

# **Submission**

By



to

**Ministry of Economic Development**

on

**Broadband Investment Initiative**

**27 April 2009**

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**BROADBAND INVESTMENT INITIATIVE  
SUBMISSION BY BUSINESS NEW ZEALAND<sup>1</sup>  
27 APRIL 2009**

**1. INTRODUCTION**

- 1.1 Business New Zealand welcomes the opportunity to comment on the Ministry of Economic Development's (MED) Broadband Investment Initiative Draft Proposal Paper (referred to in this submission as the 'Paper').

**2. SUMMARY OF RECOMMENDATIONS**

- 2.1 Overall, Business New Zealand makes the following recommendations:
- a) The Government examines how costs per premise for connectability of fibre to the home could be reduced (p.4);
  - b) The Government takes into account residential areas where significant business activity also takes place (p.5);
  - c) The potential for real speeds in excess of 100Mbps are taken into account by the Government to ensure New Zealand keeps pace with world trends (p.5);
  - d) The Government provides greater clarity in relation to its expectations concerning the geographic boundaries of all identified regions (p.8);
  - e) The Government takes into account more than just the general population when determining the top 25 regions (p.9);
  - f) The Government only looks to finalise and deploy funding solutions for the remaining 25% of the general population until at least the proposals have been received and approved (p.9);
  - g) That issues relating to quantity and quality of local fibre companies boards are taken into account during the consultation process (p.10);
  - h) The Government provides greater detail relating to how local fibre companies will work/co-ordinate on common issues that have a national focus/theme (p.10); and
  - i) The Government provides greater clarity regarding issues involving prioritisation of types of cable deployment, along with general maintenance/fault issues (p.11).

**3. BACKGROUND**

- 3.1 We note that the Government's goal for broadband investment is to *accelerate the roll-out of ultra-fast broadband to 75% of New Zealanders*. This is a laudable objective, as Business New Zealand has consistently

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<sup>1</sup> Background information on Business New Zealand is attached in the appendix.

expressed the view that there is the potential for significant productivity gains for business by way of making ultra-fast broadband more accessible to New Zealanders.

- 3.2 As is often the case with such objectives, the devil will be in the detail in terms of a successful outcome. While incumbent telecommunications businesses will no doubt raise technical issues with the proposal and how they need to be worked through, our submission will instead focus on some of the broader impacts on all business, including an examination of business demographic issues, boundary definitions, compliance and prioritisation for groups. However, the first issue we wish to raise involves the economic environment in which this policy will be introduced.

#### **4. FISCAL COST**

- 4.1 The Government has stated that it will invest up to \$1.5 billion alongside additional private sector investment for the provision of broadband services in New Zealand. This objective follows on from an initial election pledge in 2008.
- 4.2 Since the general election, it is widely known that economic conditions have continued to significantly deteriorate (both offshore and domestically). Forecasts also suggest the Government will incur deficits for some years to come. This will undoubtedly put pressure on the Government in terms of reigning in spending (which for years was largely unchecked), as well as choosing fiscal expenditure that will best enhance economic growth. Therefore, the contribution of \$1.5b by the Government towards this initiative should be based on a high degree of certainty that the net public benefit to the country will be significant in comparison with other fiscal options. For the broadband initiative in question, there appears to be some debate regarding the extent of the net benefit.

#### *Net Benefits*

- 4.3 The Government has previously stated that independent experts estimate the benefits of fibre to the home (FTTH) to 75% of New Zealanders will be worth between \$2.4 billion and \$4.4 billion a year, which even taking into account the contribution from the private sector would appear to represent a significant return to the country over time. However, other studies undertaken by incumbent telecommunications players show any benefits for the economy to be negligible at best. Obviously, such extreme views either way via independent analysis makes things difficult in terms of trying to establish whether the investment by the Government will provide a better return than alternatives on infrastructure spending, such as roading.
- 4.4 Business New Zealand is simply not in a position to make a definitive call either way about the extent, or likelihood of, net benefits that are likely to come out of this initiative. However, we would take the view that there will certainly be some strong economic benefits, which most probably occur within the business sector. Whether significant benefits will stretch to the entire

business community and an overwhelming proportion of the residential community may remain an unanswerable question at this point in time.

