MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

Regulatory Impact Statement

Implementing a post-2020 fixed line communications regulatory framework

New Zealand Government

Agency Disclosure Statement

1. This Regulatory Impact Statement (**RIS**) has been prepared by the Ministry of Business, Innovation and Employment (**MBIE**).

2. This RIS examines the detailed aspects of the reform package required to implement Cabinet's April 2016 decision to implement a utility-style regulatory regime with the 'building blocks' pricing methodology (**BBM**) for fibre services from 2020 (at which time the current contractual arrangements will cease). It also considers options for the treatment of copper services in the post-2020 regulatory regime.

3. This RIS has been prepared in the following context:

    - Under section 157AA of the Telecommunications Act 2001 (**the Act**), the Minister for Communications must consider whether the existing regulatory frameworks in the Act is the most effective means to meet certain criteria by 31 March 2019.

    - The September 2015 discussion document *Regulating Communications for the Future* took a broad look at the underlying regulatory settings for communications markets, and set the scene for reform after 2020. Responses were received from a variety of submitters representing users, access seekers and network owners, and supported a case for change from the status quo.

    - In April 2016, the Government announced high-level decisions to inform the next stages of policy development:

        i. that a new utility-style regulatory framework with BBM pricing for fixed line services (copper and UFB) will be implemented from 2020;

        ii. that this regulatory framework will be established in the Act (rather than the Commerce Act 1986); and

        iii. that the current obligation to unbundle the point-to-multipoint parts of the fibre network from 1 January 2020 will be retained.

    - An options paper seeking feedback on the implementation of the proposed new regulatory framework was released on 12 July 2016. The views of a range of businesses, representative organisations, individuals, and experts were represented in the 31 submissions received.

4. For the purpose of this RIS, as a result of the April decisions it is assumed that a utility-style regulatory framework with a BBM pricing methodology will be implemented for UFB services from 2020.

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Ministry of Business, Innovation and Employment 8 December 2016

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Background

1. The communications sector is a key enabler of economic growth. The Government's goal is to support a communications environment that provides high quality and affordable services for all New Zealanders, and enables our economy to grow, innovate and compete in a dynamic global environment.

2. The Telecommunications Act 2001 (the **Act**) provides the underlying economic regulatory settings for communications markets in New Zealand. Under section 157AA of the Act, the Minister for Communications (the **Minister**) must commence a review of the regulatory framework (the **Review**) by 30 September 2016, and use best endeavours to complete the Review by 31 March 2019.

3. In September 2015, the Minister released a discussion document which took a broad look at the underlying regulatory settings for communications markets, and set the scene for reform after 2020[1]. Responses were received from a variety of submitters representing users, access seekers, and network owners. There was widespread support for the Government to introduce a new regulatory framework and put in place a building blocks model (**BBM**)-based form of price-quality regulation for Ultra-Fast Broadband (UFB) fibre and copper fixed line communications services (**fixed line services**) from 2020.

4. In April 2016, Cabinet made the following high level decisions[2] in relation to the post-2020 regulatory framework for fixed line services:

    - that a new utility-style regulatory framework with BBM pricing for fixed line services (copper and fibre) will be implemented from 2020;
    - that this regulatory framework will be established in the Act (rather than the Commerce Act 1986); and
    - that the current obligation to unbundle the point-to-multipoint parts of the UFB network from 1 January 2020[3] will be retained.

5. In July 2016, an options paper seeking feedback on the implementation of the proposed new regulatory framework was released. Submissions were sought over a seven week period, with workshops held by the Ministry of Business, Innovation and Employment (**MBIE**) in early August 2016 and final written submissions received on 2 September 2016.

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[1] *Regulating communications for the future: Review of the Telecommunications Act 2001* available at http://www.mbie.govt.nz/info-services/sectors-industries/technology-communications/communications/regulating-the-telecommunications-sector/review-of-the-telecommunications-act-2001/consultation-8-sept-2015

[2] An earlier Regulatory Impact Statement (*Initial decisions on post-2020 fixed lines communications regulatory framework*), which analysed proposals to narrow the full set of options to an initial policy direction was prepared to support Cabinet's decisions. This Regulatory Impact Statement is available at http://www.mbie.govt.nz/publications-research/publications/telecommunications/ris-initial-policy-decisions-for-fixed-line-framework.pdf

[3] This refers to an obligation on UFB providers to start supplying a fibre-based wholesale input service on the residential/mass market part of the UFB network.

6. A large number and variety of submissions were received. On the whole, submitters supported the implementation approach for the Government's proposed utility-style BBM regulatory framework for fixed line services. As expected, there was a range of views presented on the specifics of implementation.

Status quo and problem definition

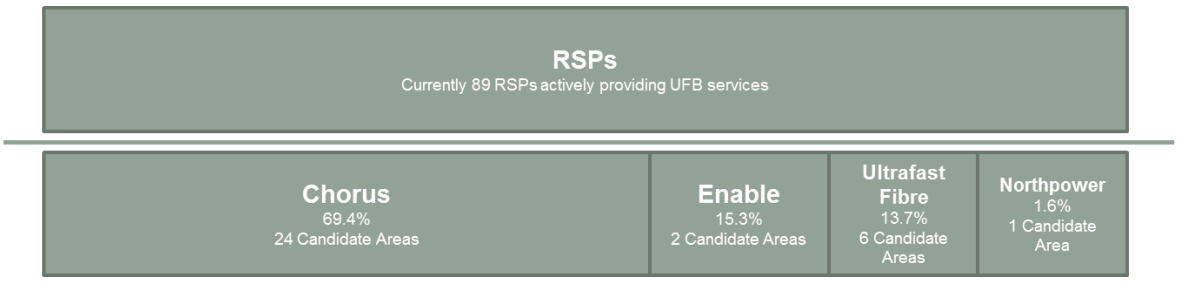
7. The Act sets out the underlying regulatory framework for communications markets in New Zealand. It establishes a sector-specific access and pricing regime for regulated communications services. The framework is monitored and enforced by the Commission.

8. The proposals in the associated Cabinet paper will implement a new regulatory framework for fixed line services which will operate from 2020 alongside the existing regulatory framework[4] that will apply to all other forms of communications services (for example mobile). A separate Cabinet paper expected to be taken to Cabinet early in 2017 will address some reforms to the existing framework.

9. In 2011, Telecom New Zealand Limited was structurally separated into Telecom (now Spark, a retail service provider) and Chorus. Chorus is a wholesale-only fixed line communications network operator, managing the existing copper fixed line network which serves most of New Zealand, and rolling out a large part of the UFB network build. The UFB network is also being built and operated by Enable Networks in Christchurch, Ultra-Fast Fibre in the central North Island, and Northpower Fibre in Northland (these companies collectively referred to as the **Local Fibre Companies** or **LFCs**).

10. We refer to Chorus and LFCs collectively in this document as **UFB providers**. The following table summarises the current UFB arrangements:[5]

Table 1: Summary of current UFB arrangements



11. The Government has committed $210 million of funding towards a UFB extension programme, which aims to increase the percentage of New Zealanders able to access fibre fixed line services to at least 80 per cent. A competitive tender process is currently underway for the UFB extension programme.

[4] In Parts 1 to 5 of the Act.
[5] This table relates to the original UFB programme. It is likely that any UFB extension programme partners will also be included in the new regulatory framework.

12. Wholesale copper services are currently regulated. The two core regulated copper broadband wholesale services offered by Chorus are the Unbundled Copper Local Loop (**UCLL**) service and the Unbundled Bitstream Access (**UBA**) service. These services underpin the vast majority of copper services in New Zealand. A regulated price for these services was set in late 2015 by the Commission using the Total Service Long-Run Incremental Cost (**TSLRIC**) pricing methodology.

13. Wholesale price caps for core wholesale UFB services are currently set in contract between the UFB providers and Crown Fibre Holdings (**CFH**), and will expire on 31 December 2019. Following Cabinet's decisions in April, a new utility-style regulatory framework with BBM price-quality regulation will then apply to these services from the start of 2020. This new framework will be based on the regulatory framework in Part 4 of the Commerce Act 1986 (the **Commerce Act**) which applies to electricity distribution businesses, gas pipeline companies, airports and Transpower, but will be contained in the Telecommunications Act alongside the existing regime for communications services. The new framework will be administered by the Commerce Commission.

14. The April decision was to include both UFB and copper services in the new framework. However, following consideration of submissions on the options paper and further analysis, we are now recommending a revised approach for the treatment of copper services, outside the BBM framework. A problem has been identified with the status quo in submissions and through subsequent analysis by officials, that valuing copper assets would be difficult due to the age of the relevant assets and a lack of consistent cost information. Networks based on alternative technologies could pose a competitive threat, which is unusual in a BBM regime, which typically deals with utilities which are unlikely to or cannot face competition. Decisions by the regulator would therefore be highly contentious due to the risk of stranding copper assets, which could result in significant regulatory uncertainty.

15. This treatment of copper services better aligns with the implementation objectives and will produce better outcomes and greater certainty for consumers, investors and suppliers.

16. For the purpose of this RIS, the situation that would arise absent any further policy decisions (i.e. a utility-style regulatory framework with BBM pricing for both copper and fibre services being implemented from 2020) is taken as the status quo.[6]

Issues addressed in this RIS

17. This RIS examines the three main issues faced in implementing the new regulatory framework:

    - **The scope of services that should be included in the new regulatory framework (Part 1).** Part 1 looks at the overarching question of whether UFB and copper, or only UFB, services should be included in the new BBM price-quality framework.

