

Regulatory Impact Statement

ULTRA-FAST BROADBAND INITIATIVE: AMENDMENT TO MODEL

AGENCY DISCLOSURE STATEMENT

This Regulatory Impact Statement (**RIS**) has been prepared by the Ministry of Economic Development (**MED**).

It provides an analysis of the specific legislative amendments proposed to address the problem [**section withheld under s9(2)(j) of the Official Information Act 1982**].

MED notes that the Government has not changed its election commitment or its policy to roll-out ultra-fast broadband to 75% of the New Zealand population within 10 years. [**section withheld under s9(2)(j) of the Official Information Act 1982**].

The Government is also committed to selecting a preferred UFB partner in 2010 [**section withheld under s9(2)(g)(i) of the Official Information Act 1982**].

There will be a more complete analysis of the costs and benefits of these proposals once CFH has provided the Government with its recommendation on its preferred commercial partners for the UFB Initiative. At that point, MED will have an overall picture of the commercial and regulatory costs and benefits. At present, MED only has access to the regulatory aspects of that analysis.

The final policy recommendations set out in the Cabinet Paper accompanying this Regulatory Impact Statement (**RIS**) are MED's preferred option. It is the opinion of MED that these final policy recommendations are unlikely to impair private property rights or override fundamental common law principles (as referenced in Chapter 3 of the Legislation Advisory Committee Guidelines). As demonstrated above, these measures will generate, rather than impair, incentives on businesses to innovate and invest, both through the UFB Initiative, and through increased opportunities for innovative retail offerings using UFB infrastructure.

[**section withheld under s9(2)(g)(i) of the Official Information Act 1982**].

The proposals do impose some costs on businesses through the imposition of a new undertakings and information disclosure regime; however these costs are expected to be more than offset by the imposition of a period of regulatory forbearance which will greatly reduce regulatory uncertainty for parties operating, and those purchasing wholesale services of, fibre access networks. This will result in significant costs savings over time in the costs faced by both the industry and the Commission to implement, maintain and vary regulatory obligations and structures.

Consequently, the Ministry views the proposals as consistent with Government commitments on regulatory reform.

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29 July 2010

STATUS QUO AND PROBLEM DEFINITION

Status Quo

- 1 In October 2009, an Invitation to Participate (**ITP**) set out the process, and terms and conditions for the selection of Government partner(s) in the UFB Initiative. In December 2009 a Crown-owned company, Crown Fibre Holdings Limited (**CFH**), was established to manage the selection of partner(s).
- 2 The ITP required bidders to submit proposals for co-investment in, and deployment and operation of, fibre-optic network businesses (called 'local fibre companies' or **LFCs**)¹.
- 3 The ITP Model requires that:
 - a Layer 1 services are mandatory for LFCs to provide; and
 - b LFCs will not be required to offer Layer 2 services, but where they choose to do so, they must offer them on an Equivalence of Inputs basis.
- 4 **Layer 1 services** – Layer 1 services involve providing customers (referred to as access seekers) with access to physical infrastructure such as 'dark' (unlit) fibre so they can create their own network services.
- 5 **Layer 2 services** – Layer 2 services involve 'lighting' the fibre allowing customers to provide end-to-end network services over the physical infrastructure.
- 6 The ITP specifies that open access requirements will be set out in Deeds of Undertaking submitted by LFCs to the Crown, and enforced by the Commission.

June Cabinet Decision

- 7 In June 2010, Cabinet agreed to a number of refinements to the Government policies regarding the regulatory settings that would apply to successful UFB Initiative respondents [CAB MIN (10) 23/10] to meet the Government Objective. The key changes agreed were:
 - a CFH was given approval to seek revised proposals from UFB Initiative respondents on the basis of the following service requirements—
 - i layer 2 fibre access services must be provided by LFCs, including a specified "multi-service provider" open access layer 2 service;
 - ii layer 1 point-to-point fibre access services must be provided by LFCs on a non-discriminatory basis; and
 - iii LFCs will be required to provide unbundled layer 1 services on an equivalent basis by 31 December 2019 at the latest;
 - b the Commission's power to recommend regulation of wholesale FTTH access services would be restricted until 31 December 2019.

¹ The ITP allows either regional or national proposals, so there may be one or many LFCs.

- 8 The June Cabinet paper also gave further details regarding the implementation of an “open access” undertakings regime which was included in the original UFB Invitation to Participate.

Problem definition

- 9 Based on the first round of proposals under the current ITP model, [**section withheld under s9(2)(j) of the Official Information Act 1982**].