- 4.5 If we were to also take into account offshore developments in this space (especially regarding recent announcements in Australia) initiatives like the one announced will most likely ensure New Zealand remains relatively close to the paths other countries have or are taking concerning broadband. Therefore, on balance, Business New Zealand supports the Government taking steps in terms of ultra-fast broadband being available in New Zealand. However, we believe the current initiative creates as many questions as answers, and we suspect there may be a large and often complicated set of issues to work through before the initiative is able to proceed.

#### *Total Infrastructure Cost*

- 4.6 Despite questions marks surrounding the net economic benefits/costs to the country associated with the initiative, it is relatively easier, although still difficult, to try and establish the costs associated with the total infrastructure spend that would need to take place to provide FTTH to the majority of the general population.
- 4.7 In terms of total cost, the Paper states that roll-out of FTTH to 75% of the population would cost in the order of \$3-\$6 billion. Of the \$1.5b allocated over six years, the Government has made a commitment that \$150 million of it will be spent on making schools broadband-ready. Approximately \$48 million has also been earmarked for rural broadband, although this is on top of, rather than inclusive of, the initial \$1.5b stated. Therefore, this leaves approximately \$1.35b to use as the Government's contribution. Based on these numbers, the Government would be looking to contribute approximately 22.5% to 45% of the overall cost.
- 4.8 However, we note the views expressed in the *Fibre-to-the-Premise Cost Study* prepared by The Treasury in February, which examined the total investment required (i.e. that includes not only the contribution by the Government and private sector providers, but also the consumer). The economic modelling used in the study showed that the total investment required for connection of urban New Zealand premises with a take-up of 50% within the coverage area can be expected to lie in the range of \$3.5b to \$5.5b. For a 100% take-up, the total investment required increases to a range of \$5b to \$7.5b. This is because costs of actually connecting a single premise from the dark fibre to the house or business are relatively significant, and increase the lower the uptake rate.
- 4.9 While the paper provides for various uptake rates, as well as deployment options, all possible scenarios have the figures starting from roughly \$2,000 onwards that consumers would most likely have to pay to be connected. There is every likelihood (especially given current economic conditions) that such costs – which under low take-up options gets closer to \$10,000 – would simply not be a serious option to consider. Therefore, there is a possibility that if you build it, many may not come. We believe the issue of connection to

the premise needs further investigation by the Government, with a view towards how the associated costs could be reduced.

***Recommendation: That the Government examines how the costs per premises for connectability of fibre to the home could be reduced.***

## **5. PRINCIPLES & PRIORITY USERS**

### *Principles*

- 5.1 Business New Zealand agrees with the six key principles outlined in the paper. The first one outlined in the Paper (*making a significant contribution to economic growth*), is the most important from our point of view. Almost all policies by Government need to take this core principle into account when developing policy, especially given New Zealand's traditionally poor record in terms of economic growth in comparison with other countries.
- 5.2 Of the other key principles, *neither discouraging, nor substituting for, private sector investment* and *avoiding excessive infrastructure duplication* both relate to issues involved in a sector that has generally experienced shocks in terms of property rights and investment over recent years. This initiative will undoubtedly provide another significant turning point for existing players, so we are conscious of ensuring policies going forward help, rather than hinder, the sector in terms of its growth.

### *Priority Users*

- 5.3 The Paper outlines what are referred to as priority users, typically those groups that the Government has identified as being first to receive the fibre-optic technology. These are:
  - Businesses;
  - Schools;
  - Health Services;
  - Green field developments; and
  - Certain tranches of residential areas.
- 5.4 Business New Zealand strongly agrees with the Government including businesses as a priority group. It has generally been found that business tends to be the front runner in terms of technology use, with the ability to push the boundaries of new applications.
- 5.5 The appendix of the Paper provides a useful summary of the potential benefits of FTTH deployment, particularly in relation to the benefits for business. We agree that the infrastructure upgrade will allow certain businesses to harness particular technological usage such as high definition video links and synchronous transfer of large amounts of data for multiple applications and users. Therefore, it will enable significant business productivity improvements, particularly for ICT-dependent businesses.

