

3 August 2016

Commissioner Paul Lindwall
Productivity Commission
GPO Box 1428
CANBERRA CITY ACT 2601

Dear Paul,

Re. Submission to the Productivity Commission's Inquiry into the Telecommunications Universal Service Obligation

The Regional Australia Institute (RAI) welcomes the opportunity to provide a submission to Productivity Commission's Inquiry into the Telecommunications Universal Service Obligation.

Telecommunications policy is one of the biggest issues for the regions and has been a significant constraint for regional development and services for the last decade.

Access to telecommunications across Australia has been fundamental to the development of regions and to supporting a decent quality of life for people outside the major cities. Beginning with the telegraph, Australia has a history of supporting telecommunications as a way of connecting people across our vast continent to each other and the world.

The lag time in revising the Universal Service Obligation (USO) from voice to broadband and mobile has led to the emergence of a stark inequality between Australian regions. 1.7 million Australians live in rural and remote Heartland regions and have experienced very poor telecommunications access.

In an age where telecommunications is fundamental to commerce, social interactions and increasingly access to health and education services, a USO is essential. The lack of a USO that is able to keep track with changing technology and needs has been the key reason for the lag between the rise of broadband and mobile as key technologies and the investment in the NBN and more recently Mobile Black Spot Programme.

A revised telecommunications universal service obligation (USO) must address modern telecommunications needs for people in areas where infrastructure provision is unlikely to ever be a commercial proposition. This USO should include both mobile and internet and balance the costs of implementation with the benefits from universal access to good telecommunications.

We encourage the PC to fully explore the potential benefits of a USO. Research on digital inclusion and governments embracing technology reveals scope for efficiency and productivity benefits government services. Australian and UK analysis indicates that the economy wide benefits are in the tens of billions and a USO only needs to facilitate a portion of that to recoup the medium term costs that may be associated with its implementation.

Without a USO, regions will rely on ad hoc and usually lagging investments in programmes such as the Mobile Black Spot programme. While these have been a useful stop gap approach to improving services they are not an adequate policy response or replacement for a proper USO as they provide no assurance of service levels to be provided or assurance that taxpayer funds are being capably invested towards a clear goal.

In the rest of the submission we have sought to provide the PC with contributions to the key questions raised in the issues paper as well as access to the data sets we hold that can assist you to understand the context for the USO policy in regional areas.

Should you have any queries or requests in regard to this submission, please do not hesitate to contact me directly.

Yours sincerely

Jack Archer
Chief Executive Officer

What are the main benefits and costs of the current USO? How effective is the current USO in meeting its objective of being 'reasonably accessible' to all people in Australia on an 'equitable basis', wherever they reside or carry on business?

The current USO is based on superseded technology and should be transitioned to a new USO that reflects modern technology needs and behaviours.

Prior to changes in technology, the current USO had been highly effective in providing all Australians equitable access to telecommunications. In the absence of a USO for broadband and mobile, the comparatively poor access delivered by the market and previous policy settings (pre NBN) has demonstrated that many Australians have little prospect of receiving access to quality telecommunications at a reasonable cost without a new USO in place.

Without a USO Australia has an increased risk of letting regions fall behind once again as telecommunication needs change. There is also an increased risk of the government pursuing policy outcomes at an efficient cost to taxpayers and consumers.

To what extent is the current USO consistent with promoting competition and innovation in the telecommunications sector? Has the current USO affected competition positively or adversely? Has it discouraged innovation or created distortions that have affected the use, quality and reach of telecommunications services in Australia?

Many regional Australians have no access to telecommunications providers other than Telstra, reflecting its ownership of fixed line phone infrastructure. This monopoly has been further entrenched through the dominance of the Telstra regional mobile network, where 'competition on coverage' means it is difficult for alternative providers to compete for regional customers.

The impact of this lack of competition is most apparent in the differences in price. The consumer advocacy group Choice has identified that having a monopoly could be creating a "tax" of up to 92 per cent for some services. Similarly, alternative products such as 'Naked DSL' where a property receives internet but no phone service have not been made available for many regional customers as a result of Telstra being a monopoly provider. In many areas regional people must accept whatever service Telstra chooses to provide.

The RAI notes that Telstra has also chosen not to provide services on the new NBN Sky Muster Satelliteⁱ making the transition for their regional customers to the improved satellite services difficult, locking them in to higher prices for poorer services or potentially break fees on service contracts.

