Australian Government
National Emergency Management Agency

Submission to the Rural and Regional Affairs and Transport References Committee inquiry on the Shutdown of the 3G mobile network

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Introduction

1. The National Emergency Management Agency (NEMA) welcomes the opportunity to provide a submission to the Senate Standing Committee on Rural and Regional Affairs and Transport References Committee (the Committee) inquiry into the Shutdown of the 3G mobile network (the Inquiry).
2. NEMA recognises the importance of the mobile telephony network and the functions it delivers for the purposes of public safety. NEMA appreciates that telecommunications connectivity can be a matter of life and death during crisis, emergency and disaster events.
3. The national experience from recent events like the 2019-20 bushfires and the COVID-19 pandemic highlight the critical importance of national emergency messaging. Such events demonstrate, with relevance beyond emergency management, that effective Commonwealth-state cooperation and public-private coordination deliver the best results.
4. With regard to emergency management, the primary responsibility for the protection of life, property and the environment rests with the states and territories in their capacity as first responders during times of emergency. Notwithstanding the Australian Government's national coordination role during emergencies, state and territory emergency management agencies have full autonomy in relation to:
    a. whether and when to issue an emergency message, alert or warning;
    b. which delivery mechanisms to use to disseminate an emergency message, alert or warning, and
    c. the content of an emergency message, alert or warning.
5. Individual states and territories choose which warning technologies they adopt and when to activate them in accordance with the specific circumstances of an incident.
6. The Australian Government has assisted states and territories to improve their emergency warning capacity by funding critical national initiatives and by promoting nationally consistent approaches. The Australian Government's involvement can serve to overcome resource constraints that might otherwise prevent the rollout of programs by smaller jurisdictions, and also raise consistency and capacity in the nation's emergency services organisations.
7. The Australian Government continues to invest in initiatives to deliver alerts and warnings and through that improve Australians' ability to respond to emergencies and disasters. For example, NEMA is a stakeholder and financial contributor to the existing public safety mobile telephony messaging system (Emergency Alert) and is co-developing the next generation system, the National Messaging System (NMS), in conjunction with the Department of Infrastructure, Transport, Regional Development, Communications and the Arts.
8. NEMA supports a range of activities that traverse the emergency warnings and communications arena. Where there is benefit in capabilities and programs extending across jurisdictional boundaries, NEMA works closely with state and territory agencies, and relevant Australian Government counterparts, to facilitate their cohesive and effective implementation.

National Emergency Management Agency

9. NEMA was established in September 2022 to create a single, enduring, end-to-end agency to better respond to emergencies, help communities recover, and prepare Australia for future disasters.
    a. NEMA leads Australia's disaster and emergency management efforts by providing informed strategic oversight and guidance to assist communities to respond and recover, while preparing Australia for future emergencies.
10. NEMA provides national leadership to guide the efforts of state and territory governments, enabling a whole-of-nation, resilience-based approach to preventing, preparing for, responding to and recovering from disasters.

11. NEMA does not administer any regulation or legislation relevant to this Inquiry.

12. This NEMA submission addresses two parts of the Inquiry's terms of reference, namely:

    (a) the impact on access to triple zero emergency calls; and

    (h) efficacy and capability in disaster situations.

Impact on access to triple zero emergency calls

In response to the Committee's question, *(a) the impact on access to triple zero emergency calls*, NEMA notes the following:

13. The Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA) is, among other things, responsible for policy advice and regulatory frameworks relating to the telecommunications and broadcasting sectors, including the National Triple Zero Emergency Call Service (Triple Zero ECS).

14. Significant Australian Government and telecommunications industry messaging has taken place regarding the shutdown of the 3G networks, providing consumers with ample warning of the shutdown of these networks, the effect on access to the Triple Zero ECS and advice on which devices will be affected.

15. 3G and early 4G devices, including models that may have been purchased overseas or imported which are not configured for Australian networks, default to the 3G network to make calls to Triple Zero. These devices will not be able make calls to the Triple Zero ECS once Australia's 3G networks are deactivated in late 2024.

16. Consumers who own affected devices will need to replace their devices or have access to a landline for the purpose of contacting the Triple Zero ECS.

17. With regard to landlines, the Australian Government implements through contractual and legislative means a long-standing consumer protection known as the Universal Service Obligation (USO). The USO requires that standard telephone services are reasonably and equitably accessible by all Australians, and that Australians have reasonable access to payphones. Telstra is responsible for delivering the USO.

18. Given the USO and the efforts by the Australian Government and mobile network operators to inform consumers, the shutdown of the 3G network is not expected to have more than a negligible impact on access to the Triple Zero ECS.

Efficacy and capability in disaster situations

In response to the Committee's question, *(h) efficacy and capability in disaster situations*, NEMA notes the following:

Warnings ecosystem

19. Alert and warning systems have evolved over time to reflect new types of hazards and technologies. Radio broadcast technologies have been supplemented by television technologies, landline telephones, mobile telephones, terrestrial and satellite internet, and other fixed and mobile technologies.

