Regional Telecommunications Review 2021

City of Armadale – Submission

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The City of Armadale understands that the *Department of Infrastructure, Transport, Regional Development and Communications* is reviewing the delivery and adequacy of telecommunications services in regional, rural and remote Australia.

The following statements outline the City of Armadale's experience as a local government authority on recurring telecommunication issues highlighted by members of the community and local businesses across the region.

The City's objective is to engage directly with the *Regional Telecommunications Independent Review Committee* while bringing attention to ongoing telecommunication issues that are limiting our community's ability to communicate, study, do business, and most importantly to react in the case of life-threatening emergencies such as bush fires.

City of Armadale - Background

Strategically located in Perth metropolitan South Eastern corridor, the City of Armadale despite global disruption as a result of COVD-19 continues to be one of the fastest growing local governments in Western Australia and in the country.

Offering a unique and enviable lifestyle for those who want to live, work, visit and study in an area of natural beauty, Armadale is a diverse place full of opportunities and community pride. There are vineyards and orchards, green open spaces, bushland and the backdrop of the Darling Ranges combined with growing residential, commercial and industrial areas.

Just 28 km from the Perth CBD, Armadale is well linked via the metropolitan rail and road network and spans a vast area of some 560km^2. There are 19 suburbs, 26 primary schools, 12 secondary schools and 3 libraries serving a diverse and rapidly growing community.

Armadale's 3.4% population growth has consistently exceeded the State and National average over the last 10 years as the City has experienced significant and sustained growth in residential development. The fastest growing communities are located to the west of the City Centre, predominantly in Piara Waters, Hilbert, Haynes and Harrisdale.

The population is expected to grow from 90,797 (ERP) to around 150,000 by 2040. A key focus of Council is to catalyse economic development to ensure Armadale fulfils its role as a Strategic Metropolitan Centre in Perth by providing employment, community facilities and a range of services to the community.

Armadale, along with other semi-urban areas such as the City of Swan, Serpentine-Jarrahdale, Mundaring and Kalamunda form what it is known as the Perth Hills region.

Regional Development Australia (RDA) recently presented a Perth Hills Strategic Visioning document outlining findings and recommendations relevant to the region based on community consultation. A key finding is that ***telecommunications and power outages are placing people at risk and disrupting business.***

> *Telecommunications black spots and dropouts and frequent power outages are one of the compromises residents make in return for the open spaces and natural amenities that characterise life in the Perth Hills.*
>
> *However, they create serious impediments for businesses and significant community safety, health, and bushfire risks during emergencies. Emerging remote area technologies may offer a solution.*
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> *These technologies combine solar energy, batteries, and mobile communications towers to strengthen mobile signals and stabilise local area power networks through microgrids where high rooftop solar generation is prevalent.*

RDA's recommendation is to foster partnerships between government and industry to investigate and trial emerging technologies with the potential to deliver cost-effective mobile communications and power reliability.

City of Armadale respond to the Regional Telecommunications Review 2021 – Issues Paper Questions

1. **What telecommunications services are required in regional Australia to meet current and future needs? Are there any things regional communities and businesses need to do, but can't, on their existing services?**

Reliable mobile phone and fast internet coverage. Note that Armadale is not considered to be a regional area, however mobile and telecommunications black spots and service outages are recurrent issues our community faces.

In addition, Armadale is home of several industrial areas including the Forrestdale Industrial Park and Crossroad Industrial. Feedback from businesses is that telecoms speed and reliability should be improved to cater for large and digitally demanding businesses and industries.

2. **What changes in demand, barriers or challenges need to be addressed when it comes to telecommunications services in regional, rural and remote Australia?**

Armadale's population growth has consistently exceeded the State and National average over the last 10 years as the City has experienced significant and sustained growth in residential development. The population is expected to grow from 90,797 (ERP) to around 150,000 by 2040.

The Perth Hills region is a bushfire prone area which demands reliable telecommunications during emergencies.

3. How have the Government's policies and programs affected telecommunications service outcomes in regional, rural and remote Australia? How can these be improved?

Although programs have been advertised and delivered, unreliable telecommunications, mobile black spots and outages are all recurring daily issues that have not been resolved. These can be improved by increasing collaboration between relevant stakeholders including the community, all tiers of government, and telecommunications providers to tailor immediate solutions for each region.

Work that needs to be done includes boosting existing infrastructure by adding new technologies and equipment, build new infrastructure if required, educate the community, and increase the community's understanding on how to get better access and/or better connections and equipment, particularly during emergency situations.

4. How do service reliability issues impact on regional communities and businesses? How do outages, including in natural disasters, impact on communities and businesses?

Telecommunications mobile black spots and dropouts and frequent power outages create serious impediments for businesses and significant community safety, health, and bushfire risks during emergencies.

Regional Development Australia (RDA) recently consulted local residents on this particular issue. Response was that resolving telecommunications black spots and dropouts was the most common issue identified during consultation. This was reinforced by the survey which found that 79% of respondents work in businesses reliant on telecommunications and 61% of respondents cited ongoing faults as problematic.

Only 53% of respondents were satisfied with power reliability, with 45% experiencing frequent outages, especially during bad weather.

5. How might such impacts be addressed to ensure greater reliability? How can the network resilience be addressed in regional areas?

Maximise existing infrastructure to boost capabilities (telecoms towers) by applying latest technology and innovation on equipment.

Educate the community on how to improve their connections or devices to maximise their experience e.g. vehicle antennas, signal booster devices.

Trial emerging technologies to deliver cost-effective, combined mobile communications and power grid solutions that improve reliability for businesses and reduce risks to the community during bush fire, safety, and health emergencies.

