



Rural Electronic Products

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ERM:tm

16 July, 2007

Attn: Trish Barnes
The General Manager
Digital Broadcasting
Department of Communications, IT and the Arts
GPO Box 2154
CANBERRA ACT 2601

Re: Digital Discussion Paper

Dear Miss Barnes,

Thank you for the opportunity to submit suggestions and ideas following receipt of your discussion paper. By sending our submission in hard copy as well as by email, we are giving our permission for it to be used on your website should you require. Our interest in the project follows on from our previous involvement—we constructed 25 Black Spot sites and supplied equipment to 6 other sites.

The critical decisions that need to be made seem to be:

a. Do we replace the existing analogue translators with digital translators and modify ancillary equipment accordingly?

OR

b. Do we recommend D.T.H. satellite service in all homes that currently receive the analogue service?

The advantages of choice “a” are:

- It can be a quick and easy changeover if planned properly.
- It is likely to have a somewhat increased coverage than the analogue service provided.
- It will continue to have local content on the commercial channels such as news, sport & advertising.
- The facility i.e. the tower, hut & security fence will remain operational and able to accept such community based additions as a local radio station, bush fire/police radio, wireless broadband etc.
- It will also be more economical to change over from the analogue service.

Should the D.T.H. satellite method of reception be adopted:

- No local content would be available
- The community advantage of locally owned transmission site would be lost
- The cost to the taxpayer would be greater. At say \$700 per home for the D.T.H. satellite service, for 200 homes the overall cost would be \$140,000 against about \$12,000 to \$15,000 per channel for the digital transmission service, say \$75,000—about 50% of the satellite option.

Moreover, where do we stop? In a growing community such as Hartley, South Mudgee and many others, we can't go on forever installing D.T.H. satellite receivers at the taxpayer's expense but it would not seem fair to some newer residents if they missed out as they moved into newly developed housing estates in the area.

We mentioned a figure of \$12,000 to \$15,000 including installation for each channel for a digital translator. These are units able to receive digital services off air for the input with down conversion to

I.F. properly filtered with surface acoustic wave filtering and up converting, then feeding an RF power amplifier—all in one compact unit. If the same output channels as were used for analogue are to be used for digital, the same combiner with minor adjustments will be used. The same transmitting antenna and the new translators will fit in the existing racks, thus keeping the cost of the changeover down. We do not support the multiplexing option mentioned in the discussion paper as they not only have greater technical demands but should the transmitter fail, the community would have no service at all whereas with a five translator system, if one fails there are still four other services.

On the matter of timing, we would see the following procedure a smooth and practical way of achieving the changeover with minimum disturbance to the Community's service. We would expect that by 2008 most digital services proposed across Australia will be operative and we see this as a suitable time to effect the changeover of the self-help transmission sites, when reliable inputs will be available. The chosen contractor to perform the changeover could advertise weekly for a month or so in the local paper as well as having the licence holder assisting with some form of publicity. In areas where there may be a local retailer who could supply set top boxes, a sales person could have an interest in publicising the event. We don't believe any grant should be made in respect of set top boxes as no such benefit has occurred in current digital reception areas and again if a time line were observed and the offer cut out it would not be fair to new comers to the area.

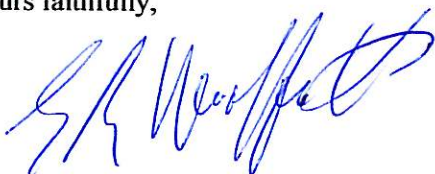
The change of equipment would be planned around the advertised date with the equipment already on the site. The operation should only take a few hours at most if suitable equipment is all prepared and the same channels are used. Advice from the ACMA indicates that this could be the case for most sites. This would be desirable as the same combiners could be used as mentioned above.

To complete our submission, we would like to add the following comment. Many who are moving from capital cities in eastern Australia are re-settling in areas we would not really call remote, but they are areas in and around the hills of the Great Dividing Range, again difficult reception areas, extending from the far south of eastern Australia to Queensland. Whilst D.T.H. satellite services can be received in these difficult reception areas, a small local digital service would bring these residents their local news, sport and advertising, which they would wish to receive. We currently have a design for a single item translator concept that could be very quickly installed and commissioned. All equipment is contained in a secure locked cabinet mounted at a 4-metre level or a 20-metre tapered pole designed to be vandal-proof. This single unit could be erected easily in a suitable location where good digital reception is available, yet positioned so as to transmit satisfactorily into the affected area. These units could be quite low powered with limited range so that interference between sites would not occur—one or two watts for example, sufficient to cover a 2-5 kilometre range.

The cost of a 5-channel translator set up and commissioned would be approximately \$70,000. Councils may not be particularly interested in becoming co-ordinating bodies for such devices as they do not see providing television as their job. However, they could be encouraged to become part of such a plan if the tower was also available for them to sublet space for wireless broadband purposes or such like and receive an income to cover ongoing maintenance costs.

The technical difficulties for broadcasters and communication providers have become quite challenging and we need to constantly look at all options to provide services to the public and we trust that our submission has been in some way helpful.

Yours faithfully,



Euan Moffitt
COMMUNICATIONS ENGINEER