20. Consistent with Australia's National Warning Principles, emergency alerts and warnings are multi-modal. Alerts and warnings are delivered through multiple channels such as websites and apps, radio and television, social media, SMS, face-to-face, sirens and public address systems, print media, community noticeboards and roadside messages.

21. The range of modes available through which to deliver alerts and warnings means that the shutdown of the 3G network will not mean the total loss of warnings for isolated, rural, regional or remote communities, as these areas remain served by other warning channels.

22. Australia's National Warning Principles stipulate that Australia's warning system should be compatible with the existing telecommunications networks and infrastructure without adversely impacting on the normal telephone and broadcast systems. The warning system should avoid any adverse operational, technical or commercial implications for the provision of general communications services to consumers and/or on the integrity of communications networks.

Emergency Alert

23. Emergency Alert is the national telephony-based warning system used by state and territory emergency services organisations to send voice messages to landlines and SMS text messages to mobile phones within a defined area about potential emergencies. Emergency Alert relies on functional telecommunications networks to send messages.

24. Emergency Alert uses standard SMS and voice calling technology to distribute warnings. Emergency Alert does not rely on 3G technology. Preliminary advice from Telstra, the provider of the Triple Zero ECS, is that older phones should continue receiving Emergency Alert messages.

25. NEMA is not aware of any information that indicates the Emergency Alert system's capability and coverage will change with the shutdown of the 3G network.

National Messaging System

26. NEMA is co-leading the development of Australia's next generation of telephony-based warning system, the National Messaging System (NMS). The NMS will reliably deliver telephony-based warnings, alerts and messages to compatible devices, locally, regionally and nationally, in near real-time. The NMS uses cell broadcast technology, which enables a point-to-area communication between a mobile operator's radio cell tower(s) and all devices in a specified geographic area.

27. This system will enable prioritised near real-time messages to be sent to compatible mobile devices in defined geographic areas during emergencies such as bushfires, floods, and events affecting national security. Unlike Emergency Alert, NMS messages do not contribute to network congestion, nor are they affected by it, ensuring telephony-based warnings are received in a timely manner.

28. The NMS, scheduled to be fully tested, evaluated and operationalised by mid-2025 and able to send messages before that, will broadcast messages across all available telecommunications networks including 4G, 5G and 5G standalone.

Public Safety Mobile Broadband

29. Emergency services organisations use ultra-high frequency and very high frequency radio to communicate. This is robust and reliable but cannot support heavy data traffic and web-based applications. Some emergency services also use consumer-grade commercial mobile broadband networks to transmit data and supplement existing systems. These networks may not meet mission-critical standards. Access to mission-critical mobile voice and data services will allow emergency services to use technologies such as location tracking, camera live streams, and drone monitoring, among others.

30. A national Public Safety Mobile Broadband (PSMB) capability will provide emergency services with access to mission critical high-speed mobile voice and data services to communicate more easily and improve responses to critical incidents. PSMB is a joint Commonwealth, state and territory initiative to provide the reliable communications needed for our public safety agencies to continue to keep Australians safe.

31. The 3G shutdown should not impact planning for the PSMB. 4G is better suited towards sending and receiving data than 3G and will provide for a more capable PSMB solution once implemented (noting that this assumes we will be utilising existing commercial 4G mobile networks).

32. However, if 4G coverage is not equivalent to 3G coverage, that is, if 3G sites are simply switched off without replacing the previous 3G coverage with an equal amount of 4G coverage, this will potentially result in less coverage for the PSMB and the public safety agencies that will use the service.

33. It is envisaged that the national PSMB capability, once rolled out, will initially operate in parallel with legacy systems.

34. We expect that jurisdictions that currently use systems that might be impacted by the shutdown of the 3G mobile network prior to the rollout of a national PSMB capability would be separately looking into this issue and respond in their own right to the Inquiry.

Personal medical alarms

35. In Australia, the use and sale of personal medical alarms is regulated by the Australian Communications and Media Authority. New alarms of this type must comply with Australian Standard AS 4607, which now mandates 4G capability.

36. Whether or not in a disaster situation, all personal medical or security devices that rely on the 3G band will stop working when the 3G networks close. This issue has been widely publicised in industry and Australian Government communications.

Conclusion

NEMA is actively involved in developing meaningful partnerships to build Australia's capacity for disaster resilience and support for communities when they need it most. NEMA develops, leads and coordinates Australia's connected approach to emergency management.

Once the 3G networks are decommissioned, there should be no material change to the community's ability to access the Triple Zero Emergency Call Service. Some devices will need to be updated to 4G and 5G compatibility, some consumers may need to install a landline and the mobile network operators will need to ensure that the overall 4G and 5G network footprint covers the decommissioned 3G network area.

The efficacy and capability of Australia's telephony-based warnings and alerts capability will not be materially negatively affected in disaster situations when the 3G network is decommissioned. The current Emergency Alert system is not expected to be materially affected, and the next generation National Messaging System will be unaffected. Australians will continue to be able to receive warnings through multiple modes. The 4G and 5G networks provide greater capability than the 3G network for emergency services organisations to access the mission-critical high speed data they require to perform their work during emergencies and disasters.