



20 March 2020

SA Fire & Emergency Service Commission
South Australian 2019-2020 Bushfire Review
GPO Box 2706 Adelaide SA 5001
via email: BushfireReviewSubmissions@sa.gov.au

Dear Mr Mick Keelty,

Re: Independent review into South Australia's 2019/20 bushfire season

The Australian Communications Consumer Action Network (ACCAN) thanks the South Australian Fire & Emergency Service Commission for the opportunity to contribute to the independent review into South Australia's 2019/20 bushfire season.

ACCAN is the peak body that represents all consumers on communications issues including telecommunications, broadband and emerging new services. ACCAN provides a strong unified voice to industry and government as consumers work towards communications services that are trusted, inclusive and available for all. We represent the views of our broad and diverse membership base, which includes groups such as community legal centres, disability advocacy organisations, indigenous organisations, farmers' federations, financial counsellors, parents' groups, regional organisations, seniors organisations, and other individual members.

While acknowledging the devastating impact that the 2019/20 bushfires had on communities, ACCAN's following comments relate to the impact of bushfires on communications infrastructure and reliability, and in turn how this affected communications consumers. We are interested in how all communications consumers were affected by bushfires, and also consider the more specific impact of bushfires on regional, rural and remote consumers, seniors, and consumers with disability and any vulnerable members of the community. Public safety is paramount, particularly during national disasters, and the resilience of communications infrastructure can help to protect members of the community.

Prevention

It is ACCAN's position that all efforts must be made to prevent bushfire damage to mobile and NBN infrastructure. All relevant stakeholders from the telecommunications industry must work collaboratively with fire services, emergency services personnel, the energy industry and local, state, territory and federal governments to protect telecommunications towers, mobile base stations and remote exchanges, as well as power substations. Part of this work would likely include

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reducing leaf litter or debris, mechanically thinning vegetation or performing other hazard reduction activities in bushfire-prone areas near these important assets.

Such collaboration is necessary so that governments and fire services alike have a clear understanding of where communications infrastructure is located, how it can be protected, and what the impact would be if such infrastructure were to be damaged in a bushfire. The roles and responsibilities of these actors must also be made clear in order to prevent damage to infrastructure, but also to ensure that any damaged infrastructure can be fixed in a timely manner. This could include training for fire fighters, volunteers and other emergency services personnel regarding the resilience of communications services.

ACCAN also believes that consumer education and awareness raising has a role to play in preventing consumers from losing access to essential communications services. To prevent consumers from being caught without access to emergency services, consumers need to be informed about the reliability of communications services during emergencies, as well as what back up options are available to them.¹ Clear and concise information about the potential limitations of communications services during power outages and emergency situations must be provided by retail service providers, NBN Co and state and territory governments.² Such information should also be provided to consumers before any planned power outages, so that they can charge mobile devices and ensure they have measures in place to remain connected.

Preparation

Communication consumers have raised concerns with ACCAN around the resiliency of mobile, fixed and NBN networks during emergencies. This is a particularly important issue for regional, rural and remote consumers who often rely on landline connections in emergencies.³ Other groups, such as the National Council for Fire and Emergency Services (AFAC), have been concerned about NBN failures in disaster situations for more than two years.⁴

While some communications consumers have expressed concerns about the reliability of communications infrastructure, others are unaware of the possible impacts that fire and other natural disasters can have on NBN networks, including

¹ ACCAN, 2020. 'Digital Technology Hub – Consultation Paper: Submission by the Australian Communications Consumer Action Network to the Department of Infrastructure, Transport, Regional Development and Communications', p12. Available: <https://accan.org.au/our-work/submissions/1698-digital-technology-hub>

² Ibid p11.

³ Ibid p11. It is also worth noting that while battery backup is an option for some FTTP consumers, these batteries only last around 5 hours. In emergency situations towns can be left without power for days.

⁴ As reported by the ABC, 2020. 'Telco, NBN failures during bushfire crisis reveals cracks in regional, rural crisis coverage.' 13 January 2020. Available: <https://www.abc.net.au/news/rural/2020-01-13/are-australias-telecommunication-up-to-the-new-kind-of-megafire/11860238>

voice-only NBN services. It is therefore essential that clear and concise information be provided to communication consumers in a range of accessible formats to ensure they have an appropriate understanding of what to do to prepare for an emergency or disaster situation.⁵

NBN Co recommends that consumers create an emergency communications kit in case of emergency.⁶ They recommend that such a kit include a charged mobile phone, portable mobile battery pack and battery-powered radio. It must be recognised, however, that not all consumers will have the ability to create an emergency communications kit. Some consumers may not be able to afford these devices, or these devices may not be accessible to them. For instance, ACCAN has received feedback that mobile battery packs available in Australia are not accessible for people who are blind or have vision impairment. Similarly, battery-powered radios may not be accessible for people who are blind or have vision impairment; nor are they accessible for people who are Deaf or have hearing impairment.

