As a long-term user of the VAST and the preceding Aurora service, I would like to make the following observations regarding the service by using the questions raised by DOC:

**Feedback on VAST**

1. *In what ways is the VAST service appropriate for delivery of television in areas without reliable terrestrial coverage?*

Using such a massive amount of commercial satellite bandwidth to deliver what is now old technology is not what Australian taxpayers would consider cost effective.

If the cost of the VAST and the NBN Skymuster remote services were overlaid, the cost per head of remote users would be difficult to comprehend

1. *Are the current range of TV and radio services offered appropriate?*

It can be argued that the current service delivers the terrestrial TV experience and it is adequate for remote viewers. The user experience is far from modern and the services carry inappropriate advertising and black spaces in some channels in the station and commercial breaks. This can be overcome with newer streaming and set top box technology

1. *To what extent are VAST set-top boxes meeting the needs of viewers?*

For unknown reasons the government licenced VAST set top box sales *exclusively* to one and later 2 additional manufacturers. Most VAST set top boxes have been technically inferior. The first VAST boxes had a build cost of around $45, yet they were sold to end users for approximately $250. These boxes had inferior power supplies that a majority of failed within 2 years, usually just out of warranty.

When set top boxes fail the remote Australian user is left without a television service for weeks while the box is sent to Sydney for repair then returned. A hot swap service should have been offered.

You only need browse the Set Top Manufacturers web sites to see information still lingering about the imminent Aurora service turning off in 2013. Perhaps this demonstrates how the service is perceived by them.

1. *To what extent do the regional commercial news arrangements on VAST meet the needs of viewers?*

As the regional broadcasters reduce their commitment to “localism” it is an economic conundrum why so much bandwidth continues to be used to deliver so many channels to so few people. Using MPEG compression standards is no longer appropriate or economic.

1. *Specifically, how could the current VAST service be improved?*

Remove all of the Optus B series satellite capacity costs and transfer it to part fund distribution of a remote TV service on the Skymuster satellites service using streaming video. A large amount of remote TV users have a Skymuster dish, this would alleviate some of the installation cost of a new service.

Savings could be allocated to part fund a new receiving device for homes outside terrestrial transmission coverage.

 **Changes in the media landscape—2010 to now**

1. *How has the increasing availability of online TV content changed the way viewers access and consume content in areas unable to receive terrestrial FTA TV transmission?*

Over the Top services (OTT) can be accessed in some TV blackspots. However, the very nature and original proposition for introducing the VAST was lack of access. TV blackspots go hand in hand with broadband blackspots. Sadly, nothing has changed since the 20th century. (ADSL and NBN wireless reaches a thin minority of remote homes that need a VAST service).

Most VAST users also use the NBN Skymuster broadband service but there is a major bandwidth impediment to streaming video.

Put in perspective, streaming the average daily hours of a single TV channel per household, the service would exceed the all known data plans within 48hrs. Overlay that with the expectation of HDTV and the problem is obvious.

The cost of bandwidth and the speed available makes it impossible to consider without a major re-think of the Skymuster service.

There may not be sufficient bandwidth available on the NBN satellites to carry such a service. Among others, the NBN has sold off substantial broadband capacity so Qantas customers would not be without Wi-Fi during their average one-hour flight.

It is perceived that the commercial applications of Skymuster have caused speed degradation and constant service interruptions to remote users.

**Changes in technology and distribution networks**

1. *To what extent should future delivery models allow flexibility to utilise new technology to provide access to terrestrial television services?*

In conjunction with the observations made in 5 above, consideration should be given to the use of smart or smarter in-home technology. This may include store and play services in the receiving device. If this was undertaken, then fewer regional and time-based channels could be streamed to home devices. Local news services and regional content could then be inserted to the main channel streams in the home. I am sure this technology will be discussed at length by other stakeholders.

**Conditional Access**

1. *How could the process for viewers to apply for and access VAST be improved? Does the process remain appropriate?*

The current process is no longer appropriate. The application process has improved however it is cumbersome. When the system moved to automated services it let the end users down.

If a streaming technology were to be used, the end user experience can be simplified. If a conventional satellite TV service is utilised, then resources will need to be funded to approve and implement the service.

The future end user device should be made available through a simple web-based acquisition system. It must be fast and reliable with a breakdown replacement device available quickly and efficiently. A delivery service like the Click and Collect system comes to mind. It is however vitally important to consider the very remote users in this scenario.

*9. What are the key reasons for maintaining the conditional access arrangements beyond 2020?*

The commercial free to air channels argued the need for conditional access on two fronts. 1) to stop metro viewers to acquiring a VAST service to get around the sports blackout periods. 2) it was argued that the commercial services needed to control the reception areas of VAST to protect the ratings statistics. As the broadcasters self-regulate and control the collection of performance statistics, conditional access is not required. The VAST service can easily be excluded from the ratings system and the broadcasters can adjust their algorithm to rate their performance.

Future service should have a robust approval by location system. End user devices may require password protection and location-based access systems to see they were used in accordance with expectation.

**Funding**

1. *What are the main factors that would most influence industry investment in the delivery of FTA TV services in areas unable to receive a reliable terrestrial transmission? Why?*

Profit.

The commercial broadcasters successfully argued that the telling of the Australian story would be eroded if the Government didn’t relieve them of licence fees. They were also concerned that they would have to increase the amount of cheaper reality television if they weren’t granted further concessions. Then they adjusted, through their self-regulation, and introduced gambling advertising into children’s viewing time (previously post 2300) because they needed the revenue to continue to broadcast free sports programming and to protect the telling of the Australian story. They clearly need profits from Australian viewers.

**Funding**

*10. What are the main factors that would most influence industry investment in the delivery of FTA TV services in areas unable to receive a reliable terrestrial transmission? Why?*

I have reservations that the FTA industry will volunteer to fund future remote TV services unless they are incentivised. I do hope there is solution for a modern technically simple experience for remote TV users.