

Script – Philippa Bowron

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1. Good afternoon, my name is Philippa Bowron; I am Government Relations Manager at BCL. My presentation is about alternative technologies and their relevance to this investigation.

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2. The advantages to consumers of specific technology deployments cannot be assessed strictly on their status at a single point in time, given a competition assessment of a five-year forward looking approach.
3. While alternative technologies are providing benefits to consumers now – it is difficult to imagine that this will not significantly increase both in the short and long term given the advances in technology and the deployments internationally.
4. Benefits are expected both in increased functionality and price reduction.

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5. BCL's wireless network is of significant importance to broadband development in New Zealand and delivers benefits that cannot be delivered with any form of unbundling.
6. The most important and immediate benefit is the provision of broadband services to areas of New Zealand that are not currently able to access broadband services and further those areas that are not likely to be able to access them in the foreseeable future.
7. The potential of the PDN definition to include BCL's network services will be discussed by Michael Jamieson in his presentation, but our concern is that that could ultimately see BCL pull back from the telecommunications market and therefore consign end users in rural areas to copper dial-up services.

8. We cannot see that this has been taken into account in the draft report or the Cost Benefit Analysis.
9. The fact is that BCL's wireless network EXTEND, has just been completed and launched. A further fact is that BCL has advanced plans to extend this network.
10. Woosh Wireless has a network that is operational in Auckland and Southland. They have advanced plans to extend this.
11. Counties Power or Wired Country has a wireless and fibre network. It is operational in South Auckland and they have indicated they may extend this.
12. Given that these factors exist, along with the announced project PROBE regions, we submit that the existence of wireless networks and their impact on the telecommunications market is not minimal as indicated in the draft report.
13. These considerable investments would not have been made unless the investors (including the NZ government in the case of PROBE) determined that they present long term benefit to end-users.
14. We have indicated that Susie Stone would be addressing issues from other submissions in her presentation. However there is really one key point we would like to address which fits with this part of my presentation, so if it is alright with the Commission I would like to take a moment to discuss the SCHEMA Report submitted as Appendix 4 of TelstraClear's submission as it specifically addresses Wireless Access and some key points around the presentation this morning.
15. My main concern and comment on the SCHEMA report is the focus. The Summary Reads "Fixed Wireless Access technologies present a useful alternative to wireline access mechanisms in a number of situations. However, they will not provide the ubiquity of infrastructure competition for sound technical and financial reasons."
16. The key here is the phrase 'ubiquity of infrastructure' and the reports focus on this. It is our opinion that ubiquity of infrastructure is not required to present competition and constraint, and in fact Telecom's copper network is not currently ubiquitous in terms of broadband provision.
17. Further the report's assessments have ignored the impact of cellular

data and DTT which are not FWA, but are relevant in the same way as fibre is – which they have included in the assessment. For example delivery of TV has been considered using fibre in wireline but not broadcast technologies in wireless.

18. I'd like to examine the responses to questions around NLOS technologies and mobility differentiation that were given in this morning's presentation.
19. In answering a question on the age of technology assessed in the report and the functionality factor of these technologies, Mr Blades pointed to the limitations of ISM band technology due to raised noise floor and the limit of number of customers He talked about 2.4G products.
20. The report and presentation ignores the non LOS technologies available today. (These are available from SR Telecom, Navini, Alvarion, Redline et al). They are working up to 7 KM NLOS.
21. In fact we understand that TelstraClear is deploying the Alvarion OFDM NLOS product and Unwired in Australia are deploying the Navini NLOS product.
22. As an aside we note that this afternoon the Australian Stock Exchange has announced that Breathe Group Ltd has proposed acquisition of Unwired Australia PTY.
23. The release state that Unwires intend to establish a fixed wireless access network in most major urban and regional centres across Australia. I also states its intention to become an alternative to Telstra as a local loop provider.
24. Breathe goes on to announce a share issue to raise capital of 100M AUD. Of this the company has already obtained commitment from institutional investors in excess of \$90M.
25. Non line of sight technologies can be deployed in licensed band – not just ISM band. Their deployment in licensed band greatly improves service delivery and reliability. They offer Non line of site, unlike our rural product which is fixed wireless or Woosh's product which we understand to be near line of sight.
26. Non-line of site products penetrate buildings, tree lines and effectively bounce around obstructions. We have seen this demonstrated in Paris up to 7kms non line of sight.
27. When asked about portable functionality by Commissioner Webb, Mr Blades referred to PCN's spectacular failure and went on to describe the limitations of its phone box type offering. This is not comparable

with portability as offered by Woosh and enabled by newer portable products. The key difference is that a user now does not have to go to a designated point to access the network.

