impact of fibre, copper, wireless, and other telecommunications network investment).
- 25. The review was required to consider whether the existing regulatory framework was still the most effective to achieve specified outcomes, or if an alternative framework would better achieve the outcomes.⁵
- 26. Details about this review can be found on the Ministry for Business, Innovation and Employment's (**MBIE**) website.⁶

The Act's definition of 'LFC' includes Chorus. However, the term 'LFC' is typically used to refer only to the other three LFCs (i.e. Enable, Northpower and Ultrafast). In this paper, we adopt the definition in the Act, which includes Chorus. When we refer to the non-Chorus LFCs, we use the term 'other LFCs'.

The outcomes include: promoting competition for the long-term benefit of end-users, promoting the legitimate commercial interests of access providers and access seekers, encouraging efficient investment for the long-term benefit of end-users; and supporting innovation in telecommunications markets, or deregulation where sufficient competition exists.

- 27. The Amendment Act refines the regulation of copper services from 2020, permitting Chorus to withdraw copper services provided certain prerequisites, including consumer protection measures required by the CWC, are met.
- 28. The declaration of an area as an SFA is an essential prerequisite for the process of withdrawing copper services from an area, but does not necessarily mean copper services will be withdrawn. Chorus, as the network operator, ultimately makes the final decision on the withdrawal of copper services and can then only do so if the requirements of the CWC are met.
- 29. Importantly, in areas which are not SFAs Chorus will be required to continue to supply copper services, capped at regulated 2019 prices, with annual inflation adjustments. Chorus' telecommunications service obligations (**TSO**) will also be retained in those areas.
- 30. To the extent that Chorus chooses to continue to supply copper services in relation to an end-user in a SFA, those services similarly continue to be subject to price regulation under Schedule 1 of the Act, including the unbundled bitstream access (UBA) and unbundled copper low frequency (UCLF) standard terms determinations (STD). Although those services continue to be subject to STDs, we may not review or reconsider those STDs until we have completed an investigation under either s 69AH(1)(a) of the Act or Schedule 3 of the Act. 10
- 31. The Amendment Act also introduces other responsibilities for the Commission including development of the CWC, a new regulatory regime for fibre fixed line access services and new retail service quality monitoring obligations. These new responsibilities are not covered in this paper and we will be consulting on those matters separately.

Useful information to inform our assessment of SFAs

The current information disclosure regime for fibre services

- 32. We first introduced an information disclosure regime for fibre following the 2011 amendments to the Act. These provisions require the companies deploying UFB to provide us with information about their fibre networks.
- 33. The purpose of the first information disclosure regime for fibre was described in s 156AT of the Act:

MBIE, "Final Decisions (June 2017)" (21 September 2017) http://www.mbie.govt.nz/info-services/sectors-industries/technology-communications/communications/regulating-the-telecommunications-sector/review-of-the-telecommunications-act-2001/final-decisions-june-2017.

See Telecommunications Act 2001, s 69AG(5)(a). Under s 69AG(6) of the Telecommunications Act 2001, the prices that apply to Chorus's UBA and UCLF are the 'year 5 prices' specified in the STD, where those prices increase or decrease (as appropriate) by an annual consumer price index adjustment on 16 December in each year from 16 December 2020.

Telecommunications Act 2001, s 30R.

⁹ Telecommunications Act 2001, s 59.

Telecommunications Act 2001, s 69AG(5)(b) and s 69AG(8).

"The purpose ... is to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services in New Zealand by requiring LFCs who have given undertakings in relation to certain services to provide reliable and timely information to the Commission to enable it to record over time the costs and characteristics of LFC fibre networks to inform the Commission's statutory processes and determinations."

- 34. We now hold six years of data dating from the launch of the UFB initiative.
- 35. Under the information disclosure regime, we have been provided with geographic information systems (**GIS**) information about Chorus' and the other LFCs' fibre networks. ¹¹ While we consider this data will be helpful in the design of our process for the assessment of SFAs, our current view is that specific GIS information will be required for this process (as outlined at paragraph 66 below).

