

Isolated Children's Parents' Association of NSW Inc.



Submission to the
Department of Communications
2015 Regional Telecommunications Independent Review Committee

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The Isolated Children's Parents' Association of NSW Incorporated (ICPA-NSW) is a volunteer parent group that lobbies for equality of access to education for all geographically isolated students.

ICPA-NSW strives for equal access to education for rural, regional, remote and very remote children. **Reliance on telecommunications and internet in these areas is paramount to enable adequate access to education that is equal to that of urban counterparts.**

It encompasses the education of children from early childhood through to tertiary. Member families of the Association reside in rural, regional, remote and very remote NSW and all share a common goal of access to education for their children and the provision of services required to achieve this.

ICPA-NSW believes that all students, irrespective of where they live, should have the opportunity to receive the education they require to participate to their full potential in the social, economic, political and cultural life of the community.

To this end, the provision of effective communications in regional, rural and remote areas is crucial to enable students to access an equitable education. Education and its provision underpin the functioning of rural and remote towns and communities. Access to appropriate education means that families move to, or remain in, these areas with the intention of contributing to the development and prosperity of that community. Inadequate or non-existent mobile coverage disadvantages rural schools and their students, and consequently the entire community.

The majority of members of ICPA-NSW rely on wireless or satellite internet as do many of the schools and Distance Education home classrooms which their children attend, and for many members and rural schools mobile phone coverage is non-existent or very inadequate.

ICPA-NSW has prepared this submission on behalf of our 857 members.

In early July 2015, ICPA-NSW invited members of the public to participate in a simple online survey. Within 24 hrs, 116 individual responses were received. 100% of respondents live in regional, rural, remote or very remote areas. Over 90% of respondents are ICPA-NSW members. Over 80% of respondents have experienced communication barriers that have negatively impacted their child's education and 45% have experienced positive education outcomes as a result of becoming 'better connected', demonstrating the importance of expanding technology into regional, rural, remote and very remote areas.

The level of participation in our survey demonstrates the importance our members place on telecommunications and internet access with regards to the education of their children. ICPA-NSW was impressed with the responses received in such a short timeframe and we have included direct quotations from the survey participants in this submission. These quotations can easily be identified by *italics* within "quotation" marks.

ICPA-NSW would like to thank the Regional Telecommunication Review Panel for the opportunity to participate in the submission and looks forward to reading the final report.

Kate Treweeke  
ICPA-NSW President

**Question 1. Do people in regional Australia believe their reliance on telecommunications differs from those in urban areas? How does it differ and can you provide examples?**

In many of the rural, regional, remote and very remote areas that ICPA-NSW members live, work and educate their children, **the only form of telecommunication is an ageing RRADIO landline telephone, Next G Wireless Link or satellite telephone. Telecommunication in these areas differ greatly from urban areas as often the only form of telecommunication is used for personal, business and educational purposes.** Children who are educated by Distance Education are usually on large remote properties and the landline is often the only form of telecommunication. It is essential that this service is reliable in order for students to complete schoolwork. Other children travel to school, in many cases over 50kms each way by private car in areas without mobile phone service, to schools located in areas without mobile phone service. Children attending boarding school have difficulty contacting their family at home, as a simple text is often not received due to lack of mobile phone coverage at home. **Schools in urban areas are increasingly adopting the convenience of contacting parents by mobile phone text – quite often rural and remote families do not receive the message until a parent travels to town and can access mobile phone service, by this time the message is obsolete.** The examples provided below are direct quotes from July 2015-ICPA-NSW Communications Survey:

*“The Internet and Telephone connections are sub standard and we pay more for our services than other areas that have a higher level of service. Continual outages and intermittent service limits interaction and performance.”*

*“Where we live, people’s lives and livelihoods can be positively or adversely affected by the telecommunications they do or do not have reliable access too, so access to telecommunications is not just a question of education. Access to telecommunications can be a matter of life or death.”*

*“Our Son is currently attending Dubbo Distance Education and the demand on our land line during school hours is enormous. This includes outgoing phone call to teachers at STD call costs, at times we play phone tag which impacts on the quality of communication and learning outcomes. The high demands on business phone/land line also has a negative effect on business communication” (note, respondent has no mobile phone service and relies entirely on landline for education business/personal use).*

*“Our mobile coverage in the house is poor. This impacts on our business and communication with our children when they are at boarding school. Communication with teenage children living away from home is critical to the well being and health of the child.”*

*“Our landline phone was recently out of order for 1month before being fixed. This meant besides being extremely inconvenient that our daughter missed scheduled phone lessons for that month.”*

*“The reliability of the landline phone service is very poor, and reporting a fault is very difficult when there is no mobile phone service. The online fault report form cannot be used unless an alternative phone number from the faulty one is submitted - not possible with no mobile service. The landline is sometimes out of service for a month. There is no way to contact Telstra to report a faulty service online.”*

*“We are unable to get a land line and so rely on mobile phone coverage. Frequently when the children were enrolled in Distance Education, our phone tower would drop out calls during teleconferences.”*

*“We run our farm business as well as myself working as a school teacher at the local school. We also have a daughter in year 11 and 3 children at university. At present, we are only able to access next G service with a booster Yagi antenna at a cost of \$110 a month, which only gives us extremely limited mobile service. We can only get a maximum of 16 GB of data at present. To run our business, and allow our children to study we need a lot more data and better access. At present we can use our download in 4 or 5 days of our monthly allowance. This is absolutely ridiculous, when in metro areas they have access to unlimited downloads at a reasonable cost.”*

*“If we lose power, which happens quite a few times a year, we cannot access sat lessons. We also cannot access the telephone to call the school if the power goes out.”*