[6] For more information, see the RIS for the earlier high level policy decisions on the MBIE website: http://www.mbie.govt.nz/publications-research/publications/telecommunications/ris-initial-policy-decisions-for-fixed-line-framework.pdf

- **The treatment of UFB services in the new regulatory framework (Part 2).** Part 2 examines how UFB services should be treated within the framework. In particular, the RIS considers the following key design features:

    i. *Regulated asset base (RAB) guidance – approach to initial valuation:* The extent to which the Government should provide the Commission with policy guidance on the approach to setting the RAB valuation methodology.

    ii. *Unbundling and form of control:* How the price for post-2020 unbundled fibre service should be set.

    iii. *Anchor products:* What the anchor product specifications (particularly those for broadband) should be, and who should set these.

- **The treatment of copper services (Part 3).** Part 3 considers options for the treatment of regulated copper services in the post-2020 environment, taking into account the analysis in Part 1 of this RIS for regulation of these services.

18. Included in Annex 1 is a description of the consequential implementation matters associated with the complete reform package for fixed line services (both copper and fibre) preferred by officials as a result of the analysis summarised in this RIS. These matters, taken together, are intended to ensure that the recommended reform package is implemented efficiently and in line with the implementation objectives.

19. A second RIS will be prepared early in 2017 in association with a second Cabinet paper to examine options for mobile markets, and dealing with non-price issues such as dispute resolution, fault rectification and installation service levels . This RIS relates only to the new regulatory framework for fixed line services.

Objectives

Wider policy objectives

20. The Government's long-term goal is to support a vibrant communications environment that provides high quality and affordable services for all New Zealanders at competitive prices, and enables our economy to grow, innovate and compete in a dynamic global environment.

21. To achieve this:

- High quality fixed and mobile broadband connectivity at competitive prices should be readily available to all New Zealanders, and to sectors critical for growth (for example, business, education, health and government). By 2025, the Government's vision would see:

    i. 99 per cent of New Zealanders able to access broadband at peak speeds of at least 50 Mbps; and

    ii. the remaining one per cent able to access at least 10 Mbps;

- Players in the communications environment should be able to innovate, invest and compete, without being unnecessarily constrained by out-of-date regulatory approaches;
- Business and the broader economy should be able to take advantage of the opportunities provided by high speed connectivity to expand and compete in new markets; and
- Key communications infrastructure and networks should be reliable, secure, and resilient.

22. These are long-term outcomes. To support these, the new regulatory framework for UFB services should be in place before 2020 to provide regulatory predictability, and enable industry participants to make medium to long term plans.

Objectives and criteria for this analysis

23. The objectives for the issues canvassed in this RIS are outlined below. All objectives are consistent with the long term outcomes listed above; the requirements for the Review; and the Treasury's principles for best practice regulation[7].

Criteria	Description
Promoting stability and predictability in the regulatory framework for fixed line services	• Regulatory framework promotes stability of outcomes (for example the risk of price shocks for suppliers and end-users is minimised). • Price signals enable businesses to make reliable business decisions. • Regulatory framework promotes predictable outcomes.
Promoting efficient investment	• Provides sufficient regulatory stability, transparency, and certainty to enable businesses to make efficient long-term investments that benefits end-users. • Promotes the legitimate commercial interests of access providers and access seekers by allowing regulated entities to make a fair return on efficient investments.
Promoting the long-term benefit of end-users	• Regulatory framework should promote the long term benefits of end-users.
Promoting innovation	• Promoting innovation in new fixed line service offerings over time. • UFB suppliers are incentivised to develop new products and services that meet end-user needs over time.

[7] http://www.treasury.govt.nz/regulation/bpr

Part 1: The scope of services that should be included in the new regulatory framework

24. The first over-arching issue is what fixed line services should be included in the BBM part of the new regulatory framework:

    - **Option 1 (the status quo):** Implement BBM for both copper and UFB services.
    - **Option 2:** Implement BBM for fibre services only (preferred option)

Option 1 (the status quo): Implement BBM for both copper and UFB services

25. Under this option, the Government would implement a utility-style regime with BBM as the pricing methodology for both copper and fibre services in the new regulatory framework (as per the April 2016 Cabinet decision).

Advantages

26. Option 1 takes a consistent approach to copper and fibre, recognising that both networks share a number of assets, and encourages efficient investment in both (as the BBM regime promotes certainty of return on efficient investments).

27. This approach also allows flexibility for price averaging between copper and fibre in the transition period, and beyond, and is compatible with the introduction of a suite of 'anchor products'[8] for copper and fibre (with some being technology-neutral).

Disadvantages

28. Including copper in the BBM regime will result in significantly greater regulatory and administrative complexity than implementing BBM for fibre only, will cost more and will increase the risk of regulatory error.

29. The BBM regime requires a valuation of regulated assets at commencement. This valuation is expected to be most significant determinant of the overall level of asset recovery for investors and prices for consumers, so it is very important. For fibre assets there is not expected to be any significant problem because cost information is readily available. However, valuing copper assets would be very complicated and difficult due to the assets being much older and a lack of consistent cost information. Stranding of copper assets because of competing networks would also need to be addressed, which is unusual in a BBM regime (BBM typically deals with utilities which don't face competition). This means that an atypical approach to BBM implementation would be needed. We are not aware of any international precedent in this regard, and this option would raise the risk of not being well understood by interested parties, including capital markets.

[8] 'Anchor products' are wholesale products that regulated suppliers subject to price-quality regulation must offer at or below price caps set by the Commission.

30. Such an approach could diminish the confidence of both consumers and investors in the regime, and increase costs.

Option 2: Implement BBM for UFB services only (preferred option)

31. Under this option, only UFB services would be included in the BBM regime. Copper services would be treated separately (discussed below in Part 3 of this RIS).

Advantages

32. Implementing BBM for fibre only carries a number of advantages:

- Not including copper is more consistent with the objectives of BBM, as copper is more likely to face competition (whereas UFB assets have natural monopoly characteristics).
- Allows for more 'standard' application of BBM and removes the need for an asset stranding mechanism (as this is not expected to occur to a material degree with UFB assets based on current industry consensus about the potential performance of alternative technologies).
- Removes the need for complex guidance from Government to reduce uncertainty on copper RAB valuation by narrowing regulatory discretion, and provides greater administrative and regulatory simplicity.
- A higher degree of regulatory predictability prevails as new regime can closely mirror Part 4 of the Commerce Act.
- Appropriately focuses the BBM regime on long-term technology – fibre – rather than on copper (which is transitional and will likely be inefficient to operate alongside a fibre network in the future).
- Consistent approach to RAB for Chorus and LFCs (all have UFB fibre-only RABs).
- Less likelihood of litigation given contentious issues are largely removed from play.
- Implementation will be simpler, leading to lower costs and less time being required.

Disadvantages

33. While carrying significant advantages, there are also some risks associated with only implementing BBM for UFB services (although officials do not consider these outweigh the benefits).

34. The key disadvantages of this approach are that:

- It will require copper to be dealt with separately.
- The ability for Chorus to recover costs across copper and UFB customers is lost. This could produce higher average fibre prices if UFB uptake is lower than forecast. However, the Commission will be directed (as in Part 4) to 'smooth' the regulated UFB suppliers'

revenue caps (e.g. through changing fibre depreciation rates over time), to avoid a sharp increase in prices. Preliminary modelling shows that the Commission will be able to avoid any significant price increases during the transition to the new framework under this approach, as long as fibre uptake continues broadly on the current trajectory.

Recommendation

35. The following table provides a comparison of each of the options evaluated against the implementation objectives.

Key:	
✓✓	Significant improvement relative to the status quo
✓	Improvement relative to the status quo
–	No change relative to status quo
✘	Deterioration relative to the status quo
✘✘	Significant deterioration relative to the status quo

Issue 1: The scope of services that should be included in the BBM regime	**Promoting stability and predictability in the regulatory framework for fixed line services**	**Promoting efficient investment**	**Promoting the long term benefit of** end-users	**Promoting innovation**	**Net impact**
Option one (the status quo): Implement BBM for copper and UFB services	BBM regime will improve stability and predictability, but copper RAB valuation very unpredictable. Need for asset stranding mechanism. Also complex and raises risk of error.	Likely to promote efficient investment in both copper and UFB services.	Significant regulatory uncertainty, added time and cost.	Neutral impact compared with option two.	Likely to be significant uncertainty in transition. Likely to be costly debate over copper value and prices. BBM regime modified to deal with a 'sunset' technology (copper) would be novel, complex and therefore risky.
Option two: Implement BBM for fibre only	✓✓ Likely to promote predictability for RAB valuation as costs are known for UFB. More stable in	✓ Likely to promote efficient investment in UFB services. Likely to promote investment in	✓ Clearer incentives for Chorus to compete to retain copper customers. Risks of price shocks to consumers can be	✓✓ More likely to focus innovation efforts on UFB services, and on copper where it is most efficient or needed (where it is	✓✓ More consistent with conventional application of BBM—focus on where competition not possible (or is unlikely). Appropriately targeted at assets

Issue 1: The scope of services that should be included in the BBM regime	**Promoting stability and predictability in the regulatory framework for fixed line services**	**Promoting efficient investment**	**Promoting the long term benefit of** end-users	**Promoting innovation**	**Net impact**
	operation because no need for asset stranding mechanism, and otherwise traditional application of BBM (largely the same as Part 4).	improved copper services to compete.	managed.	under competitive threat).	with long-term natural monopoly characteristics Likely to operate in a stable, predictable manner. Focuses only on growing fibre technology, and does not cover 'sunset' technologies.

36. The preferred option is that copper is **not** included in the BBM regime (Option 2). Implementing BBM for UFB services only will be significantly simpler and more predictable, and will provide a more effective regime for promoting the long term benefit of end-users of fixed line services, while dealing with a number of complex issues which relate to copper services in the context of impending stranding. These matters are addressed in Part 3 of this RIS.

37. Key regulatory objectives are met more directly under Option 2, which ensures regulation is only applied where it is necessary, and applied proportionately.