OBJECTIVES

- 10 The Government’s UFB Initiative objective (the **Government’s objective**) is as follows (CAB Min (09) 8/9 refers):

To accelerate the roll-out of ultra-fast broadband to 75 percent of New Zealanders over ten years, concentrating in the first six years on priority broadband users such as businesses, schools and health services, plus greenfield developments and certain tranches of residential areas.

- 11 In support of the Government’s objective, the Government has committed up to \$1.35 billion² in co-investment in open-access fibre-optic network infrastructure.
- 12 [**section withheld under s9(2)(g)(i) of the Official Information Act 1982**].

² The Government has committed up to \$1.5 billion in total, with \$150 million having been allocated to making schools ready for ultra-fast broadband. There is \$1.35 billion remaining for ultra-fast broadband network infrastructure.

REGULATORY IMPACT ANALYSIS

CFH's recommended changes to the ITP model

- 13 CFH has developed a package of changes to the model to improve the economics of the fibre rollout, which were in turn refined in consultation with officials. CFH developed the package by carrying out significant analysis of proposals received in the first round of the ITP process including:
- full consideration of respondents' proposals, including expert technical, legal and commercial advice;
 - lengthy discussions with respondents on the parameters and other aspects of their proposals; and
 - cost modelling on the proposals to enable CFH to estimate the level of coverage likely to be achieved under the current proposals.
- 14 A greater degree of certainty over how Government would approach fibre regulation is also proposed.
- 15 This package of proposals is intended to make the UFB model more attractive to potential investors so as to increase the likelihood of achieving the Government's broadband objectives, while at the same time ensuring long-term competitive objectives are met.
- 16 The proposal is that LFCs:
- a *must* offer layer 2 fibre access services; and
 - b *must* also offer certain layer 1 fibre access services.
- 17 The proposed changes also provide for a period during which the LFCs are not subject to the full scope of regulatory oversight, and are not subject to the maximum level of regulatory safeguards. Until 31 December 2019, the LFCs are not:
- subject to the threat of unbundling for a key input service (the "equivalent" layer 1 service);
 - subject to the threat of regulatory price control;
 - obliged to provide services to the "equivalence of inputs" standard.
- 18 The specific legislative amendments to implement these policies are set out in the attached Cabinet Paper (**Cabinet Paper**). The Cabinet Paper describes a package of measures to resolve these policy issues (the **Package**), including:
- establishing a statutory framework for open access undertakings;
 - regulatory forbearance for fibre access networks; and

- targeted information disclosure requirements for fibre access networks.

Options considered

[section withheld under s9(2)(j) of the Official Information Act 1982].

- 19 MED notes that the Government has not changed its election commitment or its policy to roll-out ultra-fast broadband to 75% of the New Zealand population within 10 years. **[section withheld under s9(2)(j) of the Official Information Act 1982].**
- 20 In determining options, MED studied international comparators – that assessment is set out in an appendix to this RIS. Most comparator jurisdictions are yet to experience a significant roll-out of fibre access networks and are still in the early stages of considering the appropriate regulatory environment to apply to these networks. However, two key comparator jurisdictions, the UK and Australia, have adopted approaches that are broadly similar with the approach set out in the Cabinet paper.
- 21 The Government's timelines for the implementation of the UFB Initiative mean that it is not possible to delay the regulatory reforms set out in the Cabinet Paper until a clearer indication of international best practice emerges.

Analysis of the options

CFH Analysis of respondents' proposals

- 22 CFH has carried out significant analysis of proposals received in the first round of the ITP process including:
- full consideration of respondents' proposals, including expert technical, legal and commercial advice;
 - lengthy discussions with respondents on the parameters and other aspects of their proposals; and
 - cost modelling on the proposals to enable CFH to estimate the level of coverage likely to be achieved under the current proposals.
- 23 This analysis has led CFH to recommend the changes set out above to the ITP model.

Assessment of the Package's impact on competitive outcomes

- 24 **[section withheld under s9(2)(g)(i) and s9(2)(j) of the Official Information Act 1982].**

Crown control

- 25 Given CFH's expected take-up of fibre services, the Crown through CFH, will exercise majority control of LFCs through-out most of the forbearance period. This will prevent the private partner from generating super-normal profits during this period. Further, the Crown will have little incentive to generate super-normal

profits itself, as it will not be receiving dividend payments during the forbearance period.

