PEOPLE WITH DISABILITY AUSTRALIA

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The Director - Telecommunications Deployment Policy
Digital Inclusion and Deployment Branch

Delivered by email to powersandimmunities@communications.gov.au

Dear Sir or Madam

Re: Amendments to the Telecommunications (Low-Impact Facilities) Determination 2018 and Telecommunications Code of Practice 2021

Thank you for the opportunity to respond to the proposed Amendments to the **Telecommunications (Low-Impact Facilities) Determination 2018 and Telecommunications Code of Practice 2021**. People with Disability Australia (PWDA) is the national peak body representing the 1 in 5 Australians with a disability.

We agree that digital connectivity is important to all Australians, and it has expanded opportunities to access employment, education, supports, assistive technology, services and community for many people with disability. However, PWDA is particularly concerned with the redundancy and resilience of the communications network. Our members have raised issues related to the loss of communication networks with us during the 2019-2020 'Black Summer' bushfires.

In emergency situations all Australians depend on our communications infrastructure to prepare, stay informed of hazards, combat risks, communicate with others, plan and manage their escape. In rural and regional areas where hazards like flooding and fire are more common, emergency services and communication infrastructure is more sparsely distributed, making reliable telecommunication services even more important.

People with disability face added challenges in emergencies that increases their need for reliable communication. They may:

A voice of our own

- be unable to drive a motor vehicle
- have no access to accessible public transport
- face access barriers to emergency shelters
- depend on interpreters, devices or applications that require connectivity to help with communication, or provide alerts in emergencies
- need to use assistive equipment that can become inoperable during power interruptions, or that will not be able to be evacuated with them
- depend on assistance animals who emergency plans do not account for in evacuation processes
- need accurate, timely information to avoid specific hazards- such as smoke for people with respiratory conditions

In order to manage their needs during emergencies, and avoid inaccessible facilities, people with disability are encouraged to develop a **Person-Centred Emergency Preparedness Plan** (PCEP) using a workbook developed by **Collaborating 4 Inclusion.** The recommendation is generally that people with disability evacuate early, however for a PCEP to work, reliable communication and information is essential for a person to understand the imminent hazard and enact their plan.

In light of these needs, we undertook research with a telecommunications expert who has spent two decades installing, maintaining, upgrading and repairing Australian telecommunications infrastructure that is used in emergencies.

Powering communication resilience

Our research identified that loss of power was the key issue that caused communications outages during the Black Summer bushfires. This aligns with the report of the Australian Communications and Media Authority into the **Impact of the 2019-20 bushfires on telecommunications network**. Only 1% of the 1,390 impacted facilities communications outages were caused by fire directly, but most were caused by the interruption of mains power.

To achieve resilience, power supply to communications equipment itself is only part of the story. Communications equipment in server hubs, nodes, base stations and equipment shelters must be kept cool to function. Power surges, the loss of power supply to air conditioning, or insufficient cooling provision as our summer temperatures increase, can all cause outages. We recommend that amendments to the standards and upgrade plans incorporate the need for equipment cooling, and auxiliary fan systems that will operate if air-conditioners fail.

PWDA supports the amendment of the standards to enable the installation of more solar capacity to help with power resilience. However, we are advised that solar can be less reliable and generate less power in smoky conditions and can have higher maintenance requirements. We are advised that hydrogen fuel cells and batteries may be more effective at improving power resilience in some cases. We recommend using the data that informed the report of the Australian Communications and Media Authority into the **Impact of the 2019-20 bushfires on telecommunications network** to identify and upgrade to the best technologies to ensure the resilience of power supply to the telecommunications network and infrastructure.

Protecting communication infrastructure

PWDA also calls on the federal government to consider in its plans the need to harden communications equipment against damage from electromagnetic pulses. Solar activity is increasing during the **Solar Maximum** identified by NASA and the National Oceanic and Atmospheric Administration (NOAA) as having started in 2024 and continuing till 2025.

This increases the risk that a solar flare could damage equipment or prevent it connecting to satellites, and the time needed to replace damaged equipment is likely to last far longer than the **3.5 day average** recorded during the black summer bushfires. We call on the federal government to plan for infrastructure upgrades that are resilient to electromagnetic pulse radiation.

Technology changes

PWDA supports the recommendation within the **consultation paper** for the upgrade of equipment to include omnidirectional antennas and increases to the maximum size of radiocommunications dishes in rural areas, on the basis that this will improve

communication resilience. We understand that this may cause concern for land-owners, and we recommend communication in accessible formats be provided to explain the need and anticipated benefits of these upgrades. Accessible formats include (but are not limited to) easy read, community languages, short videos and braille.

Many of the people with concerns have also been directly impacted by recent disasters, or volunteer for emergency services who were severely impacted when communications networks were lost. PWDA recognizes the importance of transparency and clear explanations, in order to build community trust and support.

The report of the Australian Communications and Media Authority into the **Impact of the 2019-20 bushfires on telecommunications network** also identified that fallen trees obstructed repair efforts when communications equipment was damaged. PWDA supports calls for **general roaming to be enabled** in situations where communications equipment is damaged, and we recommend the federal government work with mobile carriers to enable this to occur.

The impact of communication outages on people with disability in emergency situations creates a pressing need to improve infrastructure resilience. We support amendments to the Code of Practice to achieve this, and recommend further measures outlined, in order to enhance resilience for everyone.

Yours sincerely

[redacted]