38. Additionally, Option 2 has the major benefit of providing greater certainty for consumers and investors on key outcomes from 2020.

Part 2: The treatment of UFB services in the post-2020 regulatory regime

39. In order to give effect to Cabinet's decision to implement BBM price-quality regulation for UFB services from 2020, there are three key design issues:

- ***Regulated asset base – approach to initial valuation:*** The extent to which the Government should provide the Commission with policy or legislative guidance on its approach to setting the regulated asset base (**RAB**) valuation methodology.
- ***Unbundling and form of control***: How the price for post-2020 unbundled fibre services should be set.

- ***Anchor products:*** What the anchor product specifications (particularly those for broadband) should be, and who should set these.

40. This RIS examines feasible options in relation to each of these design considerations.

Issue 1: Regulated Asset Base – approach to initial valuation

41. As noted earlier, to implement a BBM framework, the regulator first needs to carry out a valuation of the relevant assets of regulated suppliers. This valuation determines the opening value of the 'regulated asset base' (**RAB**) for each supplier and has a significant impact on the level of the supplier's allowable regulated revenues and the level of regulated prices.

42. The valuation of regulated suppliers' assets was carried out by the Commission when Part 4 of the Commerce Act was introduced[9]. The approach in Part 4 was to allow the Commission complete discretion (subject only to the purpose statement) on how to approach the valuation exercise. The Commission developed and applied an approach which largely withstood merits appeals to the High Court.

43. However, the lessons from Part 4's application are difficult to apply in the context of fixed line communications assets and services, due to more variable asset lives and demand profiles. In addition, there are some aspects of the approach taken to RAB valuation that have significant overall impacts on policy outcomes under the framework, so are legitimate areas for providing policy guidance.

44. Accordingly the question arises whether the Government should narrow the range of uncertainty for the RAB valuation exercise by providing some form of guidance.

45. To meet the above objectives, this RIS examines two options for this issue:

- **Option 1: No guidance** – The Commission decides on the appropriate methodology for RAB valuation (preferred option) with some high level direction from Government.
- **Option 2: Guidance** – Provide the Commission with prescriptive guidance for its decision on a RAB valuation methodology.

Option 1: The Commission decides on the appropriate methodology for RAB valuation with some high level guidance from Government (preferred option)

46. Under option 1, the Commission would determine the appropriate approach to RAB valuation without prescriptive guidance on the approach it should take from the Government. The Commission would be required to develop an input methodology on RAB valuation that would specify the approach it will take to valuing assets, taking into account some high level direction from the Government. It is proposed that the Commission refer to actual costs

[9] This was carried out for regulated gas pipeline, electricity lines, electricity transmission, and airports assets – not communications assets.

incurred by regulated suppliers when undertaking its valuation, but otherwise determine the approach at its discretion[10].

Advantages

47. This approach would be more consistent with the regime under Part 4 of the Commerce Act, which does not prescriptively define the approach to valuation methodology and under which the Commission has made previous decisions on the appropriate methodology for Part 4 regulated sectors[11].

48. Officials consider the Commission's experience with the Part 4 regime make it well-placed to determine the appropriate methodology and deal with the technical elements associated with this decision. This is particularly because the decision to include only UFB fibre services in the BBM regime means that only fibre assets (and some shared assets) will need to be valued, which should not be particularly contentious given the availability of reliable cost information.[12]

Disadvantages

49. Without guidance, there is a risk that the desired policy outcomes may not be achieved, or that investors are exposed to regulatory risk. However, as noted above, this risk is low given known cost information. In addition, requiring the Commission to complete input methodologies[13] prior to 2020 will provide regulated suppliers with certainty about the approach to RAB valuation before the new regulatory framework commences.

Option 2: Prescriptive guidance – Provide the Commission with prescriptive guidance for its decision on a valuation methodology

50. Under this option, the Government would provide prescriptive guidance on the RAB valuation methodology. There are a number of ways in which such guidance could be provided. For example, the Government could:

- Specify the policy outcomes that must be achieved when the Commission determines the initial RAB value; or
- Specify methodologies that must be used.

Advantages

[10] The Commission would likely develop its proposed approach based on previous precedent under Part 4 (to the extent it is applicable), the purpose statement in the new framework and the high level direction from the Government.

[11] We note that while Part 4 is silent on this issue, under option 1 the Government would be providing some high level direction about the use of actual costs. This option is more consistent with Part 4 than option 2, however.

[12] UFB providers have been required to capture and disclose their costs for building the UFB network to the Commerce Commission since the beginning of the UFB programme in 2010. This information will be available for the RAB valuation exercise.

[13] Input methodologies set the rules and processes for regulatory matters under Part 4 of the Commerce Act and will be replicated in the new framework for fixed line services. They are consulted on, and then when set bind both the regulator and regulated suppliers, so promote predictability of the framework.

51. As RAB valuation has some components which are policy issues[14], it would be legitimate for the Government to provide guidance. Prescriptive guidance would further reduce the range of likely outcomes compared to Option 1, which could provide a greater degree of certainty for stakeholders.

Disadvantages

52. RAB valuation is a highly technical matter that would benefit from consideration by the Commission through a structured and consultative process.

53. While providing prescriptive guidance could provide greater certainty as to the likely methodology the Commission would use for valuing assets, it would not provide complete certainty of outcomes. Specifying a particular methodology could be done. However:

- This could result in unintended outcomes if the Commission lacks flexibility to apply offsetting factors in response to unanticipated issues;
- There is a risk the Government could be seen to be making technical decisions more suitable for regulatory agencies to determine.

54. Prescriptive guidance would also need to be considered alongside the purpose statement for the new framework, as that purpose statement contains several elements and desired outcomes for the regulatory framework.

Recommendation

55. The following table provides a comparison of each of the options evaluated against the implementation objectives.

56. For the purposes of this evaluation option one is taken as the status quo. This is because it is the new framework is intended to be based on Part 4 of the Commerce Act (and unless there is good reason to depart from it).

Key:	
✓✓	Significant improvement relative to the status quo
✓	Improvement relative to the status quo
–	No change relative to status quo
✘	Deterioration relative to the status quo
✘✘	Significant deterioration relative to the status quo

[14] For example, the value of the RAB has an impact on the amount of revenue that suppliers subject to price-quality regulation need to recover from non-anchor products, which will have an impact on the incentive to innovate and upsell customers to higher value products.

Issue 1: Regulated Asset Base – approach to initial valuation	**Promoting stability and predictability in the regulatory framework for fixed line services**	**Promoting efficient investment**	**Promoting the long term benefit of** end-users	**Promoting innovation**	**Net impact**
Option one (status quo): The Commission decides on the appropriate methodology for RAB valuation with only high level guidance from Government	Given scope of the RAB is fibre-only, the outcome is expected to be reasonably predictable without any prescriptive guidance.	Reasonable valuation outcome will support efficient investment.	Reasonable valuation outcome will support the long term benefit of end-users by promoting dynamic efficiency.	Neutral impact on innovation.	This option is the most consistent with Part 4 of the Commerce Act, and is reasonably predictable while still allowing the Commission to exercise its discretion to achieve a good outcome.
Option two: Provide the Commission with prescriptive guidance for its decision on a valuation methodology.	✓ Providing prescriptive guidance to the Commission may slightly increase predictability, but also creates risk of locking in the wrong settings.	× Could lead to a reasonable valuation outcome, which would support efficient investment, but could also limit flexibility, and harm investment incentives.	× Could lead to a reasonable valuation outcome, which would support the long-term benefits of end-users, but could also limit flexibility, harming the interests of end-users.	– Neutral impact on innovation.	× This may provide slightly increased certainty, but it departs from Part 4 precedent and risks locking in settings which cannot be adjusted to respond to changing circumstances.

57. Officials recommend proceeding with Option 1 – the Commission decides on the appropriate methodology for RAB valuation with some high level guidance from Government. Officials consider the Commission is well-placed to determine the appropriate methodology and deal with the technical elements associated with this decision, alongside high level guidance from Government.

58. In particular, this recommendation is based on the fact that there is reliable information for the valuation of UFB fibre assets and, although fibre is a new access technology, the valuation of fibre assets is not expected to throw up any major problems. Therefore we consider that the valuation process should not be particularly controversial or prone to uncertainty. In this context we do not think there is a need to provide any prescriptive guidance.

59. If guidance were to be provided, it would be difficult to predict the outcomes that would be generated, and more importantly introducing guidance introduces the risk of unintended consequences due to a lack of flexibility.

60. We also consider that Option 1 will be enhanced by requiring the Commission to complete input methodologies prior to 2020, providing regulated suppliers with certainty about the approach to RAB valuation before the new regulatory framework comes into effect.

Issue 2: Unbundling and form of control

61. In April 2016, the Government announced that it would retain the existing obligations on UFB providers to provide unbundled services on their networks from 2020.

62. After December 2019, Chorus and LFCs are required to start offering wholesale unbundled access to the GPON (mass market/residential) parts of their UFB networks. This is a requirement of the open access deeds of undertaking for fibre services.[15] The deeds do not impose any price controls on these services (so they must be provided but the price can be set by negotiation with the supplier).

63. In translating the obligation from the open access deeds into the new regulatory framework, the question arises how this new unbundled service should be treated within the 'anchor product' construct. The approach to unbundling also needs to be consistent with the form of control (which is initially proposed to be a 'revenue cap' form of control).

64. We note that increased unbundling may reduce competition at the retail level for fixed line broadband services and increased vertical integration by retail service providers (**RSP**s). There is an argument that large RSPs would be the only ones with sufficient resources to unbundle fibre at a large scale, which would drive consolidation and force smaller RSPs out of the market (thus reducing competition).

65. In addition, UFB operators may be unable to provide a range of affordable layer 2 UFB products due to greater erosion of their revenue at layer 1. This may lead to fewer entry-level products being offered at layer 2 for consumers.

