



Fibre EOI and non-discrimination

Submission | Commerce Commission

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Introduction

1. Thank you for the opportunity to comment on Dr Ingo Vogelsang's expert economic advice (**the expert report**) relating to the application of equivalence and non-discrimination obligations on Chorus and Local Fibre Companies (**collectively LFCs here**).
2. Dr Vogelsang's paper makes an important contribution to understanding the key economic and policy principles that underpin Equivalence of Inputs (**EOI**) and non-discrimination obligations (together **the obligations**). Clarity about how the EOI and non-discrimination obligations will apply, together with the implementation of Part 6 pricing and quality framework, is critically important if service providers are to invest in retail services and networks.
3. Service providers must have confidence in access arrangements for them to invest in their own services. A regulatory framework that limits LFCs ability to use their control of the fibre networks to undermine competition in downstream and adjacent markets is even more important where LFCs operate and intend to further expand activities in these markets. For example, Chorus is an operator of a Crown funded Fibre Network and is increasingly expanding its activities in parts of the value chain currently served by RSPs, offering promotional discounts directly to consumers. Chorus is also trialling mobile small cell deployment with mobile operators¹ and considering how it might participate in a merged mobile business.²
4. In this submission we:
 - a. Highlight that the Fibre Deeds include broad obligations intended to promote open and transparent access to Crown funded fibre networks;
 - b. Note that the non-price aspects of the PONFAS service are - in practice - as important as price in determining whether unbundling is viable;
 - c. Address pricing issues relating to equivalence and non-discrimination.

The context for the expert report

- While the expert report usefully focuses on economic pricing principles relating to non-discrimination and equivalence, the Commission should consider providing guidance on wider open access and transparency obligations in its forthcoming consultation.
 - PONFAS design and business rules relating to unbundled services are important factors for promoting competition. The proposed PONFAS service is unnecessarily complex and has technical restrictions that make the service unworkable.
5. We appreciate that the Commission has asked Dr Vogelsang to focus on equivalence and non-discrimination as it applies to unbundled fibre services and pricing practices. These are key issues raised by LFCs' the proposed PONFAS services that must be available on an EOI basis from January 2020.
 6. However, the Fibre Deeds have wider obligations and objectives - ensuring transparency, non-discrimination, and equivalence of supply in relation to wholesale fibre services provided using the Crown funded UFB fibre networks – and non-price terms have a significant impact in practice.

¹ <https://chorus-nzx-test.demo.outwide.net/api/announcements/download/2019/3e69eea4-0e8d-4bc9-a103-777ac880ac5d/8f4f0589-a742-49dd-a53b-d42c4c8d67a9/310891.pdf>

² <http://www.sharechat.co.nz/article/9faa0645/chorus-open-minded-on-owning-mobile-network-assets.html>

Fibre Deeds have wider transparency, open access objectives

7. Fibre Deed obligations go beyond the specific PONFAS requirements to wholesale services provided using the fibre network, and general obligations relating to wholesale activities. They include broad obligations that go beyond specific service pricing, intended to ensure open access and transparent access to Crown funded UFB fibre networks. Accordingly, the Fibre Deeds are a key part of the regulatory framework.
8. Section 156AD of the Act requires Chorus and LFCs to enter undertakings that must provide for:
 - a. Unbundled layer 1 services on all parts of its fibre-to-the-premises access network on and after 1 January 2020 for UFB1 regions and 1 January 2026 for UFB2 regions;
 - b. *Non-discrimination* in the supply of wholesale telecommunications services provided using, or that provides access to unbundled elements of, an LFC fibre network;
 - c. *Equivalence* in relation to the supply of unbundled layer 1 services; and
 - d. Wider business obligations that reinforce the intention that wholesale services provided over Crown funded fibre networks would be available to access seekers on an open access basis:
 - i. The LFC to maximise the use of standard terms for the supply of services;
 - ii. Access seekers to have the same to information from the LFC; and
 - iii. Specify rules for the treatment of confidential information relating to access seekers.
9. The Fibre Deeds reflect these requirements. For example, the Chorus Fibre Deed provides that:
 - a. Chorus will not discriminate between access seekers or with itself when doing, or omitting to do anything, in respect of a wholesale fibre services provided using the fibre network;
 - b. Chorus must make *Input Services* available to access seekers on an Equivalence basis from 1 January 2020. *Input services* means DFAS, PONFAS, Co-location and any other unbundled layer 1 service required by the UFB contract³ or STD; and
 - c. Chorus must provide information relating to wholesale fibre services pricing, development, launch date, costs, coverage and capability on a non-discriminatory basis unless specifically agreed in writing by the Commission;
 - d. Chorus must produce and disclose a Reference Offer for wholesale fibre services.
10. The Commission plans to provide guidance on the Fibre Deeds and, in doing this, the Commission could also usefully provide specific guidance on:
 - a. The application more generally of Fibre Deeds to promote open access and transparency, i.e. what outcomes the Commission is expecting from equal access, reference offers and the provision of information relating to the development of new services; and