- 5.6 The appendix also outlines the status quo option where high downstream broadband speed purchased is typically by business, with only SMEs and residential (high users) purchasing similar speeds of 10-20 Mbps. Purchases of more than 50 Mbps are likely to be by large businesses, so the option of FTTH where speeds greater than 100 Mbps would most likely be dominated by business in the short term, and perhaps looking out to the medium term also.
- 5.7 While we agree that residential areas should not be considered as an initial priority, there are pockets of the residential community where there is still a significant business connection. As the paper outlines, this can come in two forms. First, home-based businesses where the need for commercial offices/retail space is not required. Second, increased flexibility regarding employees working at home given flexible workplace practices or simply not requiring them to have a workplace to go to in the traditional sense. These two factors create the potential for 'pockets' of residential areas where significant business related activity can take place. In addition, there can be instances where smaller business zones may lie within a larger residential area. These could be industry related, or just a common factor that tends to occur in that area. Therefore, we believe the Government should take into account those residential areas where significant business activity also takes place when developing the broadband initiative further.

***Recommendation: That the Government takes into account residential areas where significant business activity also takes place.***

- 5.8 In addition to the points raised above about downstream broadband speeds, while the FTTH option states speeds greater than 100 Mbps, we question whether discussing speeds around this level for the next ten years may be low compared with world trends (i.e. countries such as Korea and Sweden installing speeds up to 1Gbps). In addition, while web 1 and 2 are mentioned in the Paper, worldwide discussion is now moving to web 3, which incorporates interactive multiple streaming of conferences/seminars with visual materials and HD visual content (not to mention the possibility of 3D visual delivery systems being developed and trialled). These are certainly options that would appeal to many in the broader business community.
- 5.9 Obviously, the backbone network will often dictate actual, as opposed to supposed, speeds. However, a view by Government that meant delivery of real speeds and minimums of 100mbps in the allocated timeframes with options far higher as and when required would help future-proof New Zealand with the rest of the world.

***Recommendation: That the potential for real speeds in excess of 100Mbps are taken into account by the Government to ensure New Zealand keeps pace with world trends.***

## **6. CLASSIFICATION OF REGIONS, CITIES AND TOWNS**

- 6.1 The Paper states that the initial Request for Proposals (RFP) is in relation to each of the *regions* making up 75% of the general population. These regions

have been based on the ranking of the population of the largest cities and towns in New Zealand as at the 2006 Census. While we support the idea of basing the identification of 75% of the population on some form of official statistic, any relatively simple measure can also lead to some immediate problems that will have to be worked through.

- 6.2 First, some further analysis of the top 25 regions is required. Table 1 reproduces the table on page 23 of the Paper, along with a comparison with the business population and employee count<sup>2</sup>. As the table shows, 75% of the population are within these regions, while an almost identical proportion of businesses (74.7%) are also within these regions. The proportion of employees stands at a higher value of 84.5%. It should not be a surprise that the business population and employee count at least match, or are greater than, the general population proportions given most businesses are concentrated in urban areas. However, it is pleasing to see that the areas identified include roughly three out of every four businesses, and eight-nine out of every ten employees.
- 6.3 Looking at the table in greater detail, the main centres of Auckland, Wellington and Christchurch make up close to half the total general and business populations. If we confine the population to just the 25 regions, the largest three would make up 63% and 65% of the general and business populations respectively. On the flip side, the 'bottom' 15 regions contribute only 15% and 12% of the total general and business population respectively.
- 6.4 An additional measure by which to examine linkages between the general population, the business population and employee count are by ratios. Therefore, the last two columns in table 1 provide the number of people per individual business, as well as the number of people per person employed. While the overall total shows 8.9 people per business and 1.9 people per employee, the table produces some significant variations from these averages.
- 6.5 For instance, Tokoroa, which has the second smallest general population of all the regions, also has the smallest number of businesses in operation. When looking at the number of people per business, the table shows it is a clear outlier with 44.2 people per individual business. Similarly, New Plymouth/Hawera has 29.3 people per individual business.
- 6.6 Overall, what table 1 tells us is that no matter how the numbers are presented, there is undoubtedly a lumpy distribution across the 25 regions. Therefore, this may also mean a lumpy outcome when it comes to private sector partnership shareholders. While the goal is to achieve 75% coverage for FTTH, in reality the private sector may only be willing to become involved in say regions with 100,000 persons to achieve critical mass. This could raise questions regarding to what extent should the Government look to provide further funding and/or policies for the remaining regions if take-up of RFPs are low or non-existent for certain regions.