66. To meet the above objectives, this RIS examines two feasible options[16] for unbundling and form of control:

- **Option 1 (the status quo):** Unbundling consistent with current deeds of undertaking (preferred option).
- **Option 2:** Commission sets the price for unbundled fibre service from 2020.

[15] The deeds are available on the MBIE website: http://www.mbie.govt.nz/info-services/sectors-industries/technology-communications/communications/broadband-mobile-initiatives/phase-one-broadband-initiatives

[16] Other options such as removing unbundling altogether have been discounted because they are not consistent with the Government policy decisions announced in April (paragraph 60).

Option 1 (the status quo): Unbundling consistent with current deeds of undertaking (preferred option)

67. As noted above:

- UFB providers are already required under the deeds of undertaking (the **Deeds**) to provide an unbundled fibre service on their networks from 2020.
- As part of the April 2016 decisions, Cabinet agreed that this obligation will be retained.

68. There are two key stages associated with option 1:

- **Stage 1:** From 2020, prices for unbundled fibre service would initially be set by the regulated supplier (subject to overall revenue cap and 'equivalence of inputs' obligations). This will not be an 'anchor product' within the framework; and
- **Stage 2:** If required, following an investigation by the Commission and Ministerial approval of the recommendations, the prices for unbundled fibre services can be set by the Commission. If this occurs the unbundled fibre service will become an 'anchor product' within the framework.

  A mechanism would be included in the framework enabling the Commission to commence an investigation and make a recommendation to the Minister for Communications into:

  i. Whether the unbundled fibre service should become a price-capped anchor product; and

  ii. Whether the form of control should change from a revenue cap to 'price caps' (which is more suitable where regulated unbundling is in place).

Advantages

69. Option 1 supports a predictable transition from the current regime, and is a proportionate approach that provides incentives to innovate or face additional regulation. It is also consistent with UFB partners' expectations and the settings in the current deeds.

70. Provided there is a clear process for introducing unbundling/price caps, this option would promote certainty in the regulatory framework for fixed line services. The supplier is likely to focus on improving layer 2 services to avoid price-regulated unbundling.

Disadvantages

71. Option 1 does not introduce price-regulated unbundling from the start of the new framework. While this is a legitimate policy choice (and balancing decision) for the Government, some submitters argued strongly against this, on the basis that they would be unable to compete in the supply of products which use the unbundled services as an input.

72. In theory, Option 1 allows the supplier to depart from cost-based prices for unbundled services. However, the supplier will have "equivalence of inputs" obligations, which will limit

the scope for anticompetitive behaviour. Information disclosure would also give information about the costs that need to be recovered by an unbundled service. Nonetheless, there is a risk this option would give the supplier more control over the scale of unbundling. The regulated supplier will have limited incentives to raise the price for unbundled services given the overall constraint of the revenue cap.

73. This option would create some uncertainty for regulated suppliers from the potential investigation and change to unbundling/price caps, but if the test is clear then this would be minimised.

Option 2: Commission sets the price for the unbundled fibre service from 2020

74. Under Option 2 the Commission would directly set the price for unbundled fibre service as an 'anchor product' from 2020.

75. Under this option it is likely that the form of control would also need to change to 'price caps' from the start of the new framework.

Advantages

76. The key advantage to option 2 is that it creates a simple approach to unbundling and aligns the framework in favour of parties seeking unbundled services. Regulating the price of unbundling from 2020 may also encourage the UFB operators to innovate more, but this is far from certain, and the broader system already encourages innovation without this additional element.

77. In either option, RSPs would always have access to anchor products with wide appeal at prices attractive to consumers. These are likely to undermine incentives to unbundle.

Disadvantages

78. There are several disadvantages associated with Option 2:

- This approach would depart from the current settings in the deeds.
- It would limit regulated suppliers' flexibility to develop an optimal product set and price discriminate. They have submitted strongly on the likely impacts immediate price-regulated unbundling would have.

Recommendation

79. The following table provides a comparison of each of the options evaluated against the implementation objectives.

Key:	
✓✓	Significant improvement relative to the status quo
✓	Improvement relative to the status quo
–	No change relative to status quo
✘	Deterioration relative to the status quo
✘✘	Significant deterioration relative to the status quo

Issue 2: Unbundling and form of control	**Promoting stability and predictability in the regulatory framework for fixed line services**	**Promoting efficient investment**	**Promoting the long term benefit of** end-users	**Promoting innovation**	**Net impact**
Option one (the status quo): Unbundling consistent with current deeds of undertaking.	Consistent with policy position announced in 2011 – will give confidence to investors on long term predictability.	Would promote efficient investment by regulated suppliers in layer 2 services. If necessary price-regulated unbundling would promote efficient investment by other parties.	Likely to maximise the long term benefit by providing incentives to innovate at layer 2, with a 'safety valve' if such innovation does not eventuate.	May provide incentives to innovate at layer 2 to avoid price regulated unbundling.	Best overall impact as allows current UFB providers flexibility but provides incentives to innovate over time, and retains safeguard if needed.
Option two: Commission sets the price for unbundled fibre service from 2020.	✘ The rules for unbundling will be simpler and more predictable, but the policy approach will be different from the previously announced approach.	✘ May encourage more investment by RSPs at layer 2.	– If the regulated suppliers are reluctant to innovate this would stimulate competition without requiring an investigation.	✓ Would avoid the risk of the unbundled product not being suitable for competition and innovation from the outset.	✘ Would limit regulated suppliers' flexibility to develop an optimal product set and price discriminate. It is not clear whether widespread unbundling of fibre would occur in either scenario.

80. Officials recommend proceeding with Option 1 (unbundling consistent with current deeds of undertaking) as it is the most clearly aligned with the implementation objectives, and has a

smaller number of manageable risks compared to Option 2. Even though Option 2 would arguably provide a simpler approach to unbundling and form of control compared to Option 1, this benefit is outweighed by the risks.

Issue 3: Anchor products

81. Under Part 4, there are no specific requirements to provide particular products within price caps where a supplier is subject to a revenue cap. By default, there would not be any anchor products. The problem is that there would be no assurance that basic services would be made available.

82. Anchor products ensure that basic voice and broadband services are available at reasonable prices, and create a price and quality 'anchor' for other services provided by suppliers. Without anchor products, under a revenue cap the regulated suppliers would have considerable discretion to price their products – so long as they did not breach the cap.

83. Suppliers subject to BBM will be required to provide two regulated fibre 'anchor' products – one for broadband and one for voice. These anchor products can be requested by an RSP and must then be provided by the regulated supplier.

84. In all cases, the price and quality terms of the anchor products are set by the Commission, although they will initially be linked to 2019 prices. However, what the anchor product specifications[17] (particularly those for broadband) should be, and who should set these, are key design questions that need to be addressed.

85. This RIS looks at two feasible options officials have identified for ensuring effective economic anchoring in moving to a BBM framework:

- **Option 1 (the status quo):** No anchor products.
- **Option 2:** Anchor products specified by the Government for the initial regulatory period, and by the Commission thereafter (preferred option).
- **Option 3:** Anchor products specified by the Commission.

Option 1 (the status quo): No anchor products

86. While there are now wholesale products in the market (required under the Crown Fibre Holdings contracts) equivalent to our proposed anchor products, the specific concept of 'anchor products' is not used in the Part 4 regulatory framework. At present, regulated suppliers subject to price-quality regulation are regulated under either 'price caps' or 'revenue cap' forms of control.

87. Utilising a 'revenue cap' form of control with no anchor products could expose many end-users to price shocks, given the pricing flexibility under a pure revenue cap, and would limit the effectiveness of the regulatory regime.

[17] Specifications refers to the headline features of the anchor product, which include upload and download speeds for broadband products.

Option 2 (preferred): Anchor products specified by the Government for the initial regulatory period, and by the Commission thereafter

88. Under this option, the two anchor products for the initial regulatory period (2020–2023) would be specified by the Government, and thereafter the Commission would be required to update the anchor products to ensure they remain up-to-date and effective as economic anchors[18] for the rest of the regulated supplier's product set.

89. For increased certainty, a set of criteria, or a formula, would be included in legislation for the Commission's updating of anchor products. For example, prices for anchor products would initially be set with reference to existing (2019) prices. Thereafter, anchor product specifications must be determined to ensure that the relevant anchor product:

- Provides an upper limit on pricing for a product that is attractive to a large number of customers; and
- Provides a price and quality 'anchor' for the other 'non-anchor' products provided by regulated suppliers.

90. The two initial anchor products are:

- a 100/20Mbps UFB broadband product; and
- a voice-only UFB product.

91. Officials have considered a number of different anchor product specifications. In the options paper we proposed a voice product as well as two tech-neutral broadband products: entry level (up to 15/1 Mbps), and basic broadband (up to 100/20 Mbps). With the move to a fibre-only RAB, technology neutrality is no longer required and the anchor products can be restricted to the UFB network. We note that some submitters to the options paper argued for an anchor product as fast as 1Gbps, but we consider that the 100Mbps anchor product is adequate to have an economic anchoring effect[19].

Advantages

92. We believe the two proposed UFB anchor products will be sufficient to protect consumers, while giving the regulated suppliers sufficient flexibility to price their other products within the overall revenue cap.

93. Setting the anchor products in place ahead of time ensures the system is predictable for end-users and regulated suppliers.

[18] This means that the anchor products act as price and quality 'anchors' for other products provided by regulated suppliers, so they provide a constraint on other products. To be effective, an anchor product needs to be desirable to a sufficient number of customers that it constrains the behaviour of suppliers in relation to their other products.

[19] Again, this means that a sufficient number of customers will be using the product – it does not need to be the most popular product, for example.

Disadvantages

94. Setting the specifications for the anchor products now creates the risk that they may be set at the wrong level, with their specifications being either too low or high to create an effective economic anchor.