*“When there is an influx of people in our area there is a glut on the tower and signal very bad. This happens on school holidays and any large events in our community e.g., North Star Motorbike Ride our tower signal is non-existent for nearly three days with the influx of people.”*

*“We lose our connection regularly i.e. every three weeks and when we have major issues which are every six months, local Telstra staff can't assist and I require contractors from usually Brisbane to complete job taking up to 2-3 weeks leaving us with no communications whatsoever i.e. no phone, mobile, internet or fax. Our mobile range is sketchy at best at the house and then random across most of the property.”*

*“For those consumers who rely on a landline as the sole means of telephone, I believe that Telstra is struggling to maintain the copper service, especially till the end of the 20 years mandated in the USO. Each time there is a fault on our service, we only receive a patch up job to get us connected again. I have neighbours whose telephone is "temporarily" for the past year, connected via a wire strung down their driveway along the fence. In the past 12 months faults have been more frequent. We live in a black spot which we do not really expect to be addressed in the Mobile Black Spot program, as mountains prevent signal reaching small pockets of residents - only about 40km as the crow flies from Parliament House in Canberra! We are happy to live with this, but do expect that our landline service be reliable and maintained. My three children have all finished school now, the last in 2010, but learnt to Yr 12 through Distance Education.”*

*“Very slow internet speeds, with an inability to download videos etc. No mobile phone service has impacts every day in today's world when 'everyone else' has mobile service.”*

*“As a family living in a rural and remote community I believe we should have as good as telecommunications as those that live in metropolitan areas. There should also be first class telecommunications for families who are educating their children through Distance Education.”*

*“We only have mobile coverage in our house because we erected our own tower with a Yagi aerial (at our own cost) after many attempts to get some form of internet service. We were not eligible for NBN as at some stage there had been a service here, possibly 10 years ago. If we did not erect our own tower we would have had no coverage, internet or mobile at all. The cost of trying to get some form of service was extremely inhibiting. Telstra has no interest in assisting us.”*

*“Very slow connection - ISDN two phone lines takes a long time to load at 128bps. Children are used to accessing educational material for university studies via WiFi.”*

*“We live on the edge of mobile service and things can become frustrating, but when that is all you know you learn to deal with these things and have ways to overcome them. It is not until you go into an area with fast internet or constant mobile service that you realise that life can be much easier.”*

*“Even the Boarding School world expects us to have mobile service. They send us bloody texts and leave us messages with regards to our kids at boarding school even though we have EXPLICITLY advised we do not have service!! One boarding school we deal with also has a 'Portal' on their website that vital information is expected to be accessed on via the net. We CANNOT access it via satellite - it simply NEVER works.”*

*“Our mobile service is dreadful. We have had to install two Yagi aerials and a smart antenna just to get mobile service. Without these we have nothing. Our internet continually drops out. Our daughter is always complaining about our internet service and how it's affecting her studies as everything relies on the internet for assessment research, homework tasks being completed online and to actually submitting assessments online. I feel her studies are affected immensely.”*

*“The Telstra 3G service is quick but far too expensive and limited to 15 GB max.”*

**Question 3. Having regard to the technical solution likely to be used in your area, do you have views on the adequacy of that solution in terms of meeting needs now and into the future?**

ICPA-NSW has concerns about the effectiveness of the Long Term Satellite Service (LTSS) with regards to ensuring equitable access to education for both Distance Education and Rural Schools. The recent NBN Co policy restricting all users of the current Interim Satellite Service (ISS) to 20 Gigabytes per month (with no right of appeal to users who have unintentionally found themselves at full capacity) is viewed as highly restrictive and unfair. ICPA-NSW is yet to see any data that proves this recently introduced restriction has benefitted any user of the ISS in terms of increased internet speed. Given the restrictions that satellite is renowned for, combined with the rapid movement of technology, ICPA-NSW has concerns about the long term future of satellite services and the subsequent reliance on them for education in rural, regional and remote areas. **ICPA-NSW is interested to know what data allowances will be permissible on the new LTSS, as children currently studying by distance education require 30 GB data per month and this will increase as online technologies change in the future.** The NBN LTSS requirements should also include those rural school that are on satellite and would look to move to the LTSS when available

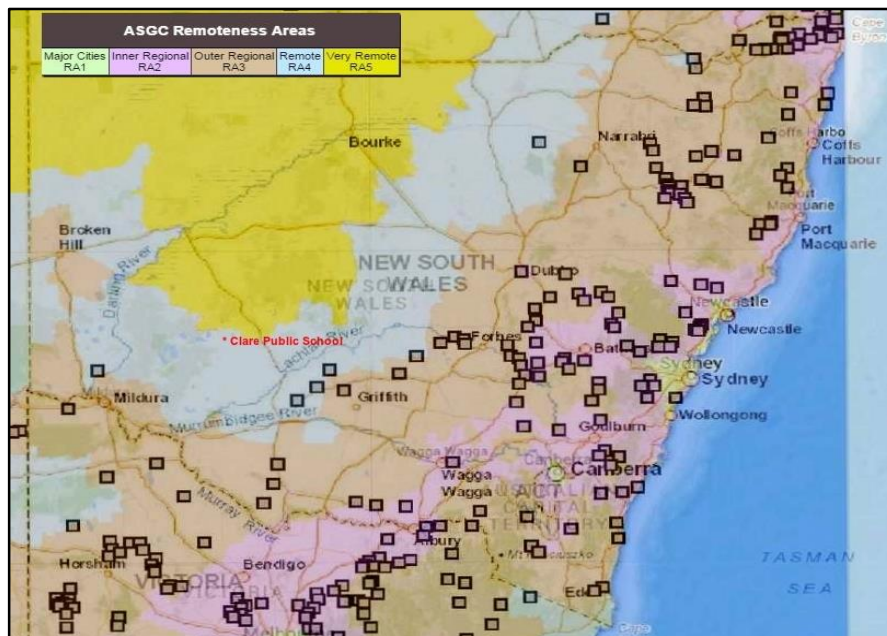
(currently 20 P5/P6 satellite schools in NSW, no secondary). These schools would have a much higher usage with approximately 1GB/student/day plus administration usage (all school administration completed online so usage quite high). The majority of users who will use the LTSS for educational and personal use are also running businesses that, due to their remote location, require the ability to expand their options online, therefore whilst it is pleasing to see the LTSS being implemented early in 2016, satellite is still the most cumbersome utility available to users, and it quickly becomes outdated when compared to the fast pace of technology. **A concern of ICPA-NSW is the current internet plans for rural and remote areas and the amount of available gigabytes is restricted compared to urban areas as well as being at a higher price per gigabyte when these rural premises are often multi-purpose use e.g. educational, personal and business.**