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<sup>2</sup> Statistics New Zealand Business Demography data, tablebuilder.

**Table 1: Population, Business Population and Employee Count for 25 Regions**

Region	Population	% of population	Business Population	% of Business Population	Employee Count Population	% of Employee Count Population	Ratio of Population to Business Population	Ratio of Population to Employee Count
Auckland	1,230,606	29.5	159403	31.4	644920	32.8	7.7	1.9
Christchurch	360,768	8.7	37643	7.4	194180	9.9	9.6	1.9
Wellington	360,627	8.7	51522	10.1	242710	12.3	7.0	1.5
Hamilton Zone	155,262	3.7	13211	2.6	77510	3.9	11.8	2.0
Napier & Hastings	118,404	2.9	15032	3.0	67350	3.4	7.9	1.8
Dunedin	110,997	2.7	10794	2.1	57780	2.9	10.3	1.9
Tauranga	108,882	2.6	13594	2.7	51180	2.6	8.0	2.1
Palmerston North & Feilding	89,922	2.2	8415	1.7	49750	2.5	10.7	1.8
New Plymouth & Hawera	60,057	1.5	2049	0.4	14260	0.7	29.3	4.2
Kapiti & Levin	56,571	1.4	5851	1.2	17340	0.9	9.7	3.3
Nelson	56,364	1.4	5550	1.1	25460	1.3	10.2	2.2
Rotorua	53,766	1.3	7351	1.4	30730	1.6	7.3	1.7
Whangarei	49,080	1.2	9524	1.9	31260	1.6	5.2	1.6
Invercargill	46,773	1.1	4803	0.9	26090	1.3	9.7	1.8
Wanganui	38,988	0.9	4144	0.8	18360	0.9	9.4	2.1
Gisborne	32,529	0.8	5021	1.0	20940	1.1	6.5	1.6
Cambridge & Te Awamutu	29,646	0.7	2122	0.4	8360	0.4	14.0	3.5
Blenheim	28,527	0.7	1007	0.2	6120	0.3	28.3	4.7
Timaru	26,886	0.6	5260	1.0	20810	1.1	5.1	1.3
Taupo	21,291	0.5	4559	0.9	14940	0.8	4.7	1.4
Masterton	19,494	0.5	2962	0.6	10600	0.5	6.6	1.8
Whakatane	18,204	0.4	3980	0.8	12620	0.6	4.6	1.4
Ashburton	16,836	0.4	4641	0.9	14120	0.7	3.6	1.2
Tokoroa	13,530	0.3	306	0.1	2030	0.1	44.2	6.7
Oamaru	12,681	0.3	827	0.2	4160	0.2	15.3	3.0
<b>TOTAL</b>	<b>3,116,601</b>	<b>75.0</b>	<b>379571</b>	<b>74.7</b>	<b>1663580</b>	<b>84.5</b>	<b>8.2</b>	<b>1.9</b>

6.7 We note that the Paper outlines seven main risks in terms of the initiative not proceeding. We believe both (a) and (g)<sup>3</sup> are certainly significant potential risks as discussed above. Therefore, the Government needs to think more about what constitutes the make-up of the 75% population, and whether for the short-term at least, expectations need to be scaled back.