Option 3: Anchor products specified by the Commerce Commission

Under this option, the two anchor products for the initial regulatory period would be specified by the Commission. As with Option 2, the Commission would be required to update the anchor products prior to each subsequent regulatory reset[20] to ensure they remain up-to-date and effective as economic anchors for the rest of the regulated supplier's product set.

Advantages

95. Under Option 3, a decision on anchor products would be made closer to 2020. This would result in less risk of error, as decisions would be able to reflect the most current market conditions.

Disadvantages

96. This option would provide a low level of predictability for affected suppliers and industry prior to 2020, as they would need to wait until the Commission determines the anchor product specifications (likely in 2019) to gain certainty on the likely product set.

Recommendation

97. The following table provides a comparison of each of the options evaluated against the implementation objectives.

Key:	
✓✓	Significant improvement relative to the status quo
✓	Improvement relative to the status quo
–	No change relative to status quo
✘	Deterioration relative to the status quo
✘✘	Significant deterioration relative to the status quo

[20] We are proposing that the new regulatory system will have regulatory periods, with the initial period being three years. At the end of each period, the Commission would set a new price-quality path for suppliers subject to price-quality regulation and update the anchor products.

Issue 3: Anchor products	Promoting stability and predictability in the regulatory framework for fixed line services	Promoting efficient investment	Promoting the long term benefit of end-users	Promoting innovation	Net impact
Option 1 (status quo): No anchor products.	This option is likely to lead to a significant level of uncertainty for end-users and RSPs.	Neutral effect.	This option is likely to harm the interests of end-users as they will be insufficiently protected.	The absence of anchor products may encourage regulated suppliers to offer new products within the flexible revenue cap.	This option would likely promote innovation, but would create a significant level of uncertainty and would not protect consumers from high prices for basic products.
Option 2: Anchor products specified by the Government for the initial regulatory period, and by the Commission thereafter.	✓✓ Setting anchor product specifications in legislation mean this is the most stable and predictable option.	– Neutral effect, so long as the anchor products do not place excessive constraints on regulated suppliers' abilities to reach their revenue cap.	✓✓ Effectively promotes the long-term interests of end-users by protecting them with economic anchors.	✓ Although the regulated supplier will be constrained to some extent by the anchor products, they will have the flexibility to innovate within the revenue cap.	✓✓ This option best promotes our objectives through being predictable, protecting end-users' interests, and not constraining regulated suppliers more than is necessary.
Option 3: Anchor products specified by the Commission.	✓ Significant unpredictability on the likely product set until close to 2020.	– Neutral effect, so long as the anchor products do not place excessive constraints on regulated suppliers' abilities to reach their revenue cap.	✓✓ Effectively promotes the long-term interests of end-users by protecting them with economic anchors.	✓ Although the regulated supplier will be constrained to some extent by the anchor products, they will have the flexibility to innovate within the revenue cap.	✓ This option is similar to option 2, but is less predictable.

98. Officials recommend proceeding with Option 2 (anchor products specified by the Government for the initial regulatory period, and by the Commission thereafter). Compared to a situation without any anchor products, the anchor products will protect end-users from possible price-shocks in the transition to the new regime. Setting the anchor products now is also a better option than leaving the specifications to the Commission, as that would create significant uncertainty for regulated suppliers and industry leading up to 2020. The value of creating

predictability well in advance of 2020 is greater than the potential risk of getting the specifications wrong.

Part 3: The treatment of copper services in the post-2020 regulatory regime

99. In April 2016, Cabinet agreed that the copper network should be included in the BBM framework for fibre. However, as noted above, following consideration of submissions and further analysis, a revised approach is recommended. We have revised our approach on the basis that it better aligns with the implementation objectives and will produce better outcomes and greater certainty for consumers, investors and suppliers.

100. This section of the RIS considers options for the treatment of copper services in the post-2020 regulatory regime, given the recommended change in approach for these services from the April 2016 decisions.

Issue 1: Alternative options for the treatment of copper services post-2020

101. As discussed in Part 1 of this RIS, the status quo (including copper services in the BBM framework for fibre) is no longer considered a feasible option.

102. This RIS therefore considers three alternative options for the treatment of copper services post-2020:

- **Option 1:** Continue with regulation of copper services.
- **Option 2:** Deregulate copper services in all areas.
- **Option 3 (preferred option):** Deregulate copper services where UFB services are available.

Option 1: Continue with regulation of copper

103. Under this option, key regulated wholesale copper services (Unbundled Bitstream Access (**UBA**) and voice) would continue to be regulated under Schedule 1 of the Act.

104. The Commission would still have the option under Schedule 3 of the Act to initiate the normal process for deregulating copper services. Deregulation could occur across the whole of the country or could be limited to specific geographic areas with sufficient competition.

Advantages

105. Consumers would be protected from price shocks through continued price regulation.

106. The Commission would be able to utilise its existing power to investigate whether the deregulation of copper services was desirable (if for example, there was sufficient competition from fixed wireless services). Leaving this decision to the Commission would ensure the Commission would have the flexibility to act appropriately in the future, rather than the Government deciding on an approach ahead of time.

107. It is likely that this approach would appropriately reflect the market dynamics in 2020. By then, demand for copper services is likely to be substantially reduced, but there are still likely to be a significant number of end-users who use copper services. In areas which will receive UFB eventually, this option would appropriately protect end-users in the transition to the new network. Outside UFB areas, regulation of copper services is likely to be needed for longer.

Disadvantages

108. This option creates uncertainty for the industry on the timing of deregulation. Deregulation would likely occur on an ad-hoc basis across the country, as the Commission determines that competition is sufficiently strong to justify change.

109. This approach may also place an excessive regulatory burden on Chorus, if the Commission is not able to move quickly enough to deregulate competitive areas. This risk could be mitigated by putting in place a simplified process for deregulating copper services, with clear criteria.

Option 2: Deregulate copper services in all areas

110. Under this option, copper services would be deregulated nationwide from 1 January 2020. Chorus would have the freedom to set wholesale copper prices commercially, and could choose not to geographically average its prices. This deregulation would occur on the basis that in UFB areas, end-users have an option to access UFB services, and in most rural areas Rural Broadband Initiative (**RBI**) and other broadband and voice services are available.

111. Accordingly, Chorus would have the option of withdrawing services and removing the copper network in areas where UFB services are available. Chorus would be able to do this according to its own timeframes, however, it would have to provide notice, followed by a reasonable period of time, to enable end-users and RSPs to prepare before copper is withdrawn.

112. Under this option, the Telecommunications Service Obligations for local residential telephone service (**TSO obligations**) on Spark and Chorus would be removed nationwide[21], as the TSO Deeds' pricing is based on the regulated price of copper.

Advantages

113. Deregulating the copper network would recognise the fact that, by 2020, there will be significant competition to the copper network in many areas of New Zealand (including UFB and fixed wireless services). In light of this likely situation, it may be appropriate to remove regulation. Removing regulation may increase the incentives for Chorus to invest in copper services.

Disadvantages

114. For the foreseeable future, there are still likely to be some end-users for whom the copper network is their best option for broadband access[22]. While RBI and other services are available

[21] The TSO consists of a Deed between the Crown and Spark (formerly Telecom) and a Deed between the Crown and Chorus. The purpose of the TSO Deeds is to ensure that the basic telecommunications services for residential consumers that existed in 2001 remain widely available and affordable.

in many areas, they are not universally accessible. In light of this situation, completely deregulating copper services could lead to price shocks for some consumers, or possibly the withdrawal of service without comparable alternatives. In addition to this significant issue, Chorus may face no competitive constraint on prices for its wholesale copper services if its network is completely unregulated.

Option 3 (preferred option): Deregulate copper services where UFB and other fibre services are available

115. Under this option, copper services would be deregulated from 1 January 2020 inside areas where UFB and other fibre services are available (or are expected to be available following completion of the UFB extension programme in 2025) on the basis that:

- LFC area copper services face competitive constraint from LFC fibre (consistent with our approach to putting LFCs only under information disclosure) and Vodafone's Hybrid Fibre-Coaxial network in Christchurch;
- other copper services within UFB areas is constrained by the regulated fibre pricing for Chorus; and
- copper services in areas with other fibre networks is constrained by the pricing of that fibre.

116. Accordingly, Chorus would have the option of withdrawing services and removing the copper network in areas where UFB or other fibre services are available. Chorus would be able to do this according to its own timeframes, however, the following minimum customer protection requirements would apply:

- the availability of UFB services and the ability to install a UFB connection (if necessary) at no cost (except where the connection falls outside the 'standard' and 'non-standard' installation categories) to all affected premises in a reasonable time frame, to ensure end-users do not face a 'gap' without service when copper is withdrawn and before UFB is connected;
- notice to be provided by Chorus, followed by a reasonable period of time, to enable end-users and RSPs to prepare before copper is withdrawn;
- all services currently able to be provided over copper must be available over UFB (except for legacy services such as facsimile);
- information to be provided to end-users about the change and the availability of services after the change (including in relation to the need for battery back-up on UFB services in the event of a power failure); and
- availability of anchor products on the UFB network.

[22] While we do not have reliable numbers on this group, we know that by 2020 the UFB initiative will have made fibre available to 75% of the population and so at least 25% will still rely on copper or other non-fibre technologies (excluding potential UFB extension rollout, which has yet to be determined).

117. Outside areas where UFB or other fibre services are available (or are expected to be available following completion of the UFB extension programme by 2025), Chorus will be required to continue providing the UBA wholesale copper broadband product as well as the 'unbundled copper low frequency service' wholesale copper voice product.

118. Under this option, the TSO obligations on Spark and Chorus would be removed inside areas with UFB and other fibre. Customers in these areas gain little benefit from the TSO (they have options, including for voice-only customers, with comparable UFB, fixed wireless and mobile services available).

