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January 29, 2015

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Gentlemen:

This document represents my comments as a private citizen about the Digital Television Regulation Consultation Paper, January 2015.

I am a retired sound recording engineer with 30+ years of experience at the highest levels of Hollywood filmmaking. Although retired, I participate in engineering Standards activities at the Audio Engineering Society (where I am chair of the Technical Committee - Sound for Digital Cinema and Television), the Society of Motion Picture and Television Engineers (SMPTE), Australian Radiocommunications Study Group 6 (Broadcasting), and TC 36 of the International Standards Organization (ISO), Cinematography.

My comments on this Consultation Paper are my own only, and not from any of these other groups.

#### ABOUT THIS PAPER

The summary of the changeover to digital-only television is useful, but the suggestion that Ofcom, or any research organisation, is able to describe the television media environment in the future is absurd. Their predictions are as likely to be true as the research done in 1999 as we planned for digital.

#### 1.1

The analysis in this section I believe is flawed.

The "multi-channel" option has in many cases proven to be a waste of airspace. Endless hours of shopping channels or reruns of cheap American programming isn't doing anyone any good.

And the issues surrounding High Definition broadcasting have been poorly implemented by the broadcasters.

Since the analogue switch-off, virtually every digital television in Australia is now high-definition ready (either 720 or 1080). The use of SD signals on any broadcast channel should be discontinued. As the world has converted quickly to HD, I'm surprised that any of the Australian broadcasters would even consider maintaining two parallel broadcast plants - one in HD and one in SD.

However more regulation should be considered to ensure that the HD signals being provided by the commercial networks is of HD quality.

In Cairns, the signal path for the broadcasters is quite often severely degraded by the infrastructure to the transmitters. On all of the channels that have HD channels, they are routinely degraded by this insufficient infrastructure. This is unfair for the regions, and technically easy to solve.

Additionally, data compression schemes used on HD signals are degrading the actual picture quality - in some cases to below that of SD signals! This is a complex issue that is related to not just the use of compression at the end point, but the use of several encode/decode data compression passes on the programming. Data compression artifacts are a routine part of regional broadcasting despite transmitters that are fully HD compliant.

I have rarely seen a true HD picture from the four commercial networks. The ABC does much better in this respect.

The multi-channel option should be used to allow true local regional broadcasting, even if by community groups or others. Public Access television is the norm in the United States, where Public Access television requirements are routinely part of cable television distribution agreements (typically done city-by-city). While Australia has little cable television penetration, there is no reason that one of the multi-channels can't be dedicated to local regional broadcasting.

Cairns currently gets its "local news" from two networks, neither of which is actually doing a local broadcast. It's a fraud, and leaves regional areas without any proper public access to the airwaves.

The regional areas could relieve one of the commercial broadcasters of one of their SD services in "service deficient" areas.

### 1.3 Primary Channel

This section does not go far enough. Whether or not the concept of "primary channel" is retained, ALL broadcasting should be a minimum of HD 1080i.

New higher-level services are about to be introduced that I believe will require retention of the "primary channel" concept. Super High Definition Television (SHDTV) core Standards are just about completed by the ITU, SMPTE, and others and this service requirement will need to be addressed at this time in this Consultation.

### 2.0

The idea of "more flexible use of spectrum" sounds reasonable on paper. The reality I submit is very different.

The TV networks in Australia have proven remarkably inept at even running multiple TV services. The allowed data casting has been a failure. And the ability to use this spectrum for alternative uses is made virtually impossible because of Australia's small economic footprint. No one would develop a alternative use for this spectrum (say for mobile communications) because it would be impossible to implement in other countries without the same type of reuse of TV spectrum. Meaning none.

### 2.1

Datacasting is a waste of time and resources. Give it up. Most people have in their pocket devices that supersede any possible services on datacast.

The same is true of narrowcasting.

### 2.2

The "third party" content being provided cannot justify use of limited and expensive broadcast transmission bandwidth. These channels can easily be accommodated via cable/satellite/broadband delivery. It's an insult to the public airwaves to dedicate this space for this use.

### 3.1

After reading this section, I wonder if anyone there follows the broadcast advances being made at the world Standards organisations at all.

MPEG-4 is now a deprecated technology. Governments around the world are now in the opening stages of evaluating the next generation of spectrum-efficient tools. The

Advanced Television Systems Committee (USA) moved to MPEG-4 in 2008. 2008! Six years in technology is a lifetime.

Australia should now be evaluating as the next step MPEG-H and equivalents, MPEG-4 is on the way out.

### Summary

This Consultation Paper discusses in depth all the details about the broadcasters, their needs, and the current regulations.

No where does anyone seem to care at all about the quality of services being delivered to the consumer. Who's speaking up for the consumer (and by extension, the producer)?

In addition to everything that's been discussed, the Department of Communications needs to develop and enforce reasonable, objective Performance Standards. Measurements of the quality of picture and sound being delivered to the consumer. Digital Television has increased the performance of these systems - and yet in many cases these improvements have been non-existent for consumers. Especially in regional areas.

Australia is currently plagued with poor-quality implementations of a reasonably high-quality Standard, High Definition Television. Over compression, cascaded compression, and low-bar Standards are screwing the Australian consumer.

Now you're proposing "more of the same". Where is the vision?

Current multi-channel use by the commercial networks has been a failure. Let's find a mechanism to get this bandwidth used by the public for public interest, along the lines of the Public Access requirements in the USA.

Forget the bandaid of MPEG-4 - let's start planning now for SHDTV and build the systems required to get these advances to the home of the consumer. Embracing HD and then having no performance standards is a waste of everyone's time.

I count myself among those who have spent large parts of their career producing content for film and television. Nothing is worse than taking these expensive productions and shoveling them out to the public with no care or interest in quality.

It's of course necessary to ensure broadcasters have flexibility and live in a regulatory framework that allows them to be profitable. But not at the expense of the consumer. The broadcasters cannot be given a "free pass" to operate as they have been.

Sincerely yours,

Brian McCarty

Cairns