*“The large 50 GB monthly allowance we had up until recently, on NBN ISS was great for our children's education.” (Users on the ISS have since been reduced to only 20GB)*

**Question 5. For users living in areas without mobile coverage, what priorities, other than specific locations, do you consider should be recognised in future efforts to improve coverage?**

Priorities, in ICPA-NSW's view, should be rural and remote schools that currently do not have mobile technology. **Rural schools are at the heart of their communities and many other community meetings and activities may occur at these schools as well. These schools are recognised by emergency services as ‘safe places’ in the event of natural disasters and often hold the Royal Flying Doctor Medical Chest in the case of health emergencies.** Schools are much more significant than almost all other types of premises or facilities in determining the value of mobile connectivity. Given the vital role that schools play in rural and remote areas, it is essential that those areas that have schools with inadequate or non-existent mobile coverage are prioritised. While the Federal Government's mobile black spot programme and NSW Government co-contributions will undoubtedly be of great benefit to communities in inner and outer regional areas of NSW, **ICPA-NSW is concerned that remote and very remote areas, the very areas which are in desperate need of a reliable communications system, are noticeably absent from the first round of mobile tower construction under the mobile blackspot programme.**

Despite repeated and significant Federal Government statements that this program was to be for the benefit of regional **and remote** communities, **ICPA-NSW estimates that well under 5% of the 144 successful NSW base stations are located in geographically remote or very remote locations as indicated below.**



*“Our children attended Tullooona Primary School (80km North Moree, 50 km from Boggabilla) and there is no mobile service at this location. The school relies on satellite which is most unsatisfactory - computers run slowly and all very frustrating for teachers and students alike. More needs to be done to ensure education centres have internet speeds to facilitate positive academic outcomes for all students. On line study and links between primary school students is essential in multi stage classrooms. Technology equality amongst public schools is a problem that needed to be addressed yesterday. Students are marginalised by where they live in today's academic environment.”*

*“Mobile coverage is patchy. We have good coverage at home but 15km away at Mallawa Public School the coverage is not good. Coverage at Bullarah School is also ordinary. We often get comments in ICPA meetings about both schools being in mobile black spots.”*

*“There is approximately a 15,000 square km Mobile Phone Black Spot along the Ivanhoe Rd from Balranald to just north of Clare. This area is larger than the entire city of Sydney, including the Central Coast and Blue Mountains. Clare is a locality 155km North of Balranald and is home to the most remote School in NSW, Clare Public School; in this day and age it is unacceptable to have such a void in mobile phone service at school.”*

*“We live 165 north of Balranald. My children have attended the Clare Public School, and then they attend boarding schools. We have found that they are behind with the technology used at the boarding schools, so not only are they homesick but they are trying to understand what they other students have had access to already in their primary years. As all their books are basically computerized at school now, all correspondence to the students is online.”*

*I have had to do reading recovery with my children at home due to the fact that the internet is so slow I could not do the program online. Our children deserve the right to have the same opportunities that other children have with better telecommunications access. We have travelling RAR teachers that have to travel 155kms from town to school with no mobile service. Also I travel 20 kms a day to school with no mobile service so if there is a problem unless a neighbour is home I cannot reach anyone.”*

*“I work for a Mobile Children's Service in Far West NSW. We spend a considerable amount of time on the road and travel through many areas with patchy phone and internet service. When I'm on the road, I use a 4G mobile broadband device. For the last 4 years, I have been studying a University degree by distance. In particular areas (Wilcannia 2836, Menindee 2879) Internet and phone coverage was consistently terrible, with weak signals and at times, my connection would completely drop out. In other areas, there were certain times of day when it seemed the connections were much slower than usual. It's bad enough that Mobile Broadband is so expensive, but the fact that it is so unreliable is very frustrating. Of course, there are areas where there is no phone service at all. This is difficult when we spend a lot of time traveling. If we were to have an accident, there are areas where we would not be able to contact anyone. Recently we travelled from a community just out of Balranald (2715) called Hatfield to Pooncarie (2648). It's a trip of almost 200kms and had mobile coverage for just 30kms of that. While I applaud the idea of the NBN, I think that it's unfair that parts of Australia are getting super fast broadband, while other areas have no connection at all.”*

**Question 7. Do you have any views on co-investment approaches that might help to improve the broadband technology outcome in your area?**