<sup>3</sup> (a) There could be insufficient viable proposals, because the crown offer is not sufficiently attractive and (g) the proposed funding could be insufficient to meet the coverage target, and that there is pressure for the government to increase its contribution.



### *Boundary Settings*

6.8 Business New Zealand supports the stance taken by the Government in terms of flexibility when it comes to defining and provision to other regions or more than 75% of New Zealand's population. However, we also take the view that the Government will need to provide a greater steer on exactly where the boundaries of some of these regions lie, as well as the make-up of these regions, given the following issues raised.

### *Gaps between Regions*

6.9 First, some regions will be more clear-cut in terms of their geographic spread (such as Auckland and Wellington), while others will have surrounding semi-urban areas that leads to questions as to whether they should be included.

6.10 For instance, one region (as defined in the Paper) identified is Palmerston North and Feilding. These are approximately 20kms apart with largely rural land separating the two. However, directly between these two urban areas along one of the main roads is Bunnythorpe, which is a very small outlying town. When proposals for Palmerston North & Feilding are put forward, would there be an expectation from Government that they should also include Bunnythorpe? Therefore, should the coverage area for an RFP typically include the gap between the two population areas? The same issues exist with Napier & Hastings, New Plymouth & Hawera, and Cambridge & Te Awamutu. We believe further inclusion and exclusion issues will most likely be raised during the consultation period. Therefore, we believe greater clarity is required.

***Recommendation: That the Government provides greater clarity in relation to its expectations concerning the geographic boundaries of all identified regions.***

### *High Population Growth Regions*

6.11 Second, boundary issues will also become relevant with high growth regions, where a lack of in-fill housing or relatively cheap land creates considerable urban sprawl. For instance, between 2001 and 2006 Tauranga was the fastest growing city in New Zealand. Its suburbs are growing at such a pace that one in particular – Papamoa - has experienced development over the last 10 years to a point that it is likely to become a city in itself by 2020. This could mean that the proposals may need to take into account for, or adjust to, the rapid changes in the demographics of certain regions.

### *High Economic Growth Regions*

6.12 Third, while Tauranga is included within the top 25 regions, there are other regions which may represent greater ability for uptake, as well as stronger opportunities for ongoing economic growth. For instance, Queenstown and Wanaka were not included in the top 25 regions due to their small population size (approximately 11,500 and 6,200 respectively). However, as a major

tourist destination, tourists on average spend around \$795m annually in the Queenstown region. Therefore, the ranking of regions by economic contribution or growth for the top 25 regions may be quite different in comparison to just an examination of the general population.

- 6.13 Overall, these issues highlight the need for consideration by Government in terms of the final make-up of the regions, whether this involves substituting one region for another based on economic settings, or looking to change the composition of the regions by way of boundary settings.

***Recommendation: That the Government takes into account more than just the general population when determining the top 25 regions.***

- 6.14 In relation to the points raised in the section above, paragraph 22 of the Paper states that areas outside the 75% coverage area for the Government objective will be addressed pursuant to a separate process which may be associated with the review of the Telecommunications Service Obligations. The paragraph also mentions that the Government is actively developing funding solutions for improved broadband service delivery in areas not directly addressed in this initiative. However, this may prove to be in conflict with what comes out of the proposals put forward. The Q&A section of the Paper notes the flexibility allowed with proposals, namely that they need not be limited to the 75% coverage area nor the specified geographic location. In addition, the Government is open to a different combination of regions provided they meet the relevant criteria.

- 6.15 As stated above, Business New Zealand supports the stance taken by the Government, in terms of flexibility when it comes to defining and provision to other regions or more than 75% of New Zealand's population. However, there is a chance that the Government may be jumping the gun if the RFP process includes proposals incorporating more than 75% of the general population in total, or an alternative make-up of the 75%. Therefore, we believe the Government should not develop any concrete funding solutions for the remaining 25% of the general population until such time as proposals as part of the RFP process have been received and approved.