Section 9A study of fibre services

- 36. In April 2018 we commenced a study of fibre services under section 9A of the Act.
- 37. The purpose of the study is to improve our understanding of the nature of fibre networks and operations in New Zealand, allowing us to prepare for the regulation of fibre networks in the future.¹²
- 38. The study enabled us to collect information from Chorus and the other LFCs on aspects of their GIS systems and processes specific to the assessment of SFAs, such as processes for recording fibre connections. We have used this information to inform our views in this paper.
- 39. We intend to publish a summary of our main findings at the conclusion of the study by the end of 2018.

¹¹ Commerce Commission (2018) "Chorus information disclosure determination 2018" NZCC 9 at paragraph 2.2(1)(d), available at https://comcom.govt.nz/regulated-industries/telecommunications/regulated-services/fibre-regulation/ultrafast-broadband-information-disclosure

Commerce Commission "Section 9A Fibre Services Study in New Zealand – Terms of reference" (27 April 2018), https://comcom.govt.nz/regulated-industries/telecommunications/regulated-services/fibre-regulation/fibre-services-study.

Chapter 2: Legal framework for specified fibre areas

- 40. This chapter outlines the provisions in the Act relevant to our assessments of SFAs, and our interpretation of these provisions. We have included our obligations and associated definitions under the Act in Appendix A.
- 41. In this chapter we discuss:
 - 41.1 Our SFA obligations;
 - 41.2 What is a specified fibre service;
 - 41.3 Who are end-users;
 - 41.4 Meaning of available;
 - 41.5 What are the requirements for a SFA;
 - 41.6 Effect of SFAs; and
 - 41.7 Our assessment design.

Our SFA obligations

- 42. Under Part 2AA of the Act, we are required to:
 - 42.1 before 1 January 2020 carry out an initial assessment to determine the geographic areas in which a specified fibre service is available to end-users (initial assessment);¹³ and
 - 42.2 at least annually after our initial assessment, carry out further assessments to determine the geographic areas in which a specified fibre service is available to end-users (annual assessments). 14,15
- 43. If we determine that a specified fibre service is available in a geographic area to endusers, we must, by public notice, declare that area to be a 'specified fibre area'.

 This notice must specify the date on and after which the area is to be a SFA (effective date).

 This notice must specify the date on and after which the area is to be a SFA (effective date).
- 44. Our notice may describe an area by any means. 18

¹³ Telecommunications Act 2001, s 69AB(1).

Telecommunications Act 2001, s 69AB(1).

We may decide to also make supplementary assessments in instances where fibre has been deployed in response to an urgent unplanned event to replace copper, as may occur after a natural disaster eg, flooding or earthquake.

Telecommunications Act 2001, s 69AB(2).

Telecommunications Act 2001, s 69AB(3). Section 69AB(3) of the Act also specifies that the date on and after which the area is to be a specified fibre area must not be before 1 January 2020.

Telecommunications Act 2001, s 69AB(4). The Act has indicated (without limitation) that a notice may be described through the 'use of a map' or 'a narrative description of the area'.

- 45. Further, we must maintain a record of all 'specified fibre areas' which must be available, at all reasonable times, for inspection on our website. 19
- 46. Our view is that we must carry out at least one assessment of each regulated fibre service provider's fibre network within a year of our most recently completed assessment.

Q1	We welcome your views on the appropriateness of the interpretation of our
	obligations.

What is a 'specified fibre service'?

- 47. A 'specified fibre service' is a telecommunications service that enables access to, and interconnection with, a regulated fibre service provider's fibre network.²⁰
- 48. A 'specified fibre service' includes a telecommunications service provided by a regulated fibre service provider over fibre media to itself or to a related party as the ultimate recipient of that service.²¹
- 49. A 'specified fibre service' does not include a telecommunications service provided in any place over a copper line, other than where the copper line is within an end-users premises or building.²²
- 50. A 'specified fibre service' does not include a telecommunications service used exclusively in connection with a telecommunications service provided in any place over a copper line.²³
- 51. We consider that the following concepts are crucial to determining whether a telecommunications service is a 'specified fibre service':
 - 51.1 a 'regulated fibre service provider'.
 - 51.2 a 'fibre network'; and
 - 51.3 a 'fibre handover point'.
- 52. We consider that the existence of a 'specified fibre service' is a factual question depending on the existence of a 'regulated fibre service provider', a 'fibre network' and a 'fibre handover point'. We explain each of these concepts in paragraphs 53-57.