ICPA-NSW welcomed the Federal Government's investment of \$100 million towards the Mobile Back Spot Programme and the recent NSW Government commitment of \$25 million co-contribution to this programme. ICPA-NSW believes that co-investment synergy between all levels of Government is the only realistic way that mobile base stations will be expanded. Whilst ICPA-NSW understands that successful areas are dependent on marginal profitability to the telecommunications companies, this factor of marginal profitability is a function of the level of contribution in respect of particular sites offered by co-contributors such as the NSW Government. **ICPA-NSW suggests that the number of successful applications in remote and very remote areas is therefore certainly a matter that can be influenced by NSW Government co-contributions in particular geographic locations.**

**Question 8. How might new applications and services that utilise mobile networks for voice and data transform the way you live and work?**

**ICPA-NSW is of the view that access to mobile networks enhances learning in remote areas in an increasingly online learning environment.**

Education has rapidly moved into an online realm. Rural Schools and Distance Education in homes are equipped with computers, laptops and other devices such as I-pads, which have the benefit of mobile connectivity. **Students studying by Distance Education or attending Rural and Remote schools with only satellite internet are disadvantaged by low speeds that create a frustrating and often debilitating learning environment.**



This creates an unequal access to learning to that of their urban counterparts. The benefits, therefore, of accessing applications that utilise a mobile network for online learning in such cases is immeasurable. Children who are schooled by distance education would be able to access many online applications on their laptop via the mobile utility, therefore enabling their supervising parents to continue to run their farm business outside the traditional home schoolroom and allow students to continue to be educated no matter where their day on the farm takes them.

*“Being able to download apps on my daughter's tablet has enabled her to play and learn while out with me mustering, fencing etc.”*

*“The Internet constantly falls in and out all the time. It's very unreliable. But better than not having it at all!!! Having the Internet at our fingertips at any time of the day regardless of whether we are home or working out in the paddock is priceless. We can be kept up to date about news/agriculture issues everywhere.”*

**Question 9. What communications barriers have you experienced in expanding or operating your business or providing services, such as health or education? Have you been able to overcome these barriers and if so, how?**

In NSW, there are approximately 270 students using the Interim Satellite Service to study by distance education.

ICPA-NSW is aware that these students have great difficulty using the current satellite internet for Distance Education and School of the Air classes. **This is due to the slow download/upload and timing out issues, especially during peak times when lessons are being generated via Remote Education And Conferencing Tool (REACT) and using a lot of bandwidth. The system requires an internet speed of 20mbps but is currently working on the unacceptable speed of 4mbps.**

The slow download/upload and timing out issues with satellite internet often result in work being lost upon submitting online, this is a disruption to the whole class and time is exhausted in the online learning environment. **ICPA-NSW's recent communications survey revealed a multitude of issues that are negatively impacting education (from pre-school to tertiary) in rural, regional and remote areas of NSW:**

*“Children who are enrolled in Distance Education School in many cases do so due to isolation. We have access to the internet for school satellite lessons and research for projects. We have been asked to limit when research is being completed on the school internet system because it appears to have a negative effect on other students while they are logged into satellite lessons. However we have this wonderful system REACT and internet for school hours but no access after school hours to extra lessons like Music or individual tuition via for private institutions. Social opportunities are limited at times in the Western Division with few children remaining at home to complete their education.”*

*“Had my children continued with Distance Education, they would have been disadvantaged by not having access to a fast and affordable Internet service.”*

*“Due to restricted downloads (maximum 25 GB per month) and slow download speeds on average 2mbps) children are unable to access homework programs such as reading eggs and mathletics. They do not develop the habits of using the internet for research or as their access is restricted. At school the speeds are so slow that the teachers do not use the internet into their programs.”*

*“Faster speed would be good. I once wasted \$200 on an online coaching/lifestyle course that relied heavily on videos. I downloaded one but then didn't download anymore as it took too long to download them. I have just signed up to complete my CPA which is completely online (\$900 per unit approx.) and hoping that internet does not let me down again.”*

*“Our son is completing his 5th year of economics law degree at home with University of New England and with only 15 GB data and no opportunity to increase this on this system he is struggling to complete the degree. We are also trying to run a farm grazing business and run out of data by the 2nd week of the month. This impacts our ability to run the business efficiently and be able to afford to pay uni and boarding school fees. We also have a daughter in Year 11 at boarding school and she is finding it difficult to complete assignments and study in the holiday period at home adding stress to the school term workloads.”*

*“Signal dropping in and out whilst trying to complete homework.”*

*“Very slow internet speeds as only able to access wireless. Always going over download in holidays as only on a small very expensive wireless plan.”*

*“Internet Connection was satellite then mobile broadband when kids at school. Connection very slow so trying to access information was tedious and at times difficult. Then when mobile broadband came along it wasn't, and still isn't, unlimited data like those in towns n cities, so accessing information, school newsletters, work, etc was limited by speed and data available. The plans available are also still very expensive compared to what is available in Sydney etc.”*

*“Satellite Internet is intermittent and cost a lot, plus with one uni student and one VCE in the house we run out of GB very fast.”*

*“Due to the slow internet they have trouble doing online programs.”*

*“The satellite system drops out when doing an air lesson with the REACT system. Leads to wasted time and frustration. Slow internet speed does not allow watching some of the material required by the school.”*

*“Satellite is very slow, cost a fortune, to download information for school with assessments etc takes 30 minutes sometimes longer.”*

*“Our internet and mobile coverage is not great and our children have found it difficult to complete tasks their schools and universities have requested. Our children have often had to go to our nearest town to the local library to do their work. Not easy when you live a distance from the town and they often need a number of days to complete their work.”*