The RAI sees a revised USO as an opportunity to provide access to quality infrastructure and bring retail competition for both mobile and broadband to all Australians. With the current investment in NBN and the Mobile Black Spot Programme, we are arguably already half way there.

What other current government policies and programs interact with the current USO or may be seen as acting as a substitute for the USO? What are their main benefits and costs? How effective are these policies and programs in achieving their objectives?

Are the underlying rationales for the current USO still valid in today's evolving telecommunications market? Can the NBN be treated as an alternative (wholesale) USO service? What is the justification for funding two sets of infrastructure (the NBN and the current USO standard telephone service) in the highest cost areas?

The original objective of the USO when it was created in the 1990s was to ensure that all people in Australia, wherever they reside or carry on business, should have reasonable access, on an equitable basis, to: (a) standard telephone services; and (b) payphones.ⁱⁱ

Telecommunications have become a vital part of modern life. Service access, communication and day-to-day business operations all rely heavily on telecommunications. Our reliance on telecommunications means that access is only becoming more important, and will likely continue into the future. Having a USO that continues to guarantee 'reasonable access on an equitable basis' is still of fundamental importance.

However the type of technologies covered in the current USO no longer reflect consumer needs or behaviours. Recent government investment in the NBN and the Mobile Black Spot Programme suggest that government recognises these changing telecommunication needs.

The NBN is in the process of effectively delivering a universal broadband service to every Australian household. The Commonwealth government will invest an estimated \$42 billion in the NBN.ⁱⁱⁱ

While this policy will bring services up to a competitive standard for regional Australians and deliver retail competition, it provides no assurance as to future investments and whether the competitive access to technology will be maintained over time for regional Australians.

In a tight fiscal environment a USO is important for providing clarity on the government's long-term policy objectives and for ensuring that the status of telecommunications are regularly considered and updated when necessary to improve services to reasonably competitive levels.

Likewise, as technology and consumer behaviour continue to change, regional Australians need guarantees that their level of access will remain comparable to the urban areas.

The big advantage of the NBN is that the USO for broadband can be updated with limited additional investment. The USO update can focus on developing policy settings that monitor changing technology and needs and invest proactively and efficiently when required in the future.

Without the long-term funding or the ongoing commitment of equitable access, the NBN cannot be considered an alternative for the USO.

What evidence is there to support the rationales? For example, are changes in technologies reducing the costs of providing telecommunications services in regional and remote areas? To what extent are there market-based alternatives to the delivery of universal services through the current USO? What evidence is there to support social or equity based rationales?

There continue to be significant disparities between regional Australia and the major capital cities in access and take up of telecommunications. This is particularly true for the smaller and more remote heartland communities where 1.7 million Australians live. While in the future technology may create commercially viable ways to deliver services infrastructure, we are not aware of any clear alternative to universal subsidised services in the medium term.

[\[In\]Sight: Australia's regional competitiveness index](#) provides a detailed look at all LGAs in Australia across 10 themes of competitiveness.

The Technological Readiness theme measures access, take up and quality of internet and mobile across different parts of the country. The RAI is pleased to share the data with the PC for use in the inquiry process.

Comparing regional Australia as a whole to the major capital cities, reveals that the regions have much poorer access to mobile and internet, it is also of a lower quality (See table 1).

Table 1: Technological Readiness in regional Australia compared to the major capital cities

	Measure	Regional Australia	Major capital cities
Internet connections	% of households with internet connection	68.1%	80.7%
Broadband coverage	Scale of access to high quality broadband (2 (poor) to 10 (excellent))	4.8	7.5
Mobile phone coverage	% area with 3G coverage	74.7%	97.4%
Mobile internet	Quality of access score (1 (poor) to 6 (excellent))	2.5	5.1

Source: [In]Sight: Australia's regional competitiveness index

[In]Sight identifies that for measures of Technological Readiness, the more remote and less populated an area, the poorer its outcomes. If we focus in on the smaller and more remote Heartland regions, the differences in access, take-up and quality become increasingly apparent. These are the areas where the USO will have its most important impacts.

Table 2: Technological readiness in Heartland regions

	Measure	Heartland regions
Internet connections	% of households with internet connection	64.7%
Broadband coverage	Scale of access to high quality broadband (2 (poor) to 10 (excellent))	4.53
Mobile phone coverage	% area with 3G coverage	69.5%
Mobile internet	Quality of access score (1 (poor) to 6 (excellent))	1.96

Source: [In]Sight: Australia's regional competitiveness index

Improving access to telecommunications in regional Australia is not just about providing equity. It is about the national interest in efficient provision of services and improving access for communities to health, education and economic opportunities that can reduce disparities in social and economic outcomes between the city and the bush.