Advantages

119. This option would represent regulatory best practice by only regulating where necessary, allowing the deregulation of copper services in areas where end-users have access to the UFB network.

120. End-users in areas outside the footprint of UFB and other fibre, who may still rely on copper services, will be protected through continuing regulation.

121. Deregulating Chorus' copper network in areas with UFB and other fibre would enable Chorus to compete effectively with copper services, and it may be incentivised to invest in its copper network to provide better services or to close it down where it is more efficient to do this.

Disadvantages

122. Customers on copper in areas with UFB or other fibre may face price increases unrelated to the cost of the service. While they may have options, not all consumers will be aware of the choices available to them. Poor information or transaction costs may prevent them from switching. However, RSPs would compete to shift these customers rather than face a higher input cost, and are likely to work hard to increase their awareness of competitive choices.

Recommendation

123. The following table provides a comparison of each of the options evaluated against the implementation objectives.

Key:	
✓✓	Significant improvement relative to the status quo
✓	Improvement relative to the status quo
–	No change relative to status quo
✘	Deterioration relative to the status quo
✘✘	Significant deterioration relative to the status quo

Issue 1: Alternative options for the treatment of copper services post-2020	**Promoting stability and predictability in the regulatory framework for fixed line services**	**Promoting efficient investment**	**Promoting the long term benefit of** end-users	**Promoting innovation**	**Net impact**
Status quo: Copper services included in the BBM	The price of copper services is likely to be relatively predictable, but including copper in the new system would significantly increase the challenges of implementing BBM.	Would promote efficient investment.	Significant regulatory uncertainty, added time and cost do not support this criteria.	Neutral effect.	Including copper in the BBM is likely to generate significant uncertainty, lead to a costly debate over copper value and prices. BBM regime modified to deal with a 'sunset' technology (copper) would be novel, complex and risky.
Option 1: keep copper regulation but freeze prices at 2019 levels	✓✓ Would produce stable and predictable outcomes as all players would be able to anticipate how regulation would work. Some uncertainty as to when services are deregulated.	× May discourage Chorus from investing in its copper network.	✓✓ Would protect end-users in the transition to UFB or wireless services.	×× Likely to discourage innovation on services offered over the copper network.	✓ Would protect end-users, maximise certainty and predictability, and avoids the risk of premature deregulation. However, prices may also become out of date.
Option 2: Deregulate copper services in all areas	× While this would provide a signal that competitive markets will be deregulated, it would generate unpredictability for RSPs and end-users (especially outside UFB areas).	✓ May encourage Chorus to invest in its copper network.	× Would not protect end-users in the transition from the copper network, and end-users may be subject to price shocks.	✓✓ Likely to encourage Chorus to offer innovative services on the copper network.	× Would be a proportionate response to increasing competition to the copper network in urban areas, but does not protect rural end-users. However, there is a risk of error in setting in place a date for deregulation ahead of time (potentially leading to price shocks).

Issue 1: Alternative options for the treatment of copper services post-2020	Promoting stability and predictability in the regulatory framework for fixed line services	Promoting efficient investment	Promoting the long term benefit of end-users	Promoting innovation	Net impact
Option 3 (preferred option): Deregulate copper services where UFB and other fibre services are available	– While this would provide a signal that competitive markets will be deregulated, it would generate some unpredictability for RSPs and end-users.	✓ May encourage Chorus to invest in its copper network.	– Continuing regulation of copper services outside UFB areas would protect relevant end-users where there may be no comparable alternative. End-users in UFB areas have the option of moving to UFB, but poor information or transaction costs may prevent them from switching.	✓✓ Likely to encourage Chorus to offer innovative services on the copper network.	✓ Would be a proportionate response to increasing competition to the copper network. However, there is some risk of error in setting in place a date for deregulation ahead of time (potentially leading to price shocks).

124. The preferred option is to deregulate copper services where UFB services are available (Option 3). This would be a proportionate response to increasing competition to the copper network from the UFB network and RBI fixed wireless services, while protecting end-users outside of UFB areas from price shocks.

Issue 2: Treatment of copper services outside UFB areas

125. As discussed in Part 1 of this RIS, the status quo (including copper services in the BBM) is no longer considered to be a feasible option.

126. Having recommended deregulating copper services where UFB or other fibre services are available, this RIS therefore considers two alternative options[23] for the treatment of copper services outside UFB and other fibre areas post-2020:

[23] Copper prices are currently set on a TSLRIC basis. Option 1 involves a recalculation of this value, whereas option 2 would take the per-line price that arises from the previous TSLRIC valuation without adjustment for inflation.

- **Option 1:** Copper price set on the basis of the TSLRIC pricing methodology.
- **Option 2 (preferred option):** Copper prices are rolled over at 2019 levels (in nominal terms).

Option 1: Copper price set on the basis of the TSLRIC pricing methodology

127. Under this option, final prices for copper UBA and voice would be set on the basis of the TSLRIC pricing methodology.

Advantages

128. This option would provide continuity from the current approach based on TSLRIC.

Disadvantages

129. The TSLRIC process is inherently complex and contentious, has generated considerable uncertainty, provides little protection for consumers, and is unlikely to provide the stability and certainty needed to support ongoing investment and innovation in the sector.

Option 2 (preferred option): Copper prices are rolled over at 2019 levels (in nominal terms)

130. Under this option, the 2019 regulated prices for UBA and UCLL, which have been set by the Commission, would be 'rolled over' annually in nominal terms and continue to apply to those services where they remain regulated from 1 January 2020. This arrangement would be reviewed in 2023 to ensure it remains fit for purpose.

Advantages

131. This option would ensure there are built-in protections against sharp increases in prices for basic voice and broadband users. The prices for copper services in areas not served by UFB or other fibre (predominantly rural areas) would be derived from prior pricing work and be known up front, and there would be complete certainty over these prices from 2020.

Disadvantages

132. This option assumes that copper will be retired in the short-to-medium term for the majority of users. If this does not occur, the rolled over copper prices may become out of date. Rolling over of 2019 copper prices may not adequately compensate Chorus in high cost areas. However, a review of the arrangements for copper is proposed to occur in 2023.

Recommendation

133. The following table provides a comparison of each of the options evaluated against the implementation objectives.

Key:	
✓✓	Significant improvement relative to the status quo
✓	Improvement relative to the status quo
–	No change relative to status quo
✗	Deterioration relative to the status quo
✗✗	Significant deterioration relative to the status quo

Issue 2: Treatment of copper services outside UFB areas	Promoting stability and predictability in the regulatory framework for fixed line services	Promoting efficient investment	Promoting the long term benefit of end-users	Promoting innovation	Net impact
Status quo: Copper services included in the BBM	The price of copper services is likely to be relatively predictable, but including copper in the new system would significantly increase the challenges of implementing the BBM.	This would promote efficient investment.	Significant regulatory uncertainty, added time and cost do not support this criteria.	Neutral effect.	As set out earlier in the RIS, this is likely to generate significant uncertainty, lead to a costly debate over copper value and prices. BBM regime modified to deal with a 'sunset' technology (copper) would be novel, complex and risky.
Option 1: Copper price set on the basis of the TSLRIC pricing methodology.	✗✗ Keeping current arrangements in place would generate substantial instability and unpredictability, as the Commission would have to run the TSLRIC process again for only a small proportion of the network.	✗ The uncertainty involved in this approach is likely to have a chilling effect on efficient investment. It is unclear what the final TSLRIC price would be and its ultimate effect on investment.	✗✗ The TSLRIC pricing system is not fit for purpose in a situation where a competitive entry is highly unlikely. Current arrangements would not promote the interests of end-users.	✗ The uncertainty involved in this approach is likely to have a chilling effect on innovation.	✗✗ This option is not desirable as it would result in substantial instability and unpredictability and would not be in the long term interests of end-users.
Option 2: Copper prices	✓✓ Would produce	✗ May	✓✓ Would	✗ Likely to	✓✓ Would protect end-

Issue 2: Treatment of copper services outside UFB areas	Promoting stability and predictability in the regulatory framework for fixed line services	Promoting efficient investment	Promoting the long term benefit of end-users	Promoting innovation	Net impact
are rolled over at 2019 levels (in nominal terms).	stable and predictable outcomes as all players would be protected.	discourage Chorus from investing in its copper network outside areas with UFB or other fibre.	appropriately protect end-users.	discourage innovation on services offered over the copper network.	users, maximise certainty and predictability. There is a risk that prices may become out of date (though the arrangements will be reviewed in 2023).

134. The preferred option is for copper prices to be rolled over at 2019 levels (in nominal terms) – Option 2. This is a straightforward solution to setting copper prices outside areas with UFB or other fibre, which avoids the unnecessary cost of the Commission initiating another controversial, protracted, and uncertain TSLRIC pricing process.

Consultation

Consultation on the underlying regulatory settings for communications markets

135. In September 2015, the discussion document *Regulating Communications for the Future* was released for public consultation. It sought submitters' feedback on the communications regulatory environment now and post-2020. It also sought views on other issues relating to communications regulation.

136. Submissions were received from a range of submitters, including network owners, retail service providers, user groups, iwi organisations, individuals, broadcasters, and other parties connected to the communications sector[24].

137. As a whole, submitters supported the Government's long-term vision for communications markets and regulatory principles. Submissions demonstrated widespread agreement for change from the current system (there was dissatisfaction with the lengthy and uncertain proceedings for setting copper prices under the current TSLRIC system, for example).

138. Although there was a high level of support for a BBM regime to apply to both UFB and copper services, there was divergence on when this should occur and whether the industry should first be encouraged to reach commercial agreements on wholesale prices.