Regulated fibre service provider

¹⁹ Telecommunications Act 2001, s 69AB(5).

Telecommunications Act 2001, s 69AB(6)(a) and paragraph (a) of the definition of 'fibre fixed line access service' in section 5.

Telecommunications Act 2001, s 69AB(6)(b).

Telecommunications Act 2001, paragraph (b)(ii) of the definition of 'fibre fixed line access service' in section 5.

Telecommunications Act 2001, paragraph (b)(iii) of the definition of 'fibre fixed line access service' in section 5.

53. 'Specified fibre services' only relate to telecommunication services provided by a person prescribed by the Governor-General as being subject to regulation under s 226 of the Act.²⁴ We expect that Chorus and the other LFCs — Enable, Northpower and Ultrafast will be prescribed as 'regulated fibre service providers' under the Act.²⁵ In carrying out our assessment of SFAs, we will only assess telecommunications services provided by regulated service providers.

Fibre network

54. To be a 'specified fibre service', a telecommunications service will need a network structure which allows the delivery of this telecommunications service over fibre media that connects the 'user-network-interface' of an end-user's premises, building, or other access point to a regulated fibre service provider's fibre handover point.²⁶

Fibre handover point

- 55. A 'specified fibre service' will need an external 'network-to-network' interface located at the specified point of interconnection for the relevant end-user's premises, building, or other access point that enables access to and interconnection with that regulated fibre service provider's network structure ('fibre network').²⁷
- 56. We understand from the industry that 'a specified fibre service' will exist when:
 - 56.1 the communal fibre network has been built to the regulated fibre service provider's specifications, and has been recorded as operational in the regulated fibre service provider's management and operational systems;
 - an end-user's premises is deemed 'passed' by the communal network when its associated address point, as defined in the latest address dataset, has:
 - 56.2.1 already been connected to the communal network (an active or inactive intact connection); or
 - 56.2.2 can be connected with minimal civil construction at the property boundary; or
 - 56.2.3 in the case of multi-dwelling units, to a defined delivery point within the property's boundary; and
 - the address point is shown as 'Active' in the regulated fibre service providers systems such that a RSP or WSP can place a new connection or service activation request with the expectation that service will be provided within an accepted industry time frame.

Telecommunications Act 2001, s 226.

Telecommunications (New Regulatory Framework) Amendment Bill (8 August 2017), Explanatory note.

Telecommunications Act 2001, s 5 definition of 'fibre network'.

Telecommunications Act 2001, s 5 definition of 'fibre handover point'.

57. In assessing whether a telecommunications service is a 'specified fibre service' we consider that it is appropriate to generally focus on whether there is a 'regulated fibre service provider', a 'fibre network' and a 'fibre handover point'.

Examples of 'specified fibre services'

58. Figure 1 below shows what we consider are the factual situations where a telecommunications service will be a 'specified fibre service'.

Regulated fibre service provider's fibre network -Specified fibre service -Communal infrastructure ONT RGW End User's **Residential Premises** NNI • Powered Fibre Lead-in End User's Building Node Patch Cable Fibre Lead-in Central Office Fibre Flexibility Point Non-building Mobile Specified Point of Interconnection Access Point Cellular (NBAP) KEY **Property Boundary** User-Network-Interface (UNI) Fibre Handover Point NNI Network-Network-Interface (NNI) Termination Point OFDF Optical Fibre Distribution Frame **Fibre Access Point** ONT Optical Network Terminal RGW RSP's Residential Gateway

Figure 1: Specified fibre services network diagram

Q2	We welcome your views on the appropriateness of our interpretation of a
	'specified fibre service' under s 69AB(6) of the Act.
Q3	We welcome your views on whether or not our diagram is an accurate
	representation of where a telecommunications service is a 'specified fibre
	service'.