³ A range of required unbundled layer 1 services including unbundled point to multipoint fibre and element pricing that would enable access seekers to develop new capabilities is set out in Table B of the Chorus UFB contract.

- b. How the Fibre Deeds work together with Part 6 to promote the purposes of the Act.
11. There are potentially strong linkages between the Fibre Deeds and Part 6. For example, the Commission could provide more certainty that:
- a. Chorus is obliged to provide Reference Offers for all wholesale services using the fibre network, including where Layer 1 services are used by Chorus' own business unit. The Act requires undertakings that provide for LFCs to maximise the use of standard terms through template or model agreements, and for access seekers to have the same access to information from the LFC. In turn, for example, Chorus UFB agreements and fibre deed requires a reference offer for fibre services and to not discriminate between users of the network in the provision of fibre services;
 - b. Chorus is obliged to provide timely information relating to the development and provision of services that use the fibre network, including itself. Chorus is prohibited from discriminating between access seekers and itself in the provision of services or information relating to the service; and
 - c. The Part 6 allocation and transparency of costs is aligned and supporting the fibre deed and competition purposes of the Act (Part 4AA and Part 6 purposes).
12. While we have not exhaustively reconciled the Fibre Deeds with the Part 6 framework, we believe that wholesale Services transparency and Reference Offer codification of those services would – for example – facilitate the identification of Part 6 services and revenues, address RSP concerns relating to how service definitions will be set and promote the purposes of the Act.

Non-price terms are as important for promoting competition

13. The expert report highlights that equivalence of inputs is an important consideration. EOI requires that all inputs are provided to access seekers on exactly the same terms (including timeliness and quality of provisions) that an LFC offers to its own downstream business operations. As the Commission notes in its covering letter, equivalence and non-discrimination includes price along with the physical inputs.
14. We have found that in practice the design and business rules relating to the unbundled service are as important as price. Chorus and LFCs' approach to the PONFAS results in a complex and high cost to support service which, together with an expected inferior customer experience relative to that available from Chorus and LFCs, results in an unworkable service for access seekers and their customers.
15. For example, under the Chorus design and business rules:

Design approach	Impact
<p>The intact fibre is retained for the sole use of Chorus' layer 2 business</p>	<p>The intact fibre is the fibre path between the splitter and the end user equipment handover. Chorus will only provide the intact fibre to its own business.</p> <p>The fibre being made available to access seekers is not connected through to the end user network interface, i.e. it exists as discrete segments of cable. Accordingly, access seekers incur additional field services work - with associated customer disruption - to build the second fibre path.</p> <p>Only the second or subsequent fibre is available to be transferred between unbundlers. In other words, Chorus' layer 2 business does not face the same connection and transfer processes as access seekers (as it has a reserved layer 1 connection).</p>

Design approach	Impact
Access seekers cannot reuse the installed ONT	Chorus will only provide ONT access to its own business. The ONT provides layer 1 functionality, amongst other functions. The proposed construct means access seekers must enter the end user premises in order to provide an unbundled service, driving additional cost and customer disruption.
Access seeker are not permitted to remove the redundant Chorus ONT	Chorus requires that, with unbundled layer 1 services, it's layer 2 service remain in end user premises. This requirement leads to several business rules, such as this, that are discriminatory and not equivalent. With the proposed approach, an access seeker would be required to install a second ONT in the home. We don't believe a second ONT will be acceptable to end users.
Chorus will provide the splitter which must be taken with the feeder fibre.	The PONFAS service is a bundled service between the end user premises and the exchange - access seekers cannot consumer layer 1 sub-components of the network. This requirement is put into effect in practice by, for example, bundling feeder and splitter components. The requirement limits how unbundlers can use the unbundled network to develop new innovative services.
Service not available to wireless cell sites	Service is not available to access seeker non-building access points (NBAPs).
Connections lead times are long	The service construct results in long connection timeframes. The distribution best effort mean time is 30 days, with the prerequisite deployment of the feeder splitter adding an expected 65 days. The lead times for initial deployments are unlikely to be acceptable to customers.