26 **[section withheld under s9(2)(j) of the Official Information Act 1982].**

CFH contracted prices

27 CFH will contractually agree the prices for a range of key Layer 1 and Layer 2 fibre access services provided by LFCs through a competitive tender process. LFCs will be obliged to provide these services until 31 December 2019 on the contracted price and non-price terms.

Open access deeds of undertaking

28 LFCs will be required to submit a deed of undertaking to the Commission setting out the open access arrangements in compliance with which they will provide services during and after the forbearance period.

29 During the forbearance period, LFCs will be required to provide services on a non-discriminatory basis to all Access Seekers who request those services. These obligations will be monitored and enforced by the Commission. The Telecommunications Act will be amended to implement this undertakings regime.

Information disclosure regime

30 The Act will be amended to implement an information disclosure regime to ensure that the Commission has access to relevant information relating to the operation of LFCs.

[section withheld under s9(2)(j) of the Official Information Act 1982].

31 On the other hand, the Package achieves the appropriate balance between:

- the Government's UFB objective, which is: to accelerate the roll-out of ultra-fast broadband to 75% of New Zealanders over ten years, concentrating in the first six years on 'priority users' such as businesses, schools and health services, plus Greenfield developments and certain tranches of residential areas; and
- effective long-term market competition outcomes.

32 MED believes that the Package strikes an appropriate balance.

Analysis of the proposed measures

33 MED has assessed the impact of the proposed measures that make up the Package.

Open Access and Equivalence Undertakings

34 A new undertakings regime is proposed for the Act. **[section withheld under s9(2)(g)(i) of the Official Information Act 1982].**

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

Regulatory impact of the undertakings regime

36 The following regulatory costs are associated with the proposed undertakings regime:

- the Minister of Communications will need to issue a determination;
- parties will need to submit undertakings that comply with this determination; and
- the Commission will need to enforce the undertakings.

37 The costs of preparing the determination will be largely the time of MED officials. This is unlikely to significantly increase MED's costs.

38 There will be significant costs on parties to submit undertakings and comply with the obligations on an ongoing basis. The exact costs are unknown, but are likely to be significantly less than the costs to Telecom of preparing and complying with its Operational Separation Undertakings.

39 **[section withheld under s9(2)(g)(i) of the Official Information Act 1982].**

40 It is important to note that the undertakings regime is not an alternative to otherwise inevitable regulation. On the contrary, as demonstrated, even if forbearance did not apply, the need to regulate UFB businesses during next 10 years is far from certain.

41 The Commission already enforces Telecom's operational separation undertakings and has significant skills and resources in that area. As there will be significant economies of scope with that existing process, the additional costs of enforcing the UFB undertakings should not be significant.

42 MED does not consider that the undertakings regime will have any significant economic costs. In particular, the undertakings regime has been specifically designed to encourage investment. It will allow discrimination under particular circumstances (for example, where it is objectively justifiable, or where it does not harm competition). The Commission would determine whether a particular form or instance of discrimination was permitted on a case-by-case basis. The Commission currently performs this function under Telecom's Operational Separation Undertakings. This flexibility will narrowly limit the regime's potential to hinder innovation.

43 Given this, MED does not consider that the undertakings will lead to any material economic costs.

[section withheld under s9(2)(g)(i) of the Official Information Act 1982].

Information disclosure

Regulatory impact of the information disclosure regime

44 The Cabinet Paper proposes a UFB specific information disclosure regime.

Regulatory impact of the undertakings regime

45 The following costs are associated with the proposed undertakings regime:

- Access Providers will need to capture in their systems the information required and provide it to the Commission and CFH; and
- the Commission will need to collect, collate and analyse the information provided.

46 The costs to Access Providers to capture the information required will depend on the extent they need to re-engineer existing information systems. As LFCs will be new businesses, this cost should be less because they will be able to require the capture of this information during their system development process.

47 MED has not attempted to quantify this cost because to do so would require information that is not available to MED including:

- the cost to LFCs of building (or re-engineering) systems that are capable of capturing the required information; and
- the cost to LFCs of maintaining those systems over time and processing information requests from the Commission.

48 The Commission's costs in collecting, collating and analysing the information provided should not be significant owing to the significant economies of scope with the Commission's other information disclosure regimes.

Conclusion on regulatory impacts of the proposed measures

49 The proposals do impose some costs on businesses through the imposition of a new undertakings and information disclosure regime; however these costs are expected to be more than offset by the imposition of a period of regulatory forbearance which will greatly reduce regulatory uncertainty for parties operating, and those purchasing wholesale services of, fibre access networks. This will result in significant costs savings over time in the costs faced by both the industry and the Commission to implement, maintain and vary regulatory obligations and structures.