*“When children are home from boarding school in school holidays & need to do study or research then we usually have to go to town to be able to use the internet. We pay over \$100 per month for 15GB of data & this is used very quickly when they are home. This is proving to be a huge barrier to my daughter who is home studying for her HSC trials at the moment.”*

*“Can't complete online homework/tasks due to extremely slow WiFi - drop outs.”*

*“Satellite service is also extremely unreliable. When my child has something she needs to complete for school we come to town and visit her grandmother to use her broadband.”*

*“Internet was down at a crucial time when an assignment had to be submitted. Lots of phone calls and a 50 km trip to get it in.”*

*“Can do assessments, slowly, in the first 15 days, then we run out of data. Have to wait till the end of the month to re set. The boys have to stay back at school to use their computers to get work finished, and that means a 130 km round trip to pick them up by car.”*

*“I would like to have therapy services via skype as I have a child with special needs but cannot access as my internet is too slow and I only have 2 GB per month.”*

*“Slow internet service and no mobile service dramatically limit educational opportunities.”*

*“Internet is expensive and very slow out in the bush. We don't get much data compared to people in town who are paying far less than we are. The kids use up all our data if they have a big assignment on.”*

*“We had to pay a good bit extra to increase the amount of data allowed so that my child could study during the school holidays. Our internet is VERY expensive!”*

*“Internet connection does not work often particularly at peak times which means my child can not complete the necessary work online needed for their education. Streaming of any video files etc is impossible with satellite internet as it is too slow and continually times out. Weather also has a huge impact on Internet and telephone connections both with the 'landline' and the mobile phone. For the mobile phone to work we had to purchase a \$700+ booster box for our mobile phones to even receive reception despite being told and guaranteed that we were in a 3/4G area.”*

*“We have had various internet connections over the years. We attempted a wireless system via an external aerial and now have a satellite connection. Both have issues with speed and congestion. Sometimes it is impossible to maintain an uninterrupted connection. This results in not being to access emails from teachers with files for home and class work and not being to upload assignments for marking. Often we can't view videos adequately which are set as homework. Satellite is limited to a capped MB allotment and no option to “buy more download “so often we are "shaped " with internet speeds being slowed significantly. Our landline is very sensitive to electrical storms and rain damage, and often it takes a long time to have the connection repaired.”*

*“Having to drive to town, or remain in town after sports training, for internet service to complete research projects and homework.”*

*“It affected my children when they had homework & research to do. When they came home from boarding school it was frustrating for them, especially during their final HSC year when they relied heavily on the internet to complete work that counted towards the final outcome of the HSC. They would also complain that not being able to stay in contact with friends or their friends not being able to contact them via mobile has an impact on their social life. And slow computers are frustrating & too slow for internet use.”*

*“Internet too slow/dropped out for the maths homework website, they were to log in for progressive work sheets on regular basis couldn't establish internet connection to e-mail assignment on time.”*

*“Exceptionally slow internet combined with minimal gigabytes means that we always run out of download the minute the children are home. So why come home, the mobile service is equally dodgy with one bar connection at best. The rest of the world has better and cheaper telephony services.”*

*“Internet can be slow making research difficult particularly for my children at High school and eldest now at uni. At times emails will not come through and important information can be lost.”*

*“No reliable internet so unable to complete projects. Son has learning difficulties so the Internet is more stimulating.”*

*“Ran out of Internet getting school work back to teacher.”*

*“Significantly, my daughter is completing her HSC and due to our internet service being so spasmodic and inefficient she has missed out on grades as assessments were unable to be researched and required internet tasks uncompleted.”*

*“We had satellite NBN but it was too slow to run educational programs like reading eggs, so we have to use Telstra 3GB via a booster system. Unfortunately Telstra is extremely expensive.”*

*“We are only able to get 20 GB of satellite, it is very slow and not enough for our children to research for their schoolwork and access their online studies - it is so inefficient and beyond a joke. I actually had the satellite company slow it down further as they accused us of using all our allowance and they consider that we use too much too quickly!”*

*“Limited speed and download stop children accessing educational videos and information online.”*

*“Additional teaching support is provided via phone and access to school satellite react system is very beneficial. Access to internet is good but slow at times during high demands on the satellite system.”*

*“Not only does the lack of opportunity to increase internet data impact negatively on our children's education, our mobile coverage in the house is poor. This impacts on our business and communication with our children when they are at boarding school. Communication with teenage children living away from home is critical to the well being and health of the child.”*

*“Our providers are also limited too. If I lived in Sydney I could get unlimited internet access for half the price I pay to get 12 GB!! And not have the whole thing slow down if I happen to go over my allowance. Our exchange is also apparently limited by the number of people accessing it at any one time so that can slow down the availability and access to the mobile and internet signal.”*

*“Internet access at home, near Narrandera is hopeless. We send our sons to boarding school in Sydney but Internet access at the boarding house is unreliable but ok in the school. Getting homework and assignments done during the holidays is frustrating due to limited downloads, slow and unreliable.”*

*“School work is near impossible to do at home, internet access is extremely poor. Most of the school assignments are given via the schools email streams, a lot of research internet pages are required to complete the assignments. This past holiday of a two week period my daughter has had to go to town on five separate occasions so she could access the internet to complete her assignments, and we still have one week of holidays left... Internet and mobile is very expensive, especially when they don't work properly...paying for a service that we cannot use 60% of the time.”*

*“Because we live in a black spot we are unable to neither complete homework via the internet nor research anything for assignments in Primary school. Our eldest is at University but cannot complete study at home as there is no internet to access her research. During HSC year we would go to town get internet service download everything we could, save it all, then use it at home for studying for the HSC. I believe our child was disadvantaged during this time and it did affect her studies.”*