28. The report produces case studies but ignores the more successful deployments such as Central and South America, Africa and Eastern Europe.
29. Finally the report is surprising given the following excerpt from SCHEMA's web site:

“The ubiquity of the incumbents networks led many to hope that the LLU would finally deliver competition to rural communities that had always been overlooked by service providers in favour of major cities. However the constraints of local loop length and low population densities outside major conurbations mean that a substantial proportion of the population is served by telephone exchanges that are too small to be economically viable. As a result, regulators, development authorities and service providers have taken renewed interest in wireless technologies such as wireless LAN's, fixed wireless access and mesh technologies as alternative or complimentary technologies to LLU for the Local Loop.”
30. While these comments are largely line with the comments made this morning by Mr Blades, they do give more consideration to wireless as alternative as well as a complimentary product.
31. On a slightly more general point – in the same section on their website, SCHEMA note that “LLU has not been as successful as hoped and only a tiny proportion of the EU's 195 million telephone lines have been unbundled.”
32. Just one further comment on wireless application in the New Zealand environment. We'd like to point out that as well as spectrum being cheaper in New Zealand, we have a distinct advantage with utilisation of spectrum in wireless deployment due to our low population density and total.

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33. The failure to recognise Mobile Voice and data in the market definitions, fails to recognise the changes in the telecommunications market over the last five years and reflect that speed of change forward.

34. Cellular voice is rapidly becoming competitive with fixed line. Vodafone's stated intention in New Zealand is to replace the fixed line. Overseas where free local calling does not exist this is becoming a consumer choice. Further the Commission's inclusion in its recommendation of new technologies, means that it can't in all fairness restrict its market definitions and competition analysis to the extent that it does not consider cellular within the five year term, given the impending rollout of 3G networks by Telstra Clear, Telecom and Vodafone. 3G provides data speeds of 386kbps to 2Mbps to the customer. This is live now in a number of countries around the world.
35. Data over cellular is happening and it is enabling consumers to access high speed and broadband services now. Add to this the progress in content compression techniques which have been startling over the last few years and this technology deserves consideration within the Commission's market definitions, if they wish to fully assess competition of broadband services to consumers.
36. Announcements in the last few months from both NEC and Nokia about 3G cellular phones that also receive DTT show the flexibility of this technology to adapt and combine with other wireless technologies to deliver services that fixed wire cannot – mobile triple play.
37. Other examples are combinations of cellular and FM radio and cellular and wireless LAN hotspots.

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38. Satellite technology again has to be considered to some degree at least. Ericson has recently announced a partnership with IPSTAR to deliver VSAT into New Zealand.
39. Our understanding is that IPSTAR is a new generation of satellite that has intelligence at the transponder level as opposed to the traditional approach of having dumb transponders and intelligent hubs.

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40. Wireless technologies are likely to have significant impact on the telecommunications market in the next five years. Particularly giving recognition to the total view of radio based technologies that will continue to increase and develop over the next five years.
41. These technologies cannot be viewed in isolation if the Commission truly wishes to have a correct five year forward looking approach, as they can interoperate across services and markets to provide consumers with choice and benefits similar to and in many cases superior to wireline, given the ease of portability and mobility.

42. The counterfactual adopted for the purpose of the draft report would be more realistic if these technologies and their benefit to end-users were to be recognised.

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43. While we are not economists and do not have the expertise to engage in detailed economic debate. We would like to comment that the situation in New Zealand with respect to the counterfactual is different to other countries that have been regulated largely due to timing.

44. We believe that the benefits of progression in the New Zealand telecommunications market, both in investment and technology developments should be considered in the counterfactual.

45. We also believe that the reduction of benefits through investment and technology differentiation should be considered in the factual.