

Commissioner Paul Lindwall  
Commissioner  
Productivity Commission  
GPO BOX 1428  
Canberra City ACT 2601  
Via online submission portal

January 27, 2017

Dear Commissioner Lindwall,

**Re: Telecommunications Universal Service Obligation, Productivity Commission Draft Report. Re Information Request 6.1**

Information Request 6.1

Participants are invited to provide evidence on the adequacy of NBN's satellite voice services in relation to defining an acceptable baseline for a universal service. Information on practical and cost effective alternatives to NBN's voice services in areas that currently have no mobile coverage, and their relative merits and costs is also sought.

## Introduction

Cotton Australia welcomes the opportunity to provide comment and, as the peak representative body, speak on behalf of cotton growers regarding the Productivity Commission's Draft Report into the Telecommunications Universal Service Obligation (USO) Inquiry. The cotton industry is an integral part of the Australian economy, worth over \$1.25 billion in export earnings for the 2014–15 season, and employing on average 10,000 people. The industry's vision is: Australian cotton, carefully grown, naturally world's best.

Cotton Australia is one of the founding organisations of the Regional, Rural and Remote Communications Coalition (RRRCC) alongside 16 like-minded organisations to advocate on telecommunications issues experienced by regional and remote telecommunications users.

We recognise the PC's efforts in identifying the need for reform of the USO, particularly that a baseline broadband service should now be included.

When the USO was first introduced in 1996, its fundamental purpose was to safeguard access to a minimum level of essential telecommunications services for all Australians. It was a needs-based concept and the designation of a service as a USO service would depend on the needs of the community.<sup>1</sup> The intent of the USO remains relevant today, the ‘minimum level of essential telecommunications services’ cannot be met today by just a voice service, and we support the finding that broadband should now be included.

Cotton Australia will be responding to information request 6.1. It is Cotton Australia’s view that the attainment of quality and affordable telecommunications will remain a challenge if a consumer’s sole means of access is through the nbn. Those connected to nbn’s *Sky Muster* satellite service are already disadvantaged by the latency, reliability and capacity issues.

Regional, rural and remote consumers and businesses need legislative rights to access broadband data and voice services. There should be no degradation in the current voice service that users receive. The service should be set out in a technology-neutral manner and is flexible to adopt technology advances, ensuring that the service meets consumer, business and productivity needs now and into the future. The delivery of voice services needs to be clearly articulated, with the Copper Continuation Obligation remaining until a suitable alternative arrangement is in place.

## Determining Baseline Services

The inclusion of baseline broadband is welcomed by Cotton Australia and recognises the changing needs of consumers in today’s digital age. Digital disruption is said to be behind the next big agricultural revolution, with digital innovation potentially contributing a 25-30% change in business metrics in the future.<sup>2</sup>

Alongside the rapid development of technology in Australia, is the rapid development of on-farm technology with ‘smart’ farming applications. Technology is no longer a luxury, but a necessity to conduct a modern day business, able to compete in the global market, as Australian cotton growers continue to do with more than 99% of the crop exported each season. Access to reliable and fit-for-purpose telecommunications services are essential for anyone living and running businesses in rural Australia.

---

<sup>1</sup> Explanatory Memorandum, Telecommunications Bill 1996, 75-76.

<sup>2</sup> RIRDC ‘Cross Industry Innovation Scan’



Telecommunication services do not just underpin basic communication between people anymore, but essential business activities. For example, on any given day a cotton grower may rely on telecommunications to communicate with employees, online banking, online trading, online ordering, monitoring weather conditions, monitoring soil moisture levels, crop canopy conditions, uploading drone footage and data to share with consultants and agronomists in town, remotely monitoring irrigation systems, accessing data from machinery and so much more.

With the rapid development of technology, baseline services should be set out in a technology-neutral manner that is flexible to service the needs of consumers and businesses. This will ensure that we avoid the current situation where the USO has become outdated. Without significant reforms, the current USO will impose major costs on consumers without the delivery of required telecommunications services. A technology-neutral position will future proof our telecommunications service needs, ensuring they meet the continually evolving telecommunications needs of Australians.

Issues to be considered when determining a baseline service include download speed, upload speed (particularly relevant in agriculture), latency, committed information rate and data inclusions and importantly data allowances. This is especially problematic for those receiving *Sky Muster* services due to the limited data allowances set out in *Sky Muster*'s Fair Use Policy.<sup>3</sup> As data usage rates increase exponentially each year alongside technological advancements and increased uptake of emerging technologies, a system of review that introduces flexibility in the definition of 'baseline broadband' for the purposes of the USO should be incorporated into the final proposed framework.

## *Sky Muster for VoIP*

While we understand the logic behind transitioning USO services to the nbn, as already stated we have strong reservations regarding the suitability of *Sky Muster* to provide a baseline voice service to those without mobile connectivity.

As acknowledged by the PC's USO Draft report, those with access to *Sky Muster* services experience noticeable latency when communicating via *Sky Muster* to another *Sky Muster* service (page 179). It is our view that the removal of the USO would result in a reduced quality service

---

<sup>3</sup> NBN Co Fair Use Policy. [http://www.nbnco.com.au/content/dam/nbnco2/documents/sfaa-wba2-product-catalogue-fair-use-policy\\_20160407.pdf](http://www.nbnco.com.au/content/dam/nbnco2/documents/sfaa-wba2-product-catalogue-fair-use-policy_20160407.pdf)

for people living and running businesses regionally and outside of the fixed wireless or fibre footprint.