*“All emphasis is now upon internet connection for communication, so slow or intermittent internet impacts their education.”*

*“I would like to have better access to Internet connection and speeds so that I can have uninterrupted access to online education and continuing professional development opportunities in the form of online webinars. My profession is in medical imaging, so access to higher monthly download allotment would be invaluable for viewing images and videos of case studies. In our area we are very limited for choice of provider, better coverage for all providers would improve competition and therefore access in our area”*

*“It is really expensive and very slow as we are not in a great area. If he didn't attend boarding school it would be a serious disadvantage to his education.”*

*“When I haven't received important emails or when I received them late from the schools it has caused some problems. When your children are away from home at boarding school, it is very important to maintain communications & be available to receive emails. Many teachers communicate via emails with parents.”*

*“We have been using the NBN for the last couple of years and have just recently had our limit reduced from the previous package of 50GB (for \$60 a month) to now a limit of 3GB. From my research the most we can now choose to increase our NBN package to 20GB a month for \$60. Prior to this year, my three now primary school aged children have studied at home in our farm's school room, using a combination of Distance Education and Board of Studies registered home schooling. The internet has been enormously important for the children's schooling. In particular, it allowed all three children to be tutored in a musical instrument (drums and piano) using Skype and FaceTime to interact with their tutors. Our remote location meant that this was the only possible way a drumming tutor in particular could be accessed. Access to a piano teacher would have meant a 3 hour round trip on dirt roads. Access to instrument lessons was only possible because of the greater data usage limit and faster speed using the NBN. It would have been impossible on our previous satellite package. The NBN allowed our two BOSTES registered, home schooled children to access educational resources specific to the school curriculum that they would not have otherwise been unable to access. We used the Internet via the NBN for example to view videos on Australian History, to watch models of how planets move within the solar system and others on how light refracts through lenses. I used the Internet via the NBN to locate and purchase resources like the photographic equipment we used to study light in a Science unit. In another Science unit we got support online from a LEGO in education expert, when we used LEGO to study machines. When Maths required that the children ask questions and tabulate the answers, we used social media online to ask family and friends the questions and get rapid responses. The two older children have blogs that they used to publish their work, providing them with an audience for their writing that they would have otherwise not had. I have one child who has dyslexia. It is very important to him and to our family that he has been able to still engage with books and reading through using the Internet NBN to download audio books from the District library and the Vision Australia library. He also downloaded Audible audio books and Amazon Kindle audio books which sync together on his Kindle Fire. Doing this he was able to participate in the NSW Premier's Reading Challenge in 2014. He is rightly proud of his certificate. This sort of Internet use requires a large data package with usable speeds. I should mention that I am grateful that living in NSW has given us the opportunity to have and use a school computer and satellite system that was provided by the Distance Education school. That was separate to our own home satellite internet service. I want to be clear though that our own home satellite system is also very important to our family as the majority of my examples here are things that we could never have done on the Distance Education computer, owing to the rules and downloads associated with it. Indeed we no longer have that computer. This year we have established a second home in Orange solely for the purpose of educating the children in mainstream school. The children and I miss my husband/ their father terribly but we know that we do this to achieve our goal of the best education we can provide for them. Our daily routine includes phone contact with Dad. We would like to be able to Skype with him every night, instead of using the telephone, but the current Internet package does not make this practical. I think that the immediacy that this would provide would be helpful for our youngest, aged six, in particular. I remember years ago seeing Apple ads for iPhones that featured FaceTime and thinking how lovely that children could be closer*

*to parents who might be away from home for work. The actual speed and data usage limit on the package available now on NBN means that my husband, at night on the farm, phones rather than Skypes with us. I recently took photos of the weekend's activities for him to share in the day's sport, play and gardening. It took so long for the (reduced file size) emails to come in, at his end i.e. using NBN that the screen timed out. Now that I am in Orange I often see adverts for NBN Internet that promise great packages. Indeed my data package in Orange is 250 GB a month and has very fast speeds. The disparity seems unfair. What of my neighbours in the district who are starting the schooling process? Will my children be able to use the Internet when they return home for school holidays and weekends? How will it affect my children to "see" less of Dad? How is this equitable for our family? I am grateful that we had a decent sized data package for 2013 and 2014. Where would my children's education be if we had not had that larger and faster data package? How can isolated children compete with capital city children for scholarships and places in their school of choice, if, on top of not having access to museums and musicians, libraries and the like, they have a lesser quality Internet to use? We can't assume that reserving part of the NBN for Distance Education students will see all remote and rural students get what they deserve. I believe it is imperative that parent bodies in Distance Education schools lobby to ensure that remote and rural students, in particular in primary school, get high quality teaching through rigorous and abundant use of the Internet. I believe it is unfair to those students to lessen their internet lessons to save bandwidth/download or speed for the other students who enrol in Distance Education who DO have physical proximity to the resources of schools and libraries. I would like to see the provision of large and fast data packages as a very high priority for the satellite NBN program. It is not good enough to expect rural and remote Australians to only use Internet for quick emails and brief banking. We need and deserve to be equal to the rest of Australia."*

*"I am a school teacher and I see every day the significant disadvantages my students are exposed to every day. Whilst they have good internet access at school they are at a significant advantage when they go home. Many rural students do not have adequate internet access at home as they are unable to access ADSL Internet if they live more than 5kms from town. This has a significant impact on their education. Lack of Internet and next G service needs to be addresses to stop rural and remote students falling even further behind students in urban areas."*