16. Chorus' proposed approach reserves the existing layer 1 service for Chorus' sole use and limits downstream services constructed using unbundled fibre to GPON services like that offered by Chorus' downstream business. However, in doing this, it increases the complexity and cost of the unbundled service and limits access seeker innovation. We do not believe that the Chorus and LFC proposed layer 1 services provide equivalent inputs or terms of access to their respective downstream businesses.

Equivalence

- In the New Zealand context non-discrimination applies to all wholesale fibre services, with the more stringent equivalence application applying to layer 1 unbundled services. Accordingly, the economic principles discussed in the expert report can also apply to services for which non-discrimination obligations apply.
- Further, the equivalence obligation reflects policy choices already made. Chorus must provide access seekers the same service, price and access to information as it provides its own business unit. This policy requirement goes beyond the pricing principles discussed.
- Where prices are reduced for penetration pricing purposes, this should be born within the layer 1 price. This is least distortionary and promotes the purposes of the Act.

Non-discrimination and equivalence in the New Zealand context

17. Dr Vogelsang outlines the economic principles relating to equivalence and non-discrimination. Equivalence relates to relative price levels between upstream access prices and prices in downstream markets. A violation of equivalence often takes the form of a price squeeze test.

Non-discrimination (**ND**) concerns price structures charged to the various access seekers (including the incumbent). This can include bundling of multiple Layer 2 products which can resemble quantity discounts.

18. We appreciate the economic distinction relates to the questions put to Dr Vogelsang. However, and while we don't believe it changes the nature of Dr Vogelsang's economic advice, the Fibre Deed non-discrimination and equivalence obligations have a specific legal and policy context in New Zealand that the Commission will need to apply.

19. The 2010 RIS refers to the concept⁴:

35 That all Government funded (in whole or in part) infrastructure would be subject to non-discrimination and equivalence requirements has been a key aspect of Government policy on the UFB Initiative since it was first developed. Non discrimination and equivalence were, for example, central to the Invitation to Participate in the Initiative issued in December 2009. They are also key concepts in the wider telecommunications regulatory context and are the foundation of Telecom's Operational Separation Undertakings.

20. Accordingly, non-discrimination broadly requires LFCs to not treat access seekers or itself differently unless those differences are objectively justifiable and do not harm, or are unlikely to harm, competition. Non-discrimination obligations apply more generally to all wholesale telecommunications services provided using, or providing access to unbundled elements of, a fibre network (including unbundled layer 1 services).

21. For layer 1 services, the more stringent "equivalence of input" standard for non-discrimination applies. In general terms 'equivalence' refers to the provision of a service to any access seeker on the same terms (including price and non-price terms) as that service is provided to the LFC's own internal business unit(s).

22. These distinctions are carried through to the Chorus Fibre Deed where, for layer 1 services, Chorus must provide itself and the access seekers with the same input service, delivered to itself and access seekers on the same timescales and on the same terms and conditions (including price and service levels) by means of the same systems and processes (including operational support processes), and provide its own business operations and the access seekers with the same information about that service and those same systems and processes.

23. Accordingly, the New Zealand framework includes specific obligations that:

- a. For layer 1 services, LFCs provide the same input service using the same processes and systems to access seekers as it does for its own business operations; and
- b. For all wholesale services provided using the Crown funded fibre network, LFCs must not treat access seekers and the LFCs own business unit differently for any aspect of the service.

24. Therefore, the economic concepts relating to the pricing of services apply to wholesale telecommunications services that use the fibre network more generally, and to the specific services to which EOI applies.

25. Further, the Commission should consider how EOI, non-discrimination and equivalence work together to give effect to the relevant purpose of the Part4AA and Part 6 of the Act. If the service design, business rules or pricing methodology will result in an anti-competitive outcome, it cannot be a legitimate choice in light of the purpose of Part 4AA and Part 6. For example, while Dr Vogelsang notes an imputed internal price approach would enable Chorus to choose from a

⁴ <https://www.mbie.govt.nz/assets/0754d165c9/regulatory-impact-statement-ufb-regulatory-regime.pdf>

variety of methods, if the method is discriminatory or enables Chorus to cause an anti-competitive outcome then that option is prohibited.