Improved telecommunications is an opportunity to increase access to basic services and support better outcomes in areas such as health and education, both of which play a vital role in improving an individual's productivity.

Looking at access to health and education, regional areas are well behind the major capital cities (Table 3).

Table 3: Essential services in regional Australia compared to the major capital cities

	Measures	Regional Australia	Major capital cities
Access to primary education	Average distance for residents to a primary school (km)	30.5	1.2
Access to secondary education	Average distance for residents to a high school (km)	29.4	2.1
Access to tertiary education	% of people engaged in university education	2.8%	3.2%
Access to technical or further education	% of people engaged in technical education	2.2%	8.5%
Access to allied health services	% of allied health workers	9.4%	11.1%
Distance to medical facility	Average distance for residents to medical facilities (km)	48.8	3.4
Access to GP services	GP visits per capita	4.7	5.4

Source: [In]Sight: Australia's regional competitiveness index

[In]Sight shows that on the whole regional areas are less competitive than major capital cities. Regional Cities which generally have decent connectivity break this trend with comparable outcomes for measures such as tertiary education, employment in health services and access to GP services. It is the small Heartland regions where a USO would apply that are performing well below the regional and major capital city averages. Much of this underperformance is a function of distance which only better telecommunications can help to overcome.

Table 4: Essential services in Heartland regions

	Measures	Heartland regions
Access to primary education	Average distance for residents to a primary school (km)	42.9
Access to secondary education	Average distance for residents to a high school (km)	39.0
Access to tertiary education	% of people engaged in university education	2.5%
Access to technical or further education	% of people engaged in technical education	1.5%
Access to allied health services	% of allied health workers	8.5%
Distance medical facility	Average distance for residents to medical facilities (km)	67.1
Access to GP services	GP visits per capita	4.5

Source: [In]Sight: Australia's regional competitiveness index

Tele-health and distance education are both workable and will be increasingly available solutions for these regions as our health and government services systems are reformed.

Australia has a history of using technology to provide education to students living in remote communities. Schools like Charters Towers School of Distance Education have been providing students with high quality education for decades. Recent developments in telecommunications have improved the way teachers and students engage with each other but remarkably in 2016 much of this service still relies on traditional and outdated telecommunications – the telecommunications that are covered by the current USO.

Tele-health is comparatively newer but already we are seeing some standout examples of regions looking to use this to create better services and commercial outcomes. In 2015, the RAI in partnership with Google, ran the [Regional Online Heroes](#) competition to identify examples of businesses in regional Australia that are using the internet to grow. One of the top ten finalists was [Therapy Connect](#), a tele-health practice that provides speech and occupational therapy to families online. Despite being a young business, Therapy Connect is proving popular with families in remote communities.

The NBN will help to make these types of service provision increasingly easier and more common but will not provide confidence to invest in building the business in a regional location for the long term. One of the most important benefits of a USO will be certainty for communities, local entrepreneurs, government and investors about the services that can be relied upon in the future. This will be hard to value but is important to note in analysis of the benefits of a revised USO.

More information and data on Technological Readiness and Infrastructure and Essential Services have been included as attachments. More information is also available on the RAI's [website](#).

Could the 'optimal' policy option for Australia be no USO?

What should be the objectives of any new universal services policy? Are objectives such as universal availability, affordability and accessibility appropriate?

The RAI see the USO as an essential policy requirement for Australia. Without a USO digital exclusion will continue at great expense to the Australian Government and people in areas that have no effective access to telecommunications in the long term.

Ensuring equitable access to relevant telecommunications should be the core objective of Australia's USO. This includes providing and maintaining infrastructure that allows people to use reasonable levels of data at an affordable price. Promoting competition in provision of the retail services to businesses and consumers is an important consideration in meeting the latter two objectives.

The provision of equitable levels of service will need to be balanced against the very high cost and low returns for investments in some areas (e.g. mobile phone coverage in much of very remote Australia will not make any sense, just as satellite broadband is the only feasible option for provision of this service to these areas). However these decisions should be made after proper and regular consideration of the costs and benefits of extending different levels of services to different communities.