### Reliability

The PC report acknowledges a ‘lower perceived quality and reliability to users’ (pg 106) and states ‘a more informed assessment may not be possible for several years’ (page pg 179). *Sky Muster* reliability is questionable with a 2016 survey by Better Internet for Rural, Regional and Remote Australia (BIRRR) revealing 86% of those surveyed had experienced connection issues.

The nbn itself acknowledges that *Sky Muster* was not designed to provide a universal voice service, and recommends those without an adequate mobile alternative keep their landline for backup to VoIP on *Sky Muster*. The removal of the USO, and transition to nbn infrastructure, should not result in a lesser quality voice service than is currently provided under the current USO.

### Power Dependence

A fundamental issue with *Sky Muster* providing the baseline voice service is the fact that it requires electricity to function. Un-planned power outages are relatively common in regional and remote Australia, with an average of 214 minutes of unplanned power outages spread over an average of two outages a year per customer in 2015-2016.<sup>4</sup> It is important to note that in power outages, mobile reception may be redundant as a backup as device battery life becomes a limiting factor, particularly when conducting work away from a standard office. For those with signal boosters and smart antennae to boost mobile coverage to their houses, electricity is often needed for these devices to function and people once again would be left without a reliable means of communication in the case of power outage.<sup>5</sup>

Power outages are extremely common during storms, fires and natural disasters, a time when access to communication services for emergencies is paramount. In the 2015-2016 year, widespread storms caused 5 ‘major event’ days which resulted in widespread outages.<sup>6</sup>

---

<sup>4</sup> Essential Energy Annual Report 2015-2016 (page 6)

<http://www.essentialenergy.com.au/asset/cms/pdf/annualReport/AnnualReport2015-16.pdf>

<sup>5</sup> <https://www.telstra.com.au/support/category/broadband/set-up/telstra-mobile-smart-antenna>

<sup>6</sup> Essential Energy Annual Report 2015-2016 (page 6)

<http://www.essentialenergy.com.au/asset/cms/pdf/annualReport/AnnualReport2015-16.pdf>



Limiting access to reliable telecommunications services during these outages places business-owners and regional Australians at risk.

### Weather Interference

Satellite connections are heavily influenced by the weather with rain fade severely affecting the quality of the connection. The prevalence of weather related interference will vary based on geography, but communication subject to weather conditions is not adequate and is another limitation of a baseline voice service being provided over *Sky Muster*. Weather events are a time when access to communication services, particularly for emergency situations often associated with extreme weather conditions is essential. A robust system is required for regional Australians and businesses to provide reliable service, regardless of weather conditions.

### Mobile Alternative

*Sky Muster* will service 400,000 premises by the time the nbn is fully rolled out. The PC states that at least 310,000 of these premises are able to use their mobile phones, thus providing a low-latency alternative to the nbn satellite (page 176). This figure is questionable due to the nature of mobile coverage maps. In many instances, maps in regional and remote Australia show much of the 'coverage' area is only detectable with external aerials or booster kits. The cost of these extras are borne by the user, and add significantly to the cost of their telecommunications services and therefore affordability. For example, Telstra Mobile Smart Antennae, which is designed to extend indoor coverage for Telstra mobile handsets and mobile broadband devices operating on the Next G network retails for \$960, and the Nexitivity CelFi RS2 – Telstra Network Smart Repeater kit retails for \$949.<sup>7</sup> These boosters often require a power connection.

Mobile coverage is known to fluctuate in regional areas. One bar of service is certainly not enough to make a call from, let alone conduct a business as many people living in regional, rural and remote Australia do. The low capacity of many regional and remote mobile towers means they are often overloaded during peak times of use, such as harvest periods and local tourism events. Defining who has mobile coverage needs to be carefully considered by the PC, as the maximum 90,000 without phone coverage quoted in the draft report may be considerably higher.

---

<sup>7</sup> <https://www.telcoantennas.com.au/site/telstra-smart-repeater-full-indoor-coverage>

## Conclusion

Regional, rural and remote consumers and businesses need legislative rights to access broadband data and voice services. There should be no degradation in the current voice service that users receive. The service should be set out in a technology-neutral manner that is flexible to adopt technology advances, ensuring the service meets consumer, business and productivity needs are met now and into the future. The delivery of voice services needs to be clearly articulated, with the Copper Continuation Obligation remaining until a suitable alternative arrangement is in place.

## Recommendation

Cotton Australia supports the Australian Communications Consumer Action Network's (ACCAN) recommendation that:

*“Consumers’ should continue to have access to voice services, without any degradation in the level of service. Alternative, innovative, technology neutral and cost effective ways to deliver voice services in satellite areas should be considered. To ensure that consumers are not put at risk the delivery of the current Universal Service Obligation and Copper Continuity Obligation should remain until an adequate alternative voice service is established.”*

Cotton Australia would welcome an opportunity to provide further information on its position. For more information, contact Claudia Vicary, Graduate Policy Officer

Kind regards,

**Claudia Vicary**  
**Graduate Policy Officer**  
**Cotton Australia**