Who are end-users?

- 59. 'End-user' is defined in relation to a 'telecommunications service' as a 'person who is the ultimate recipient of that service or of another service whose provision is dependent on that service'.²⁸
- 60. In light of the purpose of Part 2AA of the Act to 'deregulate copper fixed line access services in areas where fibre fixed line access services are available', we consider that 'end-user' in the 'specified fibre service' context means all potential recipients of a specified fibre service and not just those who are already connected to fibre.
- 61. We consider that an end-users' location in the context of a 'specified fibre service' will only be a 'premise', 'building', or 'other access point' connected to a fibre network.
- 62. We outline our initial views of the data that will define the end-user locations at paragraph 77 below.

Q4	We welcome your views on the appropriateness and practicality of our
	interpretation of the term 'end-user'.

Meaning of 'available'

- 63. As part of our initial assessment and annual assessments, we must determine the geographic areas in which a 'specified fibre service' is 'available' to end-users.²⁹
- 64. We consider that a 'specified fibre service' will be available:
 - 64.1 where the key components of that service exist as outlined in paragraphs 51-58 above (including a 'regulated fibre service provider', a 'fibre network' and a 'fibre handover point'); and
 - an end-user is able to connect to a specified fibre service in a particular geographic area, such as an end-user's address point.
- 65. As the purpose of Part 2AA of the Act to 'deregulate copper fixed line access services in areas where fibre fixed line access services are available', 30 we consider that this

Telecommunications Act 2001, s 5.

Telecommunications Act 2001, s 69AB(1).

- definition is appropriate because it will only allow Chorus to withdraw copper services when end-users are able to connect to fibre fixed line access services.
- 66. In assessing whether a service is 'available', we consider that we will need sufficient information to determine:
 - where 'specified fibre services' are located in NZ, including the location of regulated fibre service providers' fibre networks and fibre handover points (e.g. through coordinates or GIS information). We already have some of this information collected under our existing fibre information disclosure;
 - where end-users' premises, buildings and other access points are located in NZ. For this we intend to use Land Information New Zealand (LINZ) data, defining address points and property boundaries within NZ, to determine the locations of all premises and buildings within NZ. At this stage, we are not certain how to determine where end-users' other access points are located in NZ; and
 - information on which end-users in NZ are able to connect to those 'specified fibre services' at the time of the assessment. Our view is that the specific detail of when a specified fibre service is available will be confirmed following the technical workshop.

Q5	We welcome your views on the criteria for fibre being 'available' to end-
	users.
Q6	We invite your views on how we can determine the locations of end-users' other access points' within NZ.
Q7	We invite views on whether we need precise information on where 'specified fibre services' are located in NZ, including the location of regulated fibre service providers' fibre networks and fibre handover points (e.g. through coordinates or GIS information).

What are the requirements for a specified fibre area?

- 67. The SFA will be the aggregate of all the end-users' locations where 'specified fibre services' are available. Our view is that the minimum size of an SFA needs to be down to the level of granularity that interested parties can identify a particular end-user location (for example an address point and property boundary).
- 68. It is important to be able to identify individual end-user locations so that this information can be used to determine if Chorus is meeting the conditions of the CWC.³¹ le, Chorus will not be able to withdraw a copper service from an area unless all end-users in that area can access a fibre service, and can have a connection to the

Telecommunications Act, s 69AA(a).

Under s 69AC of the Act, one of the preconditions before Chorus can stop supplying copper services is that it must have complied with the requirements of an approved CWC in relation to the supply of that service.

- fibre service installed within a reasonable time frame and at no cost to the enduser.³²
- 69. Our view is that our assessments will be conducted at a point in time. If a property boundary is declared to be a SFA, and is then subsequently subdivided, the new property boundaries will be assessed as part of the next SFA assessment.
- 70. We recognise it may be practical in assess the copper network footprint for Chorus to be able to make the relevant business decision about copper, subject to the CWC. However, although this is where SFAs have a practical effect, our assessments are not limited to the copper network footprint. We consider that it is most efficient to only assess the fibre networks of regulated fibre service providers.
- 71. We will also take into account fibre networks where there is no existing copper network. For areas such as greenfield subdivisions which have been connected to fibre, we will declare these areas as SFAs so long as specified fibre services are available. In practice, although Chorus will not need these areas to be declared as SFAs (as there was never any copper services in those areas to withdraw), they will still meet the criteria of an SFA.