*"When education is the future of our children it is extremely frustrating not to be able to offer them an adequate service at home and also the cost of the system is far too expensive compared to ADSL/broadband that people in towns/cities are offered."*

*"Studyladder, Khan Academy, google searches, email, etc. The internet is essential for a balanced, in depth education."*

*"Access to limited internet speed, resulting in limitations with online learning activities."*

*"External university student who cannot access the download required to download lectures required for learning. Attempting assignments and exams without having been able to access all lectures. Is paying monthly for a large download package that can't deliver in the Conargo area."*

*“Limited download available per month, we use internet to run our farm business, our volunteer community organisations and our children need it for study and homework. We also rely on it to communicate with them whilst some are at boarding school and also for communication for the school. The limited download does not keep up to all family demands.”*

*“Slow internet during the years we had a DE schoolroom 1994-2007.”*

*“When trying to do distance education on line lessons were slow and cumbersome.”*

*“In the afternoon early evening when children are trying to do their homework, editing work they have done at school over the Internet, reading eggs and mathletics where need to be able to download work set by teacher 3G wifi network always dropping out.”*

*“We cannot access online private tutoring for one of our children who requires tutoring. We live over 200kms from the private tutoring organisation but the Satellite does not support the online Video tool. Satellite internet currently with the 20gb limit is difficult for doing school assignments as research online is limited, we cannot view educational documentaries on YouTube etc.”*

Current internet speeds for rural schools can be quite slow which is frustrating for students and staff. For example, it is difficult to access mathletics and reading eggs in a timely manner as well as perform online administration tasks:

*“We previously lived in Booligal. We taught at the school there and our children attended the school. We only had satellite which was poor and did not support the educational needs of the students. Students had times of not being able to connect to the Internet; they were not able to use the connected classroom that was provided to the school.”*

*“The current & future of education in Australia, and perhaps the world, has become very internet based. My children are regularly encouraged to access the internet & use tools like "you tube" and mathletics and spelling based internet programs. The primary school has just issued chrome books to all the students & they can access their work at home through the chrome books. With the internet that we currently have my children are unable to access all these sites and I believe they are slowly being left behind. The look on my 8 year old sons face during school assemblies when all the children are getting "mathletics" certificates and he is unable to use it at home is heart breaking.”*

*“At Clare Public School, the children each have an iPad and it has apps that have been downloaded for each individual child. The children also use mathletics and reading eggs online and this has been productive for them, however the satellite internet does make the learning process very slow for them. It is difficult to do homework at home as all houses are on satellite which is particularly slow at night time.”*

*“At school can't access school learning programs due to very slow internet speeds. At home pay extreme amount of money for Internet service so can't always use it on school projects as it affects the home budget.”*



ICPA-NSW is also aware of a number of members who could not participate in **Regional Telecommunications Review Webinars**, due to **limited Satellite internet access**. ICPA-NSW hopes that the NBN Long Term Satellite Service will also include rural schools that are on satellite.

**Question 10. What communication functions (for example, speed, mobility, reliability, data, etc.) would best suit your needs, noting the limitations of each technology (for example, mobile, wireless, satellite, fibre)?**

Distance Education is usually done from a home classroom, usually with a parent or paid supervisor. **ICPA-NSW obviously believes that the NBN Fibre would best suit the needs of children studying by distance education, to give them an equal access to the same technology as their city counterparts.** Given the remoteness of these locations, we are however, realistic in our knowledge that this may not be achieved for a very long time, if at all. **Distance Education students need a maximum download of at least 30 GB per month to accommodate appropriate educational interactions between student, teacher and class and it is imperative that either satellite or mobile technology provides this.**

*“I feel that having mobile coverage would allow us to have a 2nd device (iPad etc.) connected to a wireless internet connection, allowing both children access to the internet at one single time, with 2 children, both having 1-2 satellite lessons per day - it limits the time the other can use the computer for researching, mathematics, reading eggs etc. Particularly for older students with several children in the classroom at one time.”*

*“WiFi would enable more access for the children, as we would then be able to use other pieces of technology thus allowing both school aged children to use technology at the same time.”*

Some ICPA-NSW members have experienced improved internet functions that have directly had positive educational outcomes. This was reflected in our recent survey and reinforces the importance of high speed technology to enhance education:

*“Switched to broadband satellite was a huge improvement. Prior to this my kids barely used the internet as it was just too slow for them to source information. If researching for an assignment, they would only read through the first one to three search results to glean information as it took too long to find a really good informative site. They spend more time now reading and learning instead of mindless boring waiting. This has been a fantastic improvement as it sees them engage with interest stimulated again. Slow internet has taught them patience and they do appreciate having better internet these days.”*

*“It enables them to research and access the same programs they use at school.”*

*“Our internet speed is good when operational which means the kids don't lose interest when working, researching and accessing sites - it keeps them engaged and helps them to complete tasks/sessions - rather than sites timing out or not responding.”*

*“Being able to keep in touch when back at boarding school. Being able to be kept informed via email of what is happening. Just being able to keep in touch.”*

*“Ability to network with others in an isolated situation.”*

*“We moved farm and moved further from town but were able to go from satellite to mobile 3G - much better and less expensive.”*

*“When the connection is adequate we are pleased to have access to the Internet for research needed to complete assignments.”*

*“When we can get the Internet the stimulating learning opportunities are worth it.”*

*“Yes it enables them to connect with their class teachers and peers.”*

*“We are extremely lucky to have broadband on phone line and a good Telstra deal. If we were further from the exchange this would not be possible. Local alternatives are far less reliable and more expensive. We also have some degree of mobile service - if phone left in right place, can at least get messages. Education includes school friends and contact out of hours - my kids are able to keep in touch on Ipads and again, we are so fortunate to have broadband. I can see the difference that it makes to the kids to have this access and to have it almost all the time.”*

*“Ability to use videoconferencing to access speech therapy for students through Royal Far West on a weekly basis. Also, the ability for whole classes or groups to videoconference with other schools, so that the children get to interact with children from other schools in different areas - who have different lifestyles & whose parents have different occupations. Use of the internet has made accessing information for educational purposes, a totally different ballgame - a very positive advance for all students & teachers. Resources for teachers are readily available on the net, which has made accessing these much easier than in previous times.”*

*“We are fortunate to have fairly good mobile service coverage so we are accessible for our children to contact us easily whilst they are at boarding school.”*

**Q11. Do we need to continue to guarantee the standard telephone service for all (or only some) consumers, and if so, to what extent?**

**Yes, the USO is a priority for people in rural and remote Australia where the landline (STS) is often the only form of telecommunication, the USO ensures that it is an affordable and reliable service.** With only a very limited number of Telstra technicians on hand to repair the ageing Digital Radio Concentrator System (DRCS), combined with the fact many of these services are the only form of telecommunication offered (i.e. located in areas without mobile phone service). **ICPA-NSW strongly believes that standard telephone services should continue to be guaranteed to those consumers who have access to no other telecommunication networks.**

An example of where the USO has failed is users of the Digital Radio Concentrator System (DRCS) covered by the USO after their first upgrade, moved to the CDMA Wireless local loop which was covered by the USO. The next upgrade moved to the Next G Wireless link.

Remote customers were given the option to go on a satellite service but were advised by Telstra that the Next G Wireless link was the better option (approximately 4000 customers) as a more reliable service because it used the latest Next G mobile technology. Customers were advised that NGWL was not supplied in fulfilment of the USO due to preselection not being able to be offered.

The NGWL remote customer's often only telecommunication link is not covered by the USO.

**The Louth area is experiencing considerable problems with their reliability of their landline telephone service which is currently delivered by the Next G Wireless Link (NGWL).** The NGWL has been out six times since the New Year. This meant no landline phone, very limited mobile coverage (often none at all) and limited internet service as it is predominantly operates via the NGWL.

#### Case Studies in the Louth area

- Out three weeks in December, two weeks in January, reported fault 25<sup>th</sup> January 2015, technician fixed it on the 9<sup>th</sup> February 2015. A personal interim phone service (a satellite phone with calls at landline rates) was offered as the family had no mobile coverage and no internet once the landline was out (NGWL). They accepted the satellite phone service but Telstra came back and said it couldn't be installed as a technician was required to attend the property to set it up and that it couldn't happen until the day they attended to fix the fault.

Other customers in mobile service were able to divert to their mobile phones.

- December; 11 working days, 15 days in total no mobile coverage, no internet. Consequences: students missed out on valuable phone lessons, music lessons and the ability to speak verbally to teachers. This has been especially noticeable for those students completing their education before moving on to boarding school.
- The customer reported the fault 5<sup>th</sup> December 2014; a technician was due to repair on the 10<sup>th</sup> December 2014 however, the technician failed to attend to the fault. A new date of 16<sup>th</sup> December 2014 was set and once again the technician failed to attend to the fault.

Conflicting information regarding satellite phone, cannot offer a satellite phone as:

1. Require a technician to install
2. Availability restricted to medical priority customers

Telstra have previously cut staff and operating hours for the specifically dedicated call centre (RRADIO) that deals solely with the rural and remote services DRCS and NGWL. This has resulted in customers being diverted to the general faults area after office hours who are not equipped to deal with these issues and members becoming extremely frustrated when trying to explain their issues.

ICPA-NSW is currently seeking advice from Telstra on the eligibility now of the Next G Wireless Link (NGWL) service being covered by the USO since the Deregulation Bill was passed in March 2015, removing preselection.

Telstra's response to date: "We are actively investigating the possibility of transitioning NGWL into a compliant USO STS service. Once that feasibility analysis is complete we will have a better view as to whether this can be provisioned to meet all our USO STS obligations."

ICPA-NSW is concerned that other faults that are covered under the USO are being given priority. If this is not the case then more technicians need to be deployed to cope with the current workload as two to three weeks, often without the only form of communication is unacceptable. There is only one technician deployed in the Louth area, there used to be three.

**Q12. Are there new or other services, the availability of which should be underpinned by consumer safeguards?**

Internet Services that are essential towards the education of children in rural and remote areas should be underpinned by consumer safeguards. **Online technology is now paramount towards connecting distance education students to their teacher and those reliant on internet service for education should be included as a priority under consumer safeguards.**

On 12<sup>th</sup> March 2015, ICPA-NSW attended the Australian Communications Consumer Action Network (ACCAN) forum discussing the current Universal Service Obligation (USO).

There was a great deal of discussion with differing views but all pointing towards changing the framework of the USO. Consensus was that a lot more consumer discussion needs to take place but the biggest problem is the new 20 year contract with Telstra, so any reform would need Telstra's approval. Currently, the USO only covers the standard telephone service and pay phones - mobiles and broadband are not included. There is the need to improve the delivery of the USO as this framework has remained unchanged over the last 25 years yet there has been significant technological change. There was also discussion around whether the NBN is capable of delivering high quality voice and what this could mean for the USO.

ICPA-NSW are concerned that the new NBN services are offered on an equitable basis to all people regardless of where they live or do business and will this translate to an effective and efficient provision and maintenance of the service? There has been no mention of any safeguards underpinning these new services and for people living in rural and remote areas this is a priority.