Due to accessibility and affordability concerns there must be multiple sources of information available to the public regarding preparation for emergency situations. Written messaging around preparation must be clear and easy to understand and must be provided in a range of accessible formats, including Easy English, Auslan, plain English, braille and large print. To appropriately support the community to prepare for emergency situations, video-based information on television, online or on social media must also include:

- The provision of high quality open captioning and Auslan interpreting of TV broadcasts about emergencies (with broadcasters ensuring that Auslan interpreters are included in broadcasts and not cropped out);
- The reading of any “tickertape” or written information on emergency broadcasts via voiceover to ensure this information is accessible for people who are blind or have vision impairment.⁷

Furthermore, any in-person community briefings must be held in fully accessible venues with features such as hearing loops, live captioning and Auslan interpreters freely available.⁸

⁵ ACCAN, 2020 op cit., p11.

⁶ More information available: <https://www.nbnco.com.au/blog/the-nbn-project/preparation-key-to-staying-connected-in-an-emergency>

⁷ As discussed in ACCAN's 2011 report regarding the Queensland flood disaster, available:

<https://accan.org.au/our-work/research/297-the-queensland-flood-disaster-access-for-people-with-disability>

⁸ For more information about communications in emergency situations, see: Australian Government Attorney-General's Department, 2013. 'Communicating with People with Disability: National Guidelines for Emergency Managers – Handbook 5', available: <https://knowledge.aidr.org.au/resources/handbook-5-communicating-with-people-with-a-disability/>

ABC local broadcasting played an important role in providing up to date, accurate and relevant information throughout the 2019/20 bushfires. As such, it is vital that the ABC is adequately funded to continue to provide this information across a range of platforms. Such tailored, local information must be funded at all times, not just during natural disasters. This multi-channel, multi-platform provision of information is necessary to build in greater redundancy in the provision of information.

Furthermore, information or alerts provided by SMS must also be provided over a range of technologies. Providing these messages over both the mobile and satellite networks, for instance, would increase built in redundancy and ensure that these vital messages are more likely to be received by those caught up in emergency situations regardless of the platforms they have access to at the time.

ACCAN advises against an over-reliance on radio and other mainstream services or applications for the provision of emergency information for consumers. For example, apps showing maps of areas affected by fires or power outages are not always accessible, and media reporting that relies on or refers exclusively to these maps may leave people who are blind or have vision impairment with limited information about where bushfires are currently located or what actions they should take.

Another crucial aspect of preparation is ensuring that all consumers have equal access to the emergency call service (through either 000, 112 or 106). Currently people who are Deaf or have hearing or speech impairment do not have functionally equivalent access to the emergency call service. For instance, National Relay Service (NRS) users without access to the internet may have to rely on SMS relay to contact emergency services. This is not a real-time communications channel. To help address this, next generation Triple Zero services, including direct text to Triple Zero, must be introduced to ensure equal access for all. All NRS users must also be ensured guaranteed access to the emergency call service. Similarly, it is ACCAN's position that the emergency call service must remain contactable through SIMless devices. Maintaining the existing ways through which people can seek assistance, in addition to increasing the contact options available, will help to ensure that all consumers have consistent and appropriate access to Triple Zero and emergency services.⁹ Finally, all efforts must be taken to ensure calls can be routed as quickly and easily as possible to local emergency service organisations.

Maintaining access to communications requires the protection and prevention of damage to power substations, as widespread mains power loss can cause communications network outages.¹⁰ As such, preparation efforts must involve greater collaboration, information sharing and relationship building between

⁹ ACCAN, 2019. 'Contacting Emergency Services via SIMless phones – policy position'

¹⁰ As was demonstrated in the 2019/20 bushfires.

telecommunications providers and energy companies. This must include improved communications around when power substations are being powered up or down. For example, if a telecommunications provider is told by an energy provider that they are pre-emptively powering down their power substation for a period of time, the telecommunications provider will be able to make a more informed decision around the efficient use of their resources, such as whether to deploy a technician to an affected site. The need for greater collaboration between telecommunications and energy providers could be incorporated into federal, state and territory bushfire preparation plans or emergency management plans. ACCAN recommends that any existing bushfire preparation or emergency management plans be reviewed to ensure that telecommunications providers and NBN Co are sufficiently engaged in emergency preparation and response.

It must be acknowledged that even though mobile towers often have backup batteries and diesel generators, these will eventually run out during extended power outages. ACCAN is concerned that consumers whose NBN-based services will not work in a power outage are left particularly vulnerable in these extended power outage situations. This vulnerability is heightened if fixed voice and mobile services are unavailable, as people will not be able to call for help in emergencies.¹¹

ACCAN supports recent calls for telecommunications providers to be recognised as ‘essential users’ of liquid fuel, and for them to receive priority access to diesel to run backup generators during national fuel emergencies. We support the inclusion of communications providers in the relevant legislation.¹² ACCAN also supports the development of a national common operating model for telecommunications disaster management and look forward to providing feedback to Communications Alliance regarding their forthcoming draft protocol.