Effect of Specified Fibre Areas

- 72. The Act specifies the effects of declaring an area as a 'SFA':
 - 72.1 once we have declared that an end-user's building is located in a 'SFA', Chorus may stop supplying its UBA and UCLF services if:
 - 72.1.1 it has complied with the requirements of an approved CWC in relation to when Chorus may stop supplying UBA and UCLF³³; or
 - 72.1.2 the end-user chooses to have the service disconnected (other than a temporary disconnection).³⁴
 - 72.2 the TSO Deed for Local Residential Telephone Service ceases to apply in relation to an area that becomes a SFA (except to the extent that it relates to 111 call services);³⁵ and
 - 72.3 the TSO Deed for TSO Network Service ceases to apply in relation to an area that becomes a SFA.³⁶
- 73. To the extent that Chorus chooses to continue to supply UBA and UCLF to an enduser in a SFA, those services continue to be subject to price regulation under Schedule 1 of the Act, including the UBA and UCLF STDs.³⁷ Although those services

Telecommunications Act 2001, clause 1(3) of Schedule 2A.

The copper withdrawal code requirements are specified in Telecommunications Act 2001, Schedule 2A.

Telecommunications Act 2001, s 69AC(2).

Telecommunications Act 2001, s 69AE(a).

Telecommunications Act 2001, s 69AE(b)

See Telecommunications Act 2001, s 69AG(5)(a). Under s 69AG(6) of the Telecommunications Act 2001, the prices that apply to Chorus's UBA and UCLF are the 'year 5 prices' specified in the STD, where those

continue to be subject to STDs, we may not review³⁸ or reconsider³⁹ those STDs until we have completed an investigation under either:

- 73.1 s 69AH(1)(a) of the Act by 31 December 2025; 40 or
- 73.2 Schedule 3 of the Act at any time, where that investigation starts on or after 1 January 2020.
- 74. There is no provision in the Act that allows for modification once an area (defined by address points within a property boundary) has been declared to be a SFA. Ie, there is no process for a SFA to be reassessed as no longer a SFA.

Assessment design

- 75. It is necessary for us to identify what data is held by stakeholders, and the quality, availability and accessibility of the data for the Commission to use to carry out our SFA assessments. We started this process of identifying data as part of our study of fibre services under section 9A of the Act.
- 76. We consider the five pieces of information essential to carry out the SFA assessment are accurate data to identify:
 - 76.1 what are specified fibre services?;
 - 76.2 where specified fibre services are located?;
 - 76.3 who are end-users of specified fibre services?;
 - 76.4 where end-users are located?; and
 - 76.5 which end-users are able to connect to specified fibre services?
- 77. To determine where end-users are located we will require an accurate database of end-user address points mapped to property boundaries and land parcels.⁴¹

prices increase or decrease (as appropriate) by an annual consumer price index adjustment on 16 December in each year from 16 December 2020.

Telecommunications Act 2001, s 30R.

Telecommunications Act 2001, s 59.

Telecommunications Act 2001, s 69AG(5)(b) and s 69AG(8). Under s 69AH of the Act, we are required to either:

⁽a) complete by 31 December 2025 an investigation into whether the regulation of UBA and UCLF under Schedule 1 of the Act should be added, omitted, or amended; or

⁽b) provide, within a reasonable time after 31 December 2025, written reasons why there were not reasonable grounds for starting an investigation into whether the regulation of UBA and UCLF in Schedule 1 of the Act should be added, removed or amended.

Note that some properties will contain more than one address point, and an address point may be known by more than one name or alias. Land parcels provide a definitive record whereas address points may not provide the level of certainty we require.