Regular reviews and revision of any technology linked definition (e.g. minimum upload and download speed capabilities) should also be included in any new USO to ensure that the policy remains up to date with consumer needs and developments in technology. There may be scope for these reviews to align or be integrated with the Regional Telecommunications review which currently occurs every three years, providing this process with a clear stake in future USO policy settings.

What types of services should be included in any universal services policy? Should current USO services — the standard telephone service and payphones — continue? If not, what alternatives to these services should be considered? Given the ubiquitous nature of mobile services, should fixed line services remain the focus of the USO?

In addition to achieving and maintaining digital inclusion, ensuring that all Australians can access basic telecommunications, a revised USO that includes mobile and internet will provide two main advantages:

1. Improve government service delivery and economic development;
2. Maximise benefits of government investment in telecommunications and minimise the duplication of resources.

Improve government service delivery and economic development

Improving internet and mobile in regional areas creates new opportunities for Government and businesses to provide essential services in more efficient ways (i.e. tele-health and distance education) and for globally competitive businesses to access national and international markets from a variety of locations.

A recent report by Deloitte Access Economics^{iv} identified that 40 per cent of an estimated 811 million transactions at federal and state levels, are still completed using traditional measures (face-to-face, post and over the phone).

If the proportion of transactions that were completed using traditional methods was reduced from 40 per cent to 20 per cent over a period of ten years, Government would save around \$17.9 billion in real terms (lifetime present value terms).

A further 8.7 billion would be saved by the public in time, convenience and out-of-pocket costs.

Moving services online will be constrained by regional and remote access issues. The costs of service provision and access are also higher in regional and remote areas. The RAI encourages the PC to examine what proportion of these estimated benefits can be facilitated by a new USO, offsetting any costs incurred in its implementation.

Modelling in the UK^v has identified the total potential economic benefit from getting everyone in the UK online is in excess of £22 billion per annum (approximately \$38.2 billion AUD). These benefits are based on several factors including:

- Increased efficiency in government services;
- Increasing participation in education and student outcomes;
- Increase digital skills in adults and therefore their employability and earning potential;
- Teleworking and increasing efficiency of working;
- Better access to information about health and health services; and,
- Household savings generated from shopping online.

Once again, realising these economic benefits is reliant on providing all Australians with internet and mobile access. For all of these issues, the RAI's data shows that the areas a USO would impact most are those with the worst outcomes across these areas, reflecting at least partly the lag in providing better telecommunications.

Maximise the outcomes from government investment

The Commonwealth government has invested \$160 million in the Mobile Black Spot Programme. An estimated \$42 billion is expected to be invested in the NBN. This is all in addition to the \$300 million that government spends annually on the USO. Clearly telecommunication infrastructure will be an on-going area of investment for the Commonwealth.

Revising the current USO is an opportunity for government to pool this funding, minimise duplication and ultimately increase the returns on its investment. It is also an opportunity to achieve (for both broadband and mobile) an efficient provision of infrastructure that also facilitates competition to drive down price and increase the choice available to regional consumers who generally have much lower incomes.

In doing so, government needs to improve transparency around funding and its outcomes.

The lack of data on payphone use for example is an example of this. Despite the \$44 million that has been given to Telstra per annum to maintain the payphone network, there is a lack of data on the value of this network. This lack of evidence is acknowledged by the PC in the Telecommunications Universal Service Obligation Issues Paper.

Similarly, while the Mobile Black Spot Programme is 'fixing potholes' in the regional network, it is not clear what it will deliver overall in terms of better services for regional consumers as a whole. It is also an ad hoc investment in a tower network that includes investment by governments (State and Federal), by Telstra as the dominant market player, by the NBN for its broadband network and by other carriers such as Vodafone. Australia needs a regional network of towers that will create an efficient mobile infrastructure and competition on price not coverage. Applying a USO to mobile in non-commercial areas is an opportunity to resolve this issue.

Which particular user groups (for example, Indigenous communities) and locations (for example, remote locations) should be targeted by any universal services policy? What are the telecommunications needs of these particular groups?

Should telecommunications users in regional and remote locations reasonably expect exactly the same service quality and price (including usage) as those living in cities irrespective of the cost of provision?

Regional communities where it is not commercially viable to provide telecommunications services need to be the target focus of the USO.

Small and more remote Heartland communities are disadvantaged by poor access to telecommunications and basic services. It is this disadvantage the USO should be aiming to help overcome.