Penetration pricing and price squeeze test

Q1. What is your view on the implications of potential penetration pricing (downstream pricing below cost) for the EOP obligation on the PON Fibre Access Service?

26. The expert report discusses penetration pricing in the context of setting the layer 1 price. Penetration pricing is where a service may be priced low in order to build volumes quickly and exploit economies of scale or customer experience. The provider is not expected to make a loss over the life of the investment, rather it's a pricing strategy to build volumes quickly in early years.
27. The concern is that if a resource cost-based methodology is used to price the upstream product, then this might squeeze the margin between the downstream (bundled layer 1/2) price and layer 1 input price. Alternatively, a "retail minus" methodology might imply layer 1 prices below cost and impact negatively on the LFCs' incentives to invest.
28. It is unclear how this can be a material concern with Part 6 and the Commission's proposed BBM. The Act requires the Commission to wash up under and over recovery through regulatory periods, and the LFC's expected return is guaranteed by the building block model (unless the BBM is specified to leave this risk with the LFC provider). Accordingly, any under recovery of the layer 1 service through penetration pricing will be caught up in later periods at the time that the revenue potential of the fibre network is higher.
29. The Commission should further consider the relationship - or interaction – between pricing practices and the BBM. The BBM and wash up mechanism, for example, leaves LFCs with the ability to deploy tactics such as penetration pricing for anti-competitive purposes in the short-term with a guaranteed recoupment in the long term once incentives for alternative competitive investment have been substantially reduced or removed.

Q2. What are your views on each of the following conclusions in the expert report?

a) The EOP obligation does not require a particular pricing methodology or structure, but it does entail certain restrictions on the pricing freedom of the service provider.

30. We agree that the EOP does not specify a particular price, but it does restrict how Chorus prices services. Chorus must set prices in a non-discriminatory and equivalent way – applying the same price for access seekers and Chorus. Where the price must be inferred, it must be the same as what Chorus charges itself for EOI defined services using the economic costs identified by Dr Vogelsang.
31. Further, as noted above, if the method is discriminatory or enables Chorus to cause an anti-competitive outcome then that option is prohibited. For example, the discernible price required by the Deeds - or inferred price - must not discriminate between access seekers relative to Chorus' own business. This discrimination includes where the pricing structure favours Chorus or access providers by, for example, distorting competition in downstream and adjacent markets.

b) The EOP obligation requires that the LFCs' own downstream operations can profitably supply the downstream product if faced with the upstream access price (ie, a form of 'no price squeeze' test has to be satisfied based, at least, on an 'equally efficient competitor' standard).

c) There is an optional approach to establish a ‘safe harbour’ price level for the upstream price, based on the formula provided in paragraph 15 which, if demonstrated to hold, would be presumed to satisfy the EOP obligation.

32. We agree that, where Chorus prices to itself, this implies a margin squeeze test for the potentially competitive component. Chorus must be profitable in the downstream market, otherwise it should exit that market. The innovation benefits of competition should push the Commission to using equally efficient costs in the market.
33. Nonetheless, the Commission shouldn't aim to set a price that guarantees Chorus remains at layer 2 to meet service obligations - the Act provides that regulation be lifted where there is competition and these obligations can be amended. It would be a perverse outcome if the pricing of input services was set in order to prevent the specific outcomes the Act is seeking to promote.
34. We support the test (minimum of LRIC or margin) as a practical balancing of the objectives. The IMs require that services be priced on cost, and therefore expect to move to LRIC over time. This shows the importance of pricing principles in IMs - i.e. how the Commission is going to determine cost – as these should align and support the pricing obligations of the Deed.

Non-discrimination

- In practice, as noted above non-price discriminatory practices are as important for competition and efficiency as pricing.
- The non-discrimination obligation does not require the same averaged price. The New Zealand framework seeks to promote efficient competition, and this means different price constructs are permitted.