[24] Submissions are available at http://www.mbie.govt.nz/info-services/sectors-industries/technology-communications/communications/regulating-the-telecommunications-sector/review-of-the-telecommunications-act-2001/submissions-received

139. A number of submitters were cautious about a move to the BBM and consider the detailed design and manner of implementation is critical. These matters were addressed in a second round of consultation (discussed below).

140. Industry submitters were divided on whether a BBM regime should be enacted under the Telecommunications Act or Part 4 of the Commerce Act, but on balance, more submitters favoured using the Telecommunications Act. Importantly, advice from the Commission and MBIE's internal competition advisors favours using the Telecommunications Act.

Consultation on the implementation of the proposed new regulatory framework

141. The *Telecommunications Act Review: Options Paper* (the **Options Paper**) was released in July 2016 for public consultation. This paper followed the Government's announcement in April 2016 on high-level policy decisions on the future regulation of the communications sector.

142. The Options Paper outlined the detail of a proposed 'utility style' regulatory framework for fixed line communication services in New Zealand. Through the submissions process, feedback was sought on a range of implementation issues including:

- the application of price-quality regulation based on the BBM;
- promotion of ongoing investment and innovation in the UFB networks;
- Commerce Commission rules on how assets are valued and costs recovered (input methodologies);
- ways to protect consumers from price shocks during the implementation period; and
- disclosure of costs and revenue information by regulated suppliers.

143. A number of submissions were received, and the views of a range of businesses, representative organisations, individuals, and experts were represented[25]. On the whole, submitters continued to support the Government's proposed BBM regulation for fixed line services, but as expected, a range of views were presented on the specifics of implementation. Some submitters raised significant concerns about including copper services in the BBM regime.

144. Submissions were taken into account when preparing the final policy package. In particular, we have changed our recommended approach to the treatment of copper services as a result of views in submissions.

Consultation on implementing the BBM regime for fibre only

145. It is intended that further targeted consultation will be undertaken on the decision to implement the BBM regime for fibre only.

[25] Submissions are available at http://www.mbie.govt.nz/info-services/sectors-industries/technology-communications/communications/regulating-the-telecommunications-sector/review-of-the-telecommunications-act-2001/submissions-received-options-paper

Implementation

146. Following further targeted consultation, officials will commence work with Parliamentary Counsel Office to prepare legislation amending the Telecommunications Act to implement the new regulatory framework for communications services.

147. The changes would apply from 2020 and be administered by Commerce Commission.

148. The proposed decisions will carry implementation risk due primarily to the scale of the work required to establish and implement Input Methodologies. When undertaken under Part 4 of the Commerce Act this process took approximately two years. This includes all consultation but excludes the time taken for litigation.

149. Key risks include:

- prolonged uncertainty of outcomes due to the length of the process;
- uncertainty due to litigation;
- process not complete before 2020; and
- unintended consequences.

Prolonged uncertainty due to the length of the process

150. The process for implementing BBM regulation involves establishing various Input Methodologies (**IM**s). These IMs set the rules that will be applied in the coming regulatory periods and are therefore critical to ensuring the effectiveness of the regime. Given their long term impact, participating entities are highly motivated to ensure favourable outcomes and therefore allocate significant resources to these processes. Given the high likelihood of litigation, the Commission also allocates significant resource to ensuring that all points raised are addressed.

151. While these processes are underway, Chorus' investors in particular will face uncertainty over regulatory settings on key issues. This short term uncertainty is traded off for longer term certainty and stability once the regime is in place.

152. The length of these processes are well known to investors involved in industries regulated under Part 4 of the Commerce Act and should therefore be well known to telecommunications industry participants who have supported the move to building blocks regulation.

153. Uncertainty for firms that purchase wholesale services and consumers will be mitigated by anchor products being set at 2019 prices.

Litigation Risk

154. Due to the long term effect of the IMs, firms are highly motivated to challenge these in litigation. Although any decisions remain in place until the courts decide otherwise, these processes can prolong uncertainty on key decisions.

Process not complete before 2020

155. Depending on the timing of the passage of legislation there is a risk that the Commission will not be able to fully implement the new regime before 2020. Contracts between CFH and Chorus and LFCs for UFB lapse on 31 December 2019, and so there is some risk of increased uncertainty during the transition period if work has not been completed by 2020.

156. However, we note that there are transitional provisions being proposed that would enable the Commission to 'roll over' existing prices at the end of 2019 for up to 24 months with the prior written consent of the Minister for Communications, which means end-users will not face price increases in this event.

Unintended consequences

157. The proposed reforms are complex and have no direct international precedent, because New Zealand has implemented structural separation of the incumbent (formerly Telecom) and is well into rolling out a widespread fibre-to-the-premises network. Further complexity may be added as some different network elements will be regulated under different parts of the Telecommunications Act and will be subject to different purpose statements. In such circumstances there is always a risk of unintended consequences. In particular, BBM regulation is intended to provide long terms stability and may not easily address any significant change in technology uptake or changes in demand. However, officials are confident that including only fibre in the BBM regime means these risks are manageable.

158. The more prescriptive the legislation is, the less discretion the Commission will have to make decisions to achieve the purpose statements in the Act.

Monitoring, evaluation and review

159. Information collection for monitoring purposes will be organised as a specific project under MBIE's Regulatory Management Strategy. Reporting will take place through this strategy.

160. Two review processes are proposed as part of the policy package:

- in 2023, the Commission and the Minister for Communications will review the arrangements for copper services to determine whether they remain fit for purpose; and
- after 2023, and where a particular uptake threshold has been met for fibre (for example 65%), the Commission may carry out a review of the form of control, whether unbundling should become price-regulated and whether anchor product pricing should become purely cost-based. The Minister for Communications will make the final decision.

161. The Minister for Communications will also regularly review whether fibre (UFB or otherwise) is sufficiently widely available in particular areas beyond the initial UFB footprint to deregulate copper.

Summary of acronyms

BBM	Building block model
CAPEX	Capital expenditure
CFH	Crown Fibre Holdings
Commerce Act	Commerce Act 1986
Commission	New Zealand Commerce Commission
DSL	Digital Subscriber Line technology
GPON	Gigabit Passive Optical Network (or point-to-multipoint network)
HFC	Hybrid fibre-coaxial
LFC	Local fibre company
MBIE	Ministry of Business, Innovation and Employment
Mbps	Megabits per second
RAB	Regulated asset base
RSP	Retail service provider
Telecommunications Act	Telecommunications Act 2001
TSLRIC	Total service long-run incremental cost model
TSO	Telecommunications Service Obligation
UBA	Unbundled Bitstream Access service
UCLFS	Unbundled Copper Low Frequency service
UCLL	Unbundled Copper Local Loop service
UFB	The Ultra-fast Broadband initiative
UFB providers	Chorus, Enable, Ultrafast Fibre and Northpower (and any LFCs created pursuant to the extension to the UFB programme)

Glossary

Term	Definition
Anchor product	Service that UFB providers would be required to supply, with price, non-price and quality terms set by the Commerce Commission.
Broadband	Broadband is a very general term that refers to the wide bandwidth, or high capacity of a connection.
Building Block Model	The building block model (**BBM**) is a methodology used for regulating utilities. Under BBM, a regulated supplier's allowed revenue is equal to the sum of underlying components or 'building blocks,' consisting of the return on capital, return of capital (or depreciation), operating expenditure, and various other components such as taxes and incentive amounts. The initial asset valuation is carried out and is then updated over time based on actual prudent and efficient CAPEX and depreciation.
Communications	The broad sector which includes telecommunications network providers, retail service providers, broadcasters (whether over television, radio or internet), content aggregators and providers, and internet services companies.
Copper	The original national fixed line telephone network is a copper network. It allows electrical currents to flow, and was designed exclusively for telephony, but is now also used for internet services. The network is owned and operated by Chorus.
Dark fibre	Passive fibre optic network infrastructure, which is sold without any optical or electronic signalling. The customer (usually a Retail Service Provider) is responsible for adding the transmission system at both ends. Also referred to as layer 1 or 'unlit' fibre services.
End-user	A telecommunications service end-user is a person (or business) who is the ultimate recipient of a telecommunications service (for example, the person using a broadband internet connection), or a service that relies on a telecommunications service (for example, the user of a monitored health alarm).
Fixed line services	Services provided over fixed line networks including copper, fibre and Hybrid fibre-coaxial networks.
Fibre or fibre optic	An optical fibre is a very thin strand of glass that is used to transport information via a beam of light.

Geographic averaging	The practice of charging a single price to end-users of a particular product across a geographic coverage area, even though the costs of service provision may vary between those users.
Hybrid fibre-coaxial (HFC) network	A broadband network based on a hybrid of fibre and coaxial cable technologies.
Information disclosure regime	A set of requirements providing for disclosure of financial and other network-related information by regulated suppliers.
Input methodologies	A set of rules designed to increase regulatory predictability, whereby the regulator develops and specifies binding methodologies for determining the various inputs into price-monitoring, price-setting and other regulatory activities prior to those activities occurring.
Layer 1 service	A layer 1 service provides wholesale access to the physical/passive layer of a digital communications network, based on the Open Systems Interconnection (**OSI**) model of computer networking. The service is sold without any optical or electronic signalling and includes UCLL and dark fibre, as described above.
Layer 2 service	A layer 2 service provides wholesale access to the data link layer of the OSI model of computer networking. The service includes UBA and UFB bitstream services.
Local Fibre Companies	Companies formed with the Government's partners in the UFB initiative (other than Chorus) to deliver wholesale fibre services in certain areas: Northpower Limited, Ultrafast Fibre Limited and Enable Services Limited, and any such companies formed under the extension to the UFB initiative.
Open access	An 'open access' network is one where the regulated supplier offers wholesale access to network infrastructure or services on non-discriminatory or 'equivalence-of-inputs' terms.
Price- or revenue-smoothing	The gradual adjustment of prices or revenues over time to avoid sudden movements or step changes. It can be undertaken in a present-value equivalent manner.
Price-quality regulation	Regulation of revenues and the quality of services (with the option of setting a cap on the overall revenues of the regulated business and/or on individual service pricing).
Part 4	Part 4 of the Commerce Act 1986, under which the Commerce Commission has a role regulating the price and quality of services in markets where there is little or no competition and little prospect of future competition.
Regulatory Asset Base (RAB)	The value of total investment by a regulated utility in the assets which will generate revenues over time.