There may be some instances where it is not viable to provide equitable service. Government needs to improve its transparency by clearly identifying under what circumstances equitable telecommunications are not feasible and where the costs and low number of beneficiaries make a trade-off in costs versus universal access.

Additional Reading

The Regional Australia Institute has published a number of documents that are relevant to the Inquiry.

[\[In\]Sights for Competitive Regions: Technological Readiness](#)

[\[In\]Sight: Australia's Regional Competitiveness Index](#) snapshots the competitiveness of Australia's Local Government Areas (LGAs) and Regional Development Australia (RDA) regions. This information captures the competitive position of each region and reveals what elements can be improved so that each region can reach its full potential.

This report provides an analysis of Technological Readiness data captured in *[In]Sight*.

[Login or Logout: Online work in regional Western Australia](#)

Advances in information and communications technology (ICT) are changing the nature of many jobs in Australia, as they enable both new types of work and new working arrangements to emerge.

Knowledge-based work can potentially be undertaken in any place with sufficient connectivity, equipment and workforce capability. This unties many jobs from a single site of production. The term online work can collectively be used to describe work delivered from a home-based office, a mobile work site, a call-centre, a tele-centre or digital hub, or a remote operations centre.

This report assesses opportunities and challenges for online work in regional Western Australia to better inform regional development strategies and policy.

[Digital Futures: A case study of the Northern Inland region of NSW](#)

Telecommunications are essential to communities in regional Australia. They enable people to keep in contact across vast distances, assist with access to emergency services and help drive economic growth.

Communications technologies also play an increasingly important role in enabling regional Australia to participate in the digital economy. It has been estimated that the productivity benefit of telecommunications for the Australian economy is \$11.8 billion over the period to 2025.

Focusing on Armidale and Tamworth, this report presents an overview of the current state of telecommunications in the Northern Inland region and identifies the vast amount of work already being done to improve the region's access and engagement. It also includes recommendations on how the region can continue to grow, prosper and improve connectivity through collaboration and the use of communications technologies.

[Regional Online Heroes](#)

In late 2015, The Regional Australia Institute and Google's went hunting for Australia's top ten Regional Online Heroes.

The ten best entries selected by judges from a highly competitive field of 170 applicants were flown to Google's Sydney HQ for a money-can't-buy growth masterclass.

Here they were given the opportunity to learn about new tools and methods to grow their businesses even further. At the conclusion of the masterclass one finalist was announced as the overall winner, claiming the title of 'Australia's Regional Online Hero'.

This competition highlighted the huge impact the internet is having on regional communities in the hands of local entrepreneurs.

Contacts and Further Information

The Regional Australia Institute welcomes the opportunity to engage further with the Productivity Commission on its Inquiry into the Telecommunications Universal Service Obligation Inquiry and any of the issues raised in this response.

To discuss further please contact:

Jack Archer – Chief Executive Officer

Morgan Rennie – Leader, Innovation Watch and Community Projects

About the Regional Australia Institute

Independent and informed by both research and ongoing dialogue with the community, the RAI develops evidence-based policy and advocates for change to build a stronger economy and better quality of life in regional Australia – for the benefit of all Australians.

The RAI was specifically formed to help bridge the gap between knowledge, debate and decision-making for the potential and future pathways of regional Australia. It exists to ensure local, state and Federal policy makers, researcher, business and members of the community have access to the information they need to make informed choices about the future of regional Australia.

Definition of Regional Australia

The RAI defines regional Australia as the non-metropolitan areas of the nation that lie beyond Australia's major capital cities and their immediate surrounding suburbs.

End Notes

- ⁱ Telstra Crowd Support (2016) [crowdsupport.telstra.com.au](https://crowdsupport.telstra.com.au/t5/National-Broadband-Network-NBN/NBN-Sky-Muster-Satellite/m-p/561836#M4533)
<https://crowdsupport.telstra.com.au/t5/National-Broadband-Network-NBN/NBN-Sky-Muster-Satellite/m-p/561836#M4533> accessed July, 2016
- ⁱⁱ *Telecommunications (Consumer Protection and Service Standards) Act 1999* Prepared by the Office of Parliamentary Counsel, Canberra. Amended March, 2016
- ⁱⁱⁱ NBN (2015) *Corporate Plan 2016*
- ^{iv} Deloitte Access Economics (2015) *Digital Government Transformation*
- ^v PricewaterhouseCoopers (2009) *Champion for Digital Inclusion: The economic case for digital inclusion*