78. As noted above, our proposed approach is to use publically available property and address datasets, such as those held by LINZ.⁴² The use of publicly available data will allow any interested parties to interact with shape files that we produce.

Q8	We invite views on the suitability of using LINZ data to determine end-users'
	address points and property boundaries within NZ compared to other
	available data sets.

- 79. We will need to source the as-built fibre network from 'regulated fibre services providers' to determine where specified fibre services are located. We expect that Chorus and the other LFCs Enable, Northpower, and Ultrafast will be prescribed as 'regulated fibre service providers' under the Act. We also consider that we will need the regulated fibre service providers to provide us with updated information for each assessment to ensure we maintain an accurate record.
- 80. We will then need to determine where specified fibre services are available at enduser locations. 43 This determination will produce a list of properties where specified fibre services are available.

Q9	We welcome your views on the timing and frequency of assessments,
	including the review period, publication, outputs and phase-in period
	between declaring an area and the effective date.

For example see New Zealand Primary Land Parcel

Each land parcel and end-user address point will be assigned an attribute for SFA=Y/N assigned to it (ie, is this address point in or out of a SFA). The aggregate shape resulting from aggregation of all the property boundaries for address points where SFA=Y then defines the boundaries of each SFA.

Chapter 3: Proposed process for assessing and declaring SFAs

- 81. This chapter details our proposed approach to assessing SFAs which will be used for our initial and annual assessments.
- 82. The initial assessment to determine the baseline SFAs before 1 January 2020 will largely dictate the process we follow for subsequent annual SFA assessments.
- 83. We have developed the assessment process to consult on, and establish, a viable compliance regime for SFAs.

Annual assessment requirements

- 84. We will require regulated fibre service providers to provide us with the following information to be able to make our assessment:
 - 84.1 GIS shape files detailing the as-built location of communal fibre access network assets;
 - 84.2 GIS datasets detailing the LINZ property parcels and addresses points the communal fibre access networks are deemed to be passed and for which an order for provision of service can be placed, ie, the address point is 'Active' within the service provider's system.
- 85. We consider that the submissions on the specific data requirements for SFA assessments (including format, metadata etc) will inform discussion at our intended technical workshop.
 - Q10 We welcome your views on the adequacy of the data requirements for SFA assessments. If you consider additional data is required, please provide details.

Application for supplementary assessment

- 86. We understand that from time to time there may be a need for a more frequent assessment of SFAs than the annual assessment. This may be particularly relevant as the UFB initiative nears build completion in 2022.
- 87. The Act requires us to carry out assessments of SFAs at least annually. 44 We intend to conduct the annual assessment each year regardless of the timing of any supplementary assessments.
- 88. We are proposing a process for a supplementary assessment if the following criteria are met:
 - The application for assessment is not within 3 months of either the most recent annual assessment, or the next annual assessment;

-

Telecommunications Act 2001, s 69AB(1).

- 88.2 The application affects a substantial number of premises; and
- 88.3 The application to classify an area as a SFA follows the urgent deployment of local access fibre to replace copper eg, flooding or earthquake.
- 89. If all the criteria are met, Chorus and the other LFCs can apply to us for a supplementary assessment. Our proposed approach is that supplementary assessments should follow the same process as our annual assessments detailed above, including the assurance requirements outlined in paragraphs 94-96.
- 90. We consider that responses to this question will likely inform discussion at the technical workshop.

Q11	Under what circumstances could supplementary assessments be required?
Q12	What is an acceptable number of premises to justify a supplementary
	assessment? (ie, greater than x?)
Q13	Do you consider that the criteria for supplementary assessments are
	satisfactory and appropriate?

Timing

- 91. Our initial view is that the annual assessments should occur at the same time each year. Our view is that the timing of the annual assessment should be consistent between Chorus and the other LFCs so that the information is accurate for all of New Zealand as at a point in time. One annual assessment process is also easier for our own internal planning and communications to interested parties.
- 92. Our view is that a set annual assessment date is useful for regulated fibre service providers as it can be aligned to annual business planning and reporting dates to minimise compliance costs to regulated fibre service providers.
- 93. Our initial view is that there should be a phase-in period between the date that the assessment is completed, and the date when areas are declared as SFAs. The phase-in period will enable affected parties to communicate with the Commission if they consider that the assessment requires amendment or if they consider that a material error has been made.