Response

Carriers are largely responsible for their own networks and put individual measures in place to restore power or service. This may involve the pre-deployment of generators or solar panels.¹³ ACCAN is not aware to what extent carriers pre-deployed generators or solar panels with the aim to maintain power to essential communications infrastructure during the recent bushfires. It would be good to know

¹¹ Computer Weekly, 2020, ‘Australian wildfires take toll on telco networks’, available online:

<https://www.computerweekly.com/news/252476912/Australian-wildfires-take-toll-on-telco-networks>

¹² The Essential Users Determination under the *Liquid Fuel Emergency Act 1984*.

¹³ As outlined by Mr Kathage on 3 March 2020: Commonwealth of Australia, 2020. Proof Committee Hansard Senate: Environment and Communications Legislation Committee, Estimates. Tuesday 3 March 2020, Canberra, p49, available: https://parlinfo.aph.gov.au/parlInfo/download/committees/estimate/c9f0f8f9-a8bd-44cc-b138-91154a03fbb0/toc_pdf/Environment%20and%20Communications%20Legislation%20Committee_2020_03_03_7598.pdf;fileType=application%2Fpdf#search=%22committees/estimate/c9f0f8f9-a8bd-44cc-b138-91154a03fbb0/0000%22

whether there was sufficient resourcing (both of technicians and materials) to pre-deploy this type of equipment in response to emerging bushfire risks. Nevertheless, we acknowledge that backup batteries and generators have a finite capacity that would not outlast extended power outages. As such, ACCAN acknowledges that major telecommunication providers and the NBN mobilised quickly to fix damaged infrastructure where this was possible.

At the peak of the bushfires, around 100 telecommunication sites were down, with more than half of these base stations being brought back online within four days.¹⁴ In some instances, however, services have taken considerably longer to restore. For instance, Telstra customers in parts of South Australia experienced two months of limited to no mobile and internet connection¹⁵ as a result of severe damage to Telstra's Mount Torrens site. Telstra explained that given the severity of the damage to infrastructure, they had to order new parts and equipment which contributed to the delays to restoring services.¹⁶ Interim measures, including cells on wheels, were arranged by telecommunications providers to keep people connected while services were being restored.¹⁷ Consumers in affected areas were also eligible to receive assistance packages from telecommunications providers.¹⁸

On 1 January, NBN Co reported a peak of about 20,000 service outages.¹⁹ NBN Co deployed technicians, generators and Road Muster trucks to keep consumers connected, and installed temporary satellite access at evacuation centres, including on Kangaroo Island, to provide internet services.²⁰ Reports differ around the length of time it took NBN Co to restore services – some state that normal service was restored within days,²¹ with others stating it took around two weeks for these services to be fully restored.²² We understand that the timing for repairs was affected by the ongoing nature of the bushfires, which hampered safe access to damaged base stations and infrastructure for technicians.²³ Telecommunications providers and

¹⁴ As outlined by Mr Atkinson on 3 March 2020: Commonwealth of Australia, 2020 op cit., p4.

¹⁵ The Adelaide Hills News, 2020. 'Back online: Phone and internet reception to return to fire affected Hills homes by end of week', 20 February 2020. Available: <https://www.adelaidenow.com.au/messenger/adelaide-hills/back-online-phone-and-internet-reception-to-return-to-fire-affected-hills-homes-by-end-of-week/news-story/3b8fbd65020fce7d65401032654792a9>

¹⁶ Ibid.

¹⁷ The Islander, 2020. 'Telcos learn to keep connected under fire', 13 January 2020. Available: <https://www.theislanderonline.com.au/story/6577169/telcos-learn-to-keep-connected-under-fire/>

¹⁸ As discussed in further detail below.

¹⁹ Mr Atkinson: Commonwealth of Australia, 2020 op cit.

²⁰ As outlined by Mr Williams on 3 March 2020: Commonwealth of Australia, 2020 op cit., p123.

²¹ Computer Weekly 2020 op cit.

²² Mr Williams: Commonwealth of Australia, 2020 op cit.

²³ Ibid p49.