***Recommendation: That the Government only looks to finalise and deploy funding solutions for the remaining 25% of the general population until at least the proposals have been received and approved.***

## **7. COMPLIANCE & COMMUNICATION BETWEEN REGIONS**

- 7.1 Business New Zealand believes there will also be certain procedural, compliance and communications issues that will need to be worked through to reach a successful outcome for the initiative.

### *Quantity & Quality of Regional Board Members*

- 7.2 A major element of the initiative is the establishment of the Local Fibre Companies (LFCs). While the Paper provides some detail in terms of the structure of the LFCs, there are still some questions that need to be raised.

- 7.3 When looking at the structure of the LFCs, there is the potential for 25 separate companies to be formed. However, we acknowledge that in paragraph 8 of the Paper it notes that aggregated proposals covering any number or combination of regions will be allowed, so that LFCs may be formed on a smaller number of regions.
- 7.4 On balance, the prospect of 25 separate LFCs being formed for the population of New Zealand does seem compliance heavy. Also, a high number of boards may lead to a lack of finding appropriate numbers of people with specified skills in the telecommunications industry to sit on the boards. While the final number of the LFCs may alleviate some of these concerns, we still believe that potentially adverse issues relating to quantity and quality of boards should be taken into account going forward.

***Recommendation: That issues relating to quantity and quality of local fibre companies boards are taken into account during the consultation period.***

#### *Communication/Responsibility between Boards*

- 7.5 There seems to be little discussion in the Paper concerning how the LFCs will work/co-ordinate with each other on common issues, particularly involving national deployment. While there is the ability for focussing on regional issues and requirements, there is the potential for differing views and cost structures across each LFC. For instance, any business wanting to deploy a service nationwide might find differing protocols and timeframes, not to mention issues regarding who would pick up what cost when there are connections cross boundaries. We believe further guidance from the Government concerning these issues would be useful.

***Recommendation: That the Government provides greater detail relating to how local fibre companies will work/co-ordinate on common issues that have a national focus/theme.***

#### *Cabling – Deployment, Maintenance and Fault Issues*

- 7.6 Paragraphs 97 and 98 in the Paper briefly discuss issues relating to environmental and access issues. More specifically, a range of Government departments will be looking at how best to facilitate access to and use of, a range of existing infrastructure both above and below ground in terms of future fibre deployment.
- 7.7 The Government will need to be very conscious of previous issues relating to cable deployment, given often strong opposition by local groups in relation to overhead cables (i.e. visual pollution). While it is useful for various options for deployment to be examined, some form of prioritisation should be seriously considered with future regulation concerning the initiative, given the standards and guidelines that will need to be referred to when building the relevant infrastructure.

7.8 The paper also omits issues relating to maintenance and faults. Typically, these issues occur when a cable (whether it be overhead or ducted) breaks due to an accident. While proposals put forward may provide some clarity on who is responsible for maintenance issues and 'who pays', again some initial guidance/views from the Government need to be outlined.

***Recommendation: That the Government provides greater clarity regarding issues involving prioritisation of types of cable deployment, along with general maintenance/fault issues.***

## **APPENDIX**

### **8. Background Information on Business New Zealand**

- 8.1 Business New Zealand is New Zealand's largest business advocacy organisation.
- 8.2 Through its four founding member organisations – EMA Northern, EMA Central, Canterbury Employers' Chamber of Commerce and the Otago-Southland Employers' Association – and 69 affiliated trade and industry associations, Business NZ represents the views of over 76,000 employers and businesses, ranging from the smallest to the largest and reflecting the make-up of the New Zealand economy.
- 8.3 In addition to advocacy on behalf of enterprise, Business NZ contributes to Governmental and tripartite working parties and international bodies including the International Labour Organisation, the International Organisation of Employers and the Business and Industry Advisory Council to the Organisation for Economic Cooperation and Development.