Q14	We welcome your views on the timing of the annual assessments.
Q15	We welcome your views on the likely compliance costs (including time) for
	providing the data.

Assurance requirements

94. Our view is that, given the nature of the task, the data involved, and the effect of SFAs, we must put in place an appropriate quality assurance programme. This will include confirming the accuracy of data the regulated fibre service providers provide.

- 95. We consider that an assurance regime similar to the technical certification currently provided under out existing fibre information disclosure determinations would be sufficient.⁴⁵
- 96. We welcome feedback on whether technical, Board or Executive management certification of the accuracy of the data is appropriate.

Q16	We welcome your views on how we should ensure quality assurance of the
	data provided.

Public notice

- 97. We will make a public notice in the *Gazette* on the completion of our assessments of SFAs and the effective date for the SFAs in that assessment.
- 98. We will also notify interested parties via email, and on our website.

Q17	We welcome your views on how our public notices should declare an area to
	be a specified fibre area.

Publication

- 99. As noted above, we intend to maintain a record of all SFAs on our website, including:
- 100. For each assessment of SFAs we intend to publish:
 - 100.1 A map on our website showing aggregated end-user locations that have been declared SFAs. This can ideally have searchable address points.
 - 100.2 GIS data files available for download and interrogation by interested parties, including.
 - 100.2.1 The underlying metadata listing the end-user locations (address points), if the area is an SFA or not, the effective date, and any other relevant information eg, relevant regulated fibre service provider(s), relevant handover point, date of assessment.
 - 100.2.2 SFA shape files available for download and use with GIS software.
- 101. Each SFA area is required to include a narrative description. Our initial view is that the narrative description will be derived from names that have been allocated to UFB areas.

Our UFB information disclosure determinations are available from https://comcom.govt.nz/regulated-industries/telecommunications/regulated-services/fibre-regulation/ultrafast-broadband-information-disclosure

Q18	Are there any other relevant documents or data that we should make
	available as part of our assessment(s)?
Q19	We welcome your views on the adoption of UFB area names as a narrative
	description of SFAs and of alternative naming conventions that interested
	parties, including end-users, can identify with.

Data confidentiality

- 102. We intend to only publish the aggregated GIS shape files resulting from our assessments.
- 103. We will not publish low level GIS information from the shape files that Chorus and the other LFCs provide to us. This is our approach to the existing fibre information disclosure regime.
- 104. Our view is that withholding the company-level GIS information is necessary to protect the information as:
 - 104.1 providing the information would likely prejudice the supply of similar information in the future and it is in the public interest that such information should continue to be supplied; and
 - 104.2 withholding the information is necessary to prevent the use of the information for improper gain or improper advantage.

Q20	Are there any other aspects of data confidentiality that we need to
	consider?

Chapter 4: Key questions and next steps for specified fibre areas

105. This chapter presents an outline of our next steps following this consultation, and a summary of the key questions we are seeking feedback on for the SFA process.

Next steps

- 106. Once we receive submissions we will inform interested parties of our intention to hold a technical workshop in early March 2019. The nature of submissions on this paper will inform the likely agenda for the technical workshop. We request that interested parties indicate in submissions the key issues that should be discussed at the technical workshop. Please also indicate if you are interested in attending the workshop.
- 107. We anticipate publishing our final decision on SFA process, responding to submissions and noting developments from the technical workshop, by May 2019.
- 108. As mentioned above, our intention is to complete the initial assessment by December 2019.