Regulatory framework	The regulatory framework is the system of laws, regulations, rules, procedures and organisations within which the regulation of communications services takes place. Components include the access regime (and any associated price control), the regulatory decision maker, rules and procedures for decision making, requirements that regulated entities must comply with, and other matters.
Retail Service Provider (RSP)	A telecommunications provider offering services directly to end-users for their own consumption.
Structural separation	The 2011 structural separation of Telecom Corporation of New Zealand Limited into two separate entities, Chorus Limited (wholesale only infrastructure provider) and Telecom New Zealand, now Spark New Zealand Limited (a Retail Service Provider).
Telecommunications Service Obligations	The telecommunications service obligations (**TSO**) are a set of obligations established under the Telecommunications Act to ensure certain telecommunications services are available and affordable. There are two current TSO services: the Deaf Relay Service, and a Local Service Obligation regarding the provision of residential telephone services.
Total Service Long-Run Incremental Cost (TSLRIC)	Total Service Long-Run Incremental Cost is a methodology for determining regulated prices, where the prices for a regulated firm's individual services are equal to the incremental cost of providing the given services. The asset base is periodically revalued based on forward-looking replacement cost.
Unbundled Bitstream Access (**UBA**)	UBA is a DSL-enabled service that provides RSPs with a managed broadband bitstream service from an exchange to an end-user, so that the companies do not need to manage their own copper network equipment.
UCLL	Unbundled Copper Local Loop (**UCLL**) is a layer 1 unbundled copper local loop service. It enables access to, and interconnection with, Chorus' copper local loop network. The access seeker can combine the UCLL Service with network transport services and service level functionality to deliver services to end-users.
Unbundling	Unbundling allows an RSP to gain access to a layer 1 service on the UFB or copper network. An RSP typically installs its own layer 2 equipment at the exchange or cabinet, so that the RSP can offer its own broadband service as opposed to using a wholesale service provided by Chorus or the LFC. Developments in technology will potentially provide new forms of unbundling which are not necessarily reliant on physically installing equipment.

Utility-style regulation	Regulatory regimes traditionally developed for utilities such as electricity, gas and water. These regimes usually offer tiers of possible regulation, starting with information disclosure requirements, and then more intrusive forms of regulation such as price-quality control and/or arbitrate/negotiate regulation. Price control in utility-style regulation is usually based on the BBM regime.
Wash up	The equalisation of a position by introducing amounts to offset or compensate for prior gains and losses, or over-spend and under-spend.

Annex 1: Consequential implementation matters

1. Based on the analysis in this RIS, the key aspects of the reform package for the post-2020 fixed line communications framework are:

   - BBM pricing for fibre services from 2020, where:
     - the Commerce Commission decides on the appropriate methodology for RAB valuation;
     - unbundling is consistent with current deeds of undertaking; and
     - anchor products are specified by the Government for the initial regulatory period, and by the Commission thereafter.
   - Copper services in areas with UFB or other fibre available are deregulated from 1 January 2020, and outside these areas regulated copper prices are rolled over at 2019 levels (in nominal terms), with a review in 2023.

2. The following table outlines a number of consequential implementation matters associated with this reform package. These matters are not significant enough to warrant a full analysis in the RIS, but we intend to ensure that they are implemented efficiently and in line with the implementation objectives.

Table 1: Consequential implementation matters for the proposed new regulatory framework for fixed line services

Element	Proposed setting	Comment
Information disclosure	All regulated suppliers will be subject to information disclosure regulation for their fibre services from 2020, based on the approach in Part 4 of the Commerce Act.	The purpose of information disclosure regulation is to ensure that sufficient cost, revenue and other financial information is readily available to interested persons to assess whether regulated suppliers are making excess profits. It is considered a 'baseline' level of regulation in the new framework. It is an important part of this new framework, and will mirror the approach in Part 4 of the Commerce Act.
Input methodologies	The framework will utilise input methodologies based on the approach in Part 4 of the Commerce Act.	The purpose of input methodologies is to promote certainty for suppliers and consumers

		in relation to the rules, requirements, and processes applying within the new regulatory framework. This is consistent with our intention to replicate Part 4 processes where possible.
Categories of services	Adopt two categories for regulatory purposes: 'anchor products' and 'non-anchor products'.	We propose to distinguish between anchor products (required to be offered) and non-anchor products (subject only to some baseline requirements).
Number of RABs	Single RAB for each UFB supplier.	A single RAB for each UFB supplier is most appropriate given the nature of regulated suppliers' fibre businesses.
Scope of the RAB	RAB to include fixed line assets based on a definition of "fixed line access service" (modelled on "electricity lines service" definition in the Commerce Act).	This will set a clear scope for the assets to comprise the RAB, targeted at the assets to deliver UFB services.
Treatment of UFB financial support	Issue to be determined by the Commission, subject to Government guidance.	The Commission is best placed to assess the treatment of UFB financial support, with some guidance from Government on policy outcomes.
Treatment of any UFB initial losses	Issue to be determined by the Commission, subject to Government guidance.	The Commission is best placed to assess the treatment of UFB initial losses, with some guidance from Government on policy outcomes.
Efficiency and prudency of expenditure	Pre-2020 investments must be included in the RAB subject to an efficiency test. Going forward, the Commission will assess major investments for efficiency and prudency on Part 4 basis.	For future investments, the Commission will apply scrutiny to costs in order to promote efficiency and prudency.
Treatment of very expensive UFB installations	'Standard' and 'Non-standard' installation investments will be included in the RAB subject to an efficiency test.	The issue is whether expensive installations should be included in the supplier's RAB. The Commission is best placed to assess the treatment of very expensive UFB installations, with some guidance from Government on policy outcomes.

Pre-approval process for major capex	Mirrors the model for Transpower in Part 4 of the Commerce Act.	This is consistent with our intention to replicate Part 4 processes where possible.
Geographic averaging	All anchor and non-anchor product prices must be geographically averaged within networks.	This is consistent with the existing pricing principles for fixed line telecommunications services, and supports desired policy outcomes.
Copper withdrawal	Chorus will be able to withdraw copper where it has been deregulated, and certain minimum requirements are met. The minimum requirements will be set out in a regulatory code to be implemented by the Commission.	Chorus should be allowed to withdraw its copper network where it is deregulated so long as it meets minimum requirements aimed at protecting consumers.
Unbundled copper (UCLL) regulated service treatment	Copper UCLL to be 'grandfathered' from 2020 (this means that new connections are not required to be provided after 2020).	This is removal of a regulated service that has served its purpose.
Updating anchor product features	Prior to the end of each regulatory period, the Commission will update the specifications, price caps and non-price and quality requirements for the anchor products according to statutory criteria (and informed by input methodologies).	It is appropriate to periodically review anchor product features to keep in step with changes in the market, and the Commission will be in the best position to do this work.
Minimum requirements for non-anchor products	Suppliers must conduct industry consultation, and give 6 months' notice of changes; prices must be geographically averaged; and there must be a commitment to ongoing service development and RSP engagement (including a product 'road map').	These requirements support policy objectives.
Deeds of undertaking for open access	To be retained. A 'carve out' will be needed from 'equivalence of inputs' (**EOI**) obligations for the anchor products.	The deeds provide important protections against discriminatory behaviour by suppliers.
Implementation: Chorus	Chorus to be subject to information disclosure and price-quality regulation from 2020.	There is general agreement that Chorus is not likely to be subject to enough competitive pressure at 2020 to constrain its behaviour. Therefore is it appropriate that Chorus is subject to information disclosure and price-quality regulation from 2020.
Implementation: LFCs	LFCs to be subject only to information disclosure from 2020, but will be subject	In the foreseeable future LFCs are likely to be subject

	from 2020 to an intervention test for the introduction of price-quality regulation.	to sufficient competition from Chorus, and countervailing buying power from RSPs, to constrain their behaviour. Therefore information disclosure is an appropriate starting point for the LFCs, but price-quality regulation can be introduced later if necessary.
Intervention test	Intervention test based on whether intervention would best promote the purpose statement.	This replicates the test for introducing price-quality regulation to consumer-owned electricity lines businesses in Part 4, and is appropriate in this context.
Purpose statement	Modelled on the Part 4 purpose statement in section 52A of the Commerce Act.	A new purpose statement is necessary for the new framework. Modelling this statement on the Part 4 purpose statement is consistent with our intention to replicate Part 4 processes where possible.
Adding and removing suppliers	A Schedule to the Act will list regulated suppliers and the form(s) of regulation they are subject to.	We intend to base this procedure on Part 4 processes where possible.
Framework only to apply to fixed line services	Framework will apply to "fixed line access services" (modelled on "electricity lines service" definition in the Commerce Act).	Fixed line services are the focus of this new system. Other communications services will remain subject to regulation under the existing framework in the Telecommunications Act.
Appeal rights	Mirror the approach in Part 4 (allows for merits appeal on some decisions).	This is consistent with our intention to replicate Part 4 processes where possible.
Backdating and claw-backs	Mirror the approach in Part 4 (mandatory claw-back for some decisions).	This is consistent with our intention to replicate Part 4 processes where possible.
Minimising revenue volatility	Explicit objective in framework of minimising revenue volatility, as well as explicit objective of smoothing any anchor product price increases.	This will promote stability in the new framework and will be important in the transition.