50 **[section withheld under s9(2)(j) of the Official Information Act 1982].**

CONSULTATION

51 MED consulted with The Treasury, the Commission, the Department of the Prime Minister and Cabinet and CFH on the recommended amendments.

52 *[section withheld under s9(2)(j) of the Official Information Act 1982].*

RISKS

[section withheld under s9(2)(j) of the Official Information Act 1982].

CONCLUSIONS AND RECOMMENDATIONS

53 *[section withheld under s9(2)(g)(i) of the Official Information Act 1982].*

IMPLEMENTATION

54 In July, CFH issued a request for refined proposals setting out the regulatory framework proposed in this Cabinet Paper. If the recommendations are agreed by Cabinet, MED will commence the preparation of drafting instructions for PCO.

MONITORING, EVALUATION AND REVIEW

55 The Ministry of Economic Development will review the impact of the changes on investment and competition on an ongoing basis. The Ministry also has an oversight role in relation to CFH, and will use that to assess the effectiveness of CFH in constraining the pricing power of the LFCs.

56 The Telecommunications Act will be amended to empower the Commerce Commission to monitor and report on the effectiveness of their role in enforcing non discrimination, and on the implications of the information disclosed by LFCs.

APPENDIX – ASSESSMENT OF INTERNATIONAL COMPARATORS

57 MED has considered international developments in this area. Policy makers around the world are facing similar issues of how to incentivise investment in next generation fibre networks where demand for fibre services is uncertain and regulatory intervention is a possibility. In particular, MED has examined:

- fibre unbundling in the Netherlands;
- the regulatory models proposed for the Australian NBNCo;
- the European Commission’s recent recommendation on Next Generation Access (**NGA**);
- the UK regulator’s (OfCom) recent views on regulating Next Generation Networks; and
- the regulatory approach adopted in Singapore for the formation of its national broadband network.

The Netherlands

58 Reggefiber is obliged to provide non-discriminatory provisioning of fibre local loop unbundling and ancillary co-location and backhaul services. The Dutch regulator has set a tariff ceiling for these services that depends on the actual CAPEX per line in developed areas – the tariffs range from 12 to 17 Euro per line/per month with a 100 Euro installation fee.³ The requirement to unbundle business lines was later suspended following a review by the courts.

NBNCo in Australia

59 The NBN Co has been tasked by the Australian Government with rolling out an ultra-fast broadband network to 90% of Australians. The NBNCo has proposed two basic wholesale fibre bitstream products:

- Local Ethernet bitstream (for most locations); and
- Aggregated Ethernet bitstream (where a number of fibre access nodes need to be combined into one POI to ensure contestable backhaul).

60 NBNCo will need to obtain ACCC approval for its services by submitting a “special access undertaking” (an existing regulatory mechanism) setting out details of its services and those services’ price and non-price terms. The ACCC will be able to accept, or reject and require NBNCo to amend and resubmit, its Undertaking.

61 While focusing on Layer 2 bitstream products, NBNCo has not ruled out the possibility of offering Layer 1 products at a later date.

European Commission Recommendation

62 On 19 June 2010, the Commission released a final recommendation with 18 countries supporting, eight abstaining and Finland voting against. The Recommendation refers to situations in which a National Regulatory Authority

³ Note that the population density in the Netherlands means that these tariffs cannot be meaningfully compared to the New Zealand environment.

(**NRA**) finds that one or more NGA operators has significant market power (**SMP**). Note, this is a draft Recommendation, with a final Recommendation apparently proving difficult to finalise.

