



Alison Kelly
Committee Secretary
Senate Select Committee on the National Broadband Network
broadband.sen@aph.gov.au

27 June 2009

Dear Alison,

Thank you for your invitation to make a submission to the Senate Select Committee on the National Broadband Network.

I am an Australian-born graduate electronics engineer working as a consultant in the field of FTTH in both Australia and New Zealand.

I have designed and implemented FTTH networks in New Zealand and my current clients include Telecom New Zealand, School of Physics (Photonics) Auckland University, AUSTAR and Ausoptic in Australia as well as property and estate developers.

I have close technical relationships with companies such as Alcatel-Lucent, Allied Telesis, Bktel (Germany), ADC Krone, Foxcom etc.

Over the last three years I have undertaken several training courses in the USA and Germany and have attended major FTTH conferences and exhibitions around the world. My company is a member of the FTTH Council USA and I am well known to the FTTH Council Asia-Pacific.

Valuable work and research projects have been undertaken in collaboration with Prof. John Harvey at Auckland University. They have the only photonics research facility in New Zealand.

Although I am totally familiar with the various standards and topologies of FTTH, I have more recently delved into the area of broadcasting radio and television programs over FTTH networks.

This is an area not well understood by the IP-centric school, as it involves RF (Radio Frequency) techniques that are often foreign to I.T. Engineers.

DTH (Direct to home) Satellite TV broadcasting is extremely popular in both Australia and New Zealand, alongside the "free to air" television broadcasts.

Multiple satellite antennas are either banned, discouraged or not practical in many buildings and housing estates. The signals are best delivered over the same FTTH fibre that delivers voice and data.

It is a challenge to distribute satellite multi-polarity L-band signals over FTTH.

Very broadband RF Overlay at the 1550 nm carrier frequency is an excellent option compared to IPTV.

A good explanation of this work can be found on my website (www.onefibre.com) under "4-SAT System".

I would be extremely pleased to assist your committee in any area of my experience and expertise.

My time is spent between Australia and New Zealand and I have a home on the Gold Coast in Queensland. I will be based at that address all of July should you wish to pursue this contact.

CV and references can of course be supplied on request.

Yours truly,

John Nixon
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