35. The Commission has asked Dr Vogelsang to focus on non-discrimination as it applies to pricing practices. However, the obligations to not discriminate between access seekers and LFCs own business units applies to and non-price aspects of the service and these – in practice – are as important for competition and efficiency as price.
36. We agree that the Commission should consider non-discrimination pricing further as we are already seeing price discrimination occurring in layer 2 services and shaping of competition in downstream markets. For example, Chorus already provides connection incentives and marketing funds outside the reference offer construct that, in practice, have the effect of favouring specific parties or influencing adjacent and downstream markets. We've seen product offers where: marketing contributions are capped in a way that favours small volume providers, speed upgrade incentives structured that disadvantage providers who focus on lower tier speed plans, and connection incentives that disadvantage service providers that have invested in their own networks. These potentially have the purpose or effect of lessening the incentive to embark on efficient investment and competition in downstream and related markets.

Q3. What are your views on each of the following conclusions in the expert report?

a) Any price structure that deviates from a single price per unit (aside from de minimis deviations) or that impacts different access seekers differently (from each other or an LFC's own downstream operations) can be considered to fail the non-discrimination obligation unless it qualifies for the exemption in the relevant provision of the Fibre Deeds.

b) Pricing practices that are likely to favour large access seekers can be presumed to fail the non-discrimination obligation, since they are likely to harm competition.

37. The Act and Deeds prohibit different treatment between access seekers (and Chorus' own business) unless the difference is objectively justifiable and does not harm competition. Dr Vogelsang notes that different pricing structures can impact access seekers differently and that this might suggest that only require single per unit prices are permitted.
38. While we agree that the LFCs must not treat providers differently and that the impact on access seekers is relevant, pricing prices that reflect scale or cost differences do not automatically breach the Deed or Act. Alternatively, a single linear price may also have different impacts across different service providers and may not be consistent with the non-discrimination obligations. For example, a single linear price that fails to reflect the different wholesale costs to provide will discriminate against access seekers that develop lower cost to serve operating models.
39. The fibre deeds obligation is to not treat differently unless the difference can be objectively justified and lessen competition. We believe that this can mean cost reflective pricing or element pricing where this reflects the service being taken or use of resources. Otherwise, wholesale pricing would be structured to maintain inefficient behaviour. Further, the competition that you're looking to avoid harming is efficient competition, not preserving the number of providers or a class of provider in the market. Therefore, we shouldn't look to single prices that discourage scale as this isn't efficient competition - seeking to obtain scale is a form of competition. Pricing practices that favour large access seekers can be presumed to fail the non-discrimination obligations nor harm competition.
40. Accordingly, rather than a simple pricing rule, the Commission should consider pricing structures in terms of their impact on access seekers and competition. The Commission should be concerned about pricing that has the objective or effect of:
- a. Distorting competition in downstream markets, i.e. pricing at wholesale to soften competition in downstream markets; and
 - b. Exclusionary in that it seeks to build or protect market power, i.e. predatory pricing, bundles and margin squeezes⁵.
41. This can occur, as discussed above, where preserving linear prices or current increasing prices with volume seek discourage scale and potentially have effect of softening access seeker countervailing power in related markets.
42. Irrespective of the approach, proposed PONFAS prices likewise raise EOI concerns. The LFCs proposed PONFAS business rules mean that, in practice, the service can only be taken as an end to end fibre service and used to replicate the existing GPON service. The efficiencies that can be accessed relate to the innovation and investment in layer 2 capability and not through reconfiguring the layer 1 capability. However, LFCs all propose a two-part tariff whereby there is a fixed monthly charge for the feeder and splitter and separate per end user charge. Where the business rules leave access seekers unable to make efficiencies or act on these incentives, the two part likely has no legitimate purpose. As Vocus and Vodafone have submitted, the pricing structure makes the service unviable and results in access seeker costs significantly above those Chorus implicitly charges itself.
43. In the case of PONFAS, therefore, it is difficult to see this form of pricing being permitted, leaving a linear price as the legitimate outcome. The Commission should consider the development of

⁵ The OECD competition group has provided guidance on how wholesale prices can undermine competition. For example, this OECD staff paper sets out potential policy concerns: [https://one.oecd.org/document/DAF/COMP\(2016\)15/en/pdf](https://one.oecd.org/document/DAF/COMP(2016)15/en/pdf)

PONFAS pricing further, particularly as it relates to seeking to minimise the degree of unbundling in the market below that would otherwise efficiently occur.

[END]