- 63 In such circumstances, NRAs should adopt the following general principles:
- mandate access to existing ducts⁴, civil engineering works, and other non-active elements, necessary to support the deployment of competing infrastructure;
 - ensure that Operational and Support Systems support access to such facilities;
 - ensure that sufficient space to allow other operators to make use of those facilities is built into ducts and other non-active elements when they are deployed;
 - price controls on existing ducts and other non-active elements should be based on the costs of an efficient operator;
 - price controls on new ducts and other non-active elements should incorporate a project specific risk premium.
- 64 Specifically, on FTTH Layer 1 access, NRAs should:
- mandate physical access to fibre sub-loops of SMP operators at their concentration points ensuring specific interfaces are available, if required to ensure access;
 - mandate access to dark fibre of SMP operators if access to ducts and other non-active elements is not technically or economically viable.
- 65 Specifically, on FTTH Layer 2 access, NRAs should:
- apply existing wholesale access remedies for FTTN to FTTH networks of SMP operators, reflecting the technological and commercial capabilities of the new infrastructure.
- 66 The Commission recommended that NRAs should be able to mandate alternative access products “which offer the nearest equivalent constituting a substitute to physical unbundling”. However, this should be a temporary measure, to be replaced by physical unbundling as soon as technically and commercially feasible. In any case, equivalence of access and effective competition must be ensured.
- 67 The European Commission recommends that its member countries do not provide periods of regulatory forbearance for next generation access services, including fibre access services. However, in discussions with MED officials, the responsible EC officials have indicated that a key reason for this finding was that almost all of their member states have significant cable networks (with approximately 60% national footprints) that provide a strong existing incentive on operators to roll out competing fibre access networks. This is materially different to the situation in New Zealand where the cable network footprint is about 14% and limited to the Wellington and Christchurch metropolitan areas.

⁴ Duct access is currently mandated in most EU countries.

OfCom in the UK

68 In its March 2010 review of the wholesale local access market, OfCom proposed a number of regulatory remedies for FTTH including:

- *Virtual Unbundled Local Access (VULA)*: OfCom proposed VULA after finding that unbundling of Layer 1 PON was not technically or economically viable at present. VULA would provide access to BT's NGA network (FTTN and FTTH) in a way that is similar to how UCLL provides access to the copper network. However, rather than providing a physical line, VULA would provide a virtual connection that gives Access Seekers a dedicated link to their customers and substantial control – while not entirely clear, VULA appears to have some different characteristics to the Layer 2 products being proposed by CFH; and
- *Physical Infrastructure Access (PIA)*: this new remedy would allow Access Seekers to deploy fibre in the access network using BT's poles and ducts. BT would be required to produce a reference offer for duct access.

69 At this stage, OfCom expects VULA to be the primary focus of NGA competition, to supplement the continuing effective UCLL remedy (on copper) over at least the next four years. OfCom proposes that the prices for UCLL, Sub-loop and PIA (including FTTH PIA) should be related to the cost of providing them. OfCom does not propose setting regulated prices for the products BT provides under its VULA obligation, but would impose a requirement mirroring the definition of EOI in the BT Undertakings.

Singapore national broadband network

70 Singapore's NBN has been structurally separated into Layer 1 and Layer 2 companies. Layer 1 of Singapore's NBN will be deployed by a "NetCo" and Layer 2 by an "OpCo". Opennet was appointed as NetCo and given US\$1 billion to deploy the passive infrastructure. Starhub was appointed to design and build the OpCo (receiving a state subsidy of US\$250 million)– it will provide wholesale broadband connectivity to downstream operators such as retail service providers.

71 Under their respective Facilities Based Operator Licences, NetCo and OpCo must offer certain mandated Services to Qualifying Persons on the terms of an Interconnection Offer. For NetCo the mandated services are a series of Layer 1 connection, co-location, interconnection and OSS/BSS services. These services are available to all Facilities Based Operators (of which the OpCo is one).

72 For OpCo the mandated services are:

- Aggregation Ethernet Virtual Connection with 4 classes of service, from "real time" to "best efforts"; and
- Provider Backbone Ethernet Virtual Connection with 4 classes of service, from "real time" to "best efforts".

Conclusion on international comparators

- 73 OfCom's approach in the UK is broadly consistent with the recommendations of the Cabinet Paper with a focus on a quality layer 2 service, making it clear that future unbundling will be implemented but agreeing that this should only happen when it makes sense technically and economically. Although, OfCom has also focused on access to poles and ducts, which is not recommended in New Zealand.
- 74 The approach being taken in Australia is also largely consistent with the recommendation in the Cabinet Paper. The NBN is being built with a focus on virtual unbundled layer 2 services. As in New Zealand, NBNCo has not ruled out offering Layer 1 services in the future.
- 75 Some other jurisdictions have taken different approaches, focusing on Layer 1 competition. The exact arrangements being made to incentivise the roll-out of fibre networks seem to vary between jurisdictions depending on local factors, such as the extent of direct Government involvement and the extent of existing infrastructure competition to drive fibre investment. Some jurisdictions, like Australia and the UK, are adopting approaches similar to the approach proposed in the Cabinet Paper and ITP; others have taken somewhat different approaches.