Summary of key questions

109. Table 2 below summarises the key questions that we are seeking views on in this process and issues paper.

Table 2: Summary of key questions

welcome your views on the appropriateness of the interpretation of
obligations.
welcome your views on the appropriateness of our interpretation of a
ecified fibre service' under s 69AB(6) of the Act.
welcome your views on whether or not our diagram is an accurate
resentation of where a telecommunications service is a 'specified fibre
vice'.
welcome your views on the appropriateness and practicality of our
erpretation of the term 'end-user'.
welcome your views on the criteria for fibre being 'available' to end-
ers.
invite your views on how we can ascertain the locations of end-users'
ner access points' within NZ.
invite views on whether we need precise information on where
ecified fibre services' are located in NZ, including the location of
ulated fibre service provider's fibre networks and fibre handover points
g. through coordinates or GIS information).
invite views on the suitability of using LINZ data to determine end-
ers' address points and property boundaries within NZ compared to
er available data sets.

Q9	We welcome your views on the timing and frequency of assessments,
	including the review period, publication, outputs and phase-in period
	between declaring an area and the effective date.
Q10	We welcome your views on the adequacy of the data requirements for SFA
	assessments. If you consider additional data is required, please provide
	details.
Q11	Under what circumstances could supplementary assessments be required?
Q12	What is an acceptable number of premises to justify a supplementary
	assessment? (ie, greater than x?).
Q13	Do you consider that the criteria for supplementary assessments are
	satisfactory and appropriate?
Q14	We welcome your views on the timing of the annual assessments.
Q15	We welcome your views on the likely compliance costs (including time) for
	providing the data.
Q16	We welcome your views on how we should ensure quality assurance of the
	data provided.
Q17	We welcome your views on how our public notices should declare an area
	to be a specified fibre area.
Q18	Are there any other relevant documents or data that we should make
	available as part of our assessment(s)?
Q19	We welcome your views on the adoption of UFB area names as a narrative
	description of SFAs and of alternative naming conventions that interested
	parties, including end-users, can identify with.
Q20	Are there any other aspects of data confidentiality that we need to
	consider?

Appendix A: Relevant statutory references

copper fixed line access services means the following (as they are described in subpart 1 of Part 2 of Schedule 1):

- (a) Chorus's unbundled bitstream access:
- (b) Chorus's unbundled copper low frequency service

fibre fixed line access service —

- (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)

fibre handover point means the external network-to-network interface (or equivalent facility) located at the specified point of interconnection for the relevant end-user premises or access point that enables access to, and interconnection with, a regulated fibre service provider's fibre network

fibre network means a fibre-to-the-premises access network (as defined in section 156AB) that connects the user-network interface (or equivalent facility) of an end-user premises or access point to a regulated fibre service provider's fibre handover point

regulated fibre service provider means a person who is prescribed in regulations made under section 226 as being subject to 1 or both of the following:

- (a) information disclosure regulation:
- (b) price-quality regulation

specified fibre area means an area that has been declared by the Commission, under section 69AB, to be a specified fibre area

69AA Purpose

The purpose of this Part is to—

- (a) deregulate copper fixed line access services in areas where fibre fixed line access services are available; and
- (b) provide protections for end-users of copper fixed line access services and certain other designated services in deregulated areas; and
- (c) provide for the Commission to investigate whether the regulation of copper fixed line access services and certain other designated services should be altered.

69AB Specified fibre areas

(1) The Commission must, before the implementation date 1 January 2020 and at least annually thereafter, carry out an assessment to determine the geographic areas in which fibre fixed line access services are a specified fibre service is available to endusers.

- (2) The Commission must, by public notice, declare an area to be a specified fibre area if the Commission determines in an assessment under subsection (1) that fibre fixed line access services are a specified fibre service is available to end-users in the area.
- (3) A notice under this section must specify the date on and after which the area is to be a specified fibre area, and that date must not be before 1 January 2020.
- (4) A notice under this section may describe an area by any means, including (without limitation)—
 - (a) by use of a map; and
 - (b) by a narrative description of the area.
- (5) The Commission must maintain a record of all specified fibre areas that is available, at all reasonable times, for inspection on the Commission's Internet site in an electronic form that is publicly accessible.
- (6) In this section, **specified fibre service** means either of the following:
 - (a) a fibre fixed line access service:
 - (b) a telecommunications service provided by a regulated fibre service provider (F) over fibre media where 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).