NBN Co worked collaboratively with emergency service personnel, including the Australian Defence Force, to restore these essential services safely and securely.²⁴

While recognising the huge impact that Road Muster trucks had in keeping people connected, ACCAN believes that more could be done to reduce potential connection delays. To better prepare for and respond to future natural disasters, evacuation centres should be equipped with Sky Muster technology that would be activated as needed. This would ensure connection resiliency is maintained while preventing the need for Road Muster trucks to be deployed, as these may or may not be able to access disaster areas in a timely manner. In addition, ACCAN would like NBN Co to consider how Sky Muster can be better used to support small businesses (and their consumers). For instance, could Sky Muster be used to service EFTPOS to keep small businesses connected and to support local communities through emergency situations? Ensuring small business cash flow through more resilient EFTPOS connections would not only help support local areas but would also improve the ability of people to access services they need, such as food. ACCAN supports research and trials using Sky Muster for EFTPOS, and believe this is a priority for all outages, not just outages during natural disasters.

Like Road Muster, payphones have also played a vital role in keeping people connected during the 2019/20 bushfires. Telstra made payphones free for all to access for local, national and standard mobile calls.²⁵ They also allowed free use of the Telstra Air Wi-Fi network at locations where payphones were equipped to provide this. This service was proven to be essential during emergency situations, and therefore must be carefully considered in future discussions regarding payphone availability, cost and placement.

Recovery

ACCAN acknowledges and appreciates the assistance packages that are being provided by different telecommunications providers. These initiatives, such as providing free call diversion to any mobile or fixed phone number, extended timeframes for bill payments, or free prepaid credit,²⁶ will likely support a range of consumers to remain connected in the aftermath of the bushfires. However, we would like to see greater standardisation of assistance packages between retail service providers, to ensure that bushfire-affected communications consumers of smaller providers do not miss out on necessary assistance and support. ACCAN believes all providers should be providing free call diversion and data-free access to

²⁴ The Islander, 2020 op cit.

²⁵ Telstra, 2020. 'Making payphones and Telstra Air free for all and mobile emergency websites free for our customers', available: <https://exchange.telstra.com.au/free-payphones-and-hotspots/>

²⁶ Information available: <https://accan.org.au/hot-issues/1684-telco-bushfire-response>

emergency services and recovery-based websites, such as the National Bushfire Recovery Agency website and related pages.

ACCAN welcomes the development of the National Bushfire Recovery Agency,²⁷ and the extensive information that is provided on the Agency's website. We would, however, like to see more information provided for people with disability, including information about how to contact the Agency and other essential recovery services via the NRS. People who are Deaf, deaf, or have hearing or speech impairment must be provided with clear and straightforward information about how to get recovery assistance, as well as about how to contact emergency services via the NRS.

In terms of recovery, some important discussions will need to happen regarding network redundancy and resiliency. Appropriate sources of redundancy must be identified and appropriately deployed to ensure that consumers remain connected in emergency situations. It is not appropriate to place the onus for redundancy onto consumers – as outlined above, there may be a range of reasons why consumers may not be able to afford or access a mobile service if their fixed line connection fails.

In relation to network resilience, some commentators have called for telecommunications infrastructure to be buried underground,²⁸ and our understanding is that some fire-damaged NBN infrastructure may be rebuilt underground.²⁹ The general reliability of underground infrastructure, as well as its reliability in natural disasters (not just bushfires, but also floods) should be a topic for further industry discussion. Industry conversations about future network design and maintenance must similarly prioritise quick and easy restoration (particularly of backhaul) to ensure communications consumers stay connected.

Another point of industry discussion should be the resiliency of different providers' NBN services. It has been reported, for instance, that Vodafone's NBN service may be more resilient due to its 4G mobile backup, which allows the modem to use the mobile network, where this is available, in the event of a fixed line disruption.³⁰ Recovery efforts must include considering how to improve the physical resilience of the communications network and how to ensure greater redundancy to better protect and support communications consumers in emergency situations.

ACCAN believes that the Regional Connectivity Package and Mobile Black Spots program could help support areas ravaged by bushfires. Both initiatives need to

²⁷ Available: <https://www.bushfirerecovery.gov.au/>

²⁸ ABC News, 2020 op cit.

²⁹ For instance, in Mallacoota. As outlined by Ms Dyer on 3 March 2020: Commonwealth of Australia, 2020 op cit., p122.

³⁰ Computer Weekly, 2020 op cit.

address communications shortfalls in bushfire prone areas. More specifically, we would like to see funding for Mobile Black Spots in bushfire prone areas be fast-tracked, in order to help get these communities back on their feet. We would also like to see the Mobile Black Spots program expanded to include boosters, repeaters and other equipment that can be used to extend coverage.

Finally, ACCAN would also like to see the industry review the use of satellite phones, mesh networks and other alternative forms of technology to keep emergency services workers connected during disasters. Satellite should be further explored as a means to achieve greater redundancy.

Thank you for providing this opportunity to provide feedback on the South Australian 2019/20 bushfire season. Please do not hesitate to contact me should you require any additional information about any of the topics we have raised in our submission.

Yours sincerely,

Meredith Lea
Disability Policy Adviser