

**700 MHz Spectrum Applications
Response to Preliminary Issues**

4 November 2013

TABLE OF CONTENTS

1. Background.....	3
2. Release of 4G Network Into New Zealand.....	3
3. Response To Preliminary Issues.....	4
4. Response To Preliminary Issues(cont).....	5

1. BACKGROUND

The release to auction by the government of the 700MHz frequency spectrum for use following the switch to digital television has led to expressions of interest by both Telecom and Vodafone to obtain management rights within the said spectrum.

The Commerce Commission has released its Statement of Preliminary Issues and asked for submissions by interested parties into the 700MHz Spectrum Applications, The Radio Network would like to provide a submission on the various points raised.

The Radio Network operates 126 radio stations in New Zealand through 7 key brands, broadcasting in both the AM and FM broadcast radio spectrum.

Complementing this is an increasing stable of brands accessible via **iHeart Radio** <http://iheartradio.co.nz>

This site enables our listeners to access top rating stations in NZ, Australia and the USA, as well as creating custom (individually personalised) stations to suit every unique taste.

Listeners can also interact with any of our stations via websites, mobile apps and social media, complementing our traditional broadcast medium.

2. RELEASE OF 4G NETWORK INTO NEW ZEALAND

The introduction of the 4G Network is positive for New Zealand and will enable greater consumption of media from mobile devices.

3. RESPONSE TO PRELIMINARY ISSUES

i. The applications presently before the Commission relate to the acquisition of the management rights to 700 MHz radio spectrum to be used in the development of 4G mobile services. We will consider, and are interested in parties' views on, whether 4G mobile services are sufficiently distinctive to place them in a discrete market from second generation (2G) and/or third generation (3G) services.

The Radio Network submits that based on its belief of maximum available exposure to potential customers that the 700MHz band will allow greater access and therefore a more enjoyable experience for our potential listeners.

In terms of whether 4G services are sufficiently distinctive to be placed in a discrete market, it is considered a moot point, as the same products or services are accessible on 2G and 3G – however the overarching difference is the speed or delivery of services over the 4G Network.

ii. Currently limited 4G mobile services are being provided and developed using Spectrum in the 1.8 GHz and higher bands. However, spectrum in the 700 MHz band is expected to be a more efficient means of delivering 4G mobile services to rural areas as well as improving indoor coverage in metropolitan areas. We will consider, and are interested in parties' views on, whether particular spectrum frequencies constitute individual product markets or form part of a broader differentiated market for wireless spectrum management rights.

The Radio Network agree that using the lower 700MHz will achieve greater coverage opportunities into both rural and indoor areas of more densely populated metropolitan areas.

The Radio Network would like to place on record the issue of potential interference. There have been reports of high order harmonics from FM broadcast transmitters limiting the range of 700MHz 4G coverage and the cellular operators demanding that broadcasters retrofit expensive low pass filters on the transmitters to attenuate any harmonics. It is The Radio Network's position is that Cellular Operators cover the cost of the low pass filters and the fitting cost, as the FM Broadcast transmitters meet all current RSM licensing requirements.

Any interference issues will have a commercial impact on The Radio Network as we have contractual commitments to advertisers to deliver interference free advertising and from a consumer perspective any interference would degrade the listening experience. In addition to this, The Radio Network delivers a civil defence service during times of crisis e.g. Christchurch Earthquake and any interference issues would impact on our ability to deliver this.

The likelihood of interference happening in New Zealand is unknown at this stage although much lower power FM transmitters are used in New Zealand than in either Australia or the USA.

Therefore it may only be an issue for consideration where FM transmitters are located close to populated areas that are targeted for 4G mobile coverage.

4. RESPONSE TO PRELIMINARY ISSUES(CONT)

This interference potential is independent of who operates the 700MHz 4G spectrum unless one operator is more likely to file interference complains than the others.

Provided the 4G network is installed using best engineering practice, we do not expect that TRN will experience interference issues arising from mobile operators digital transmissions in the 700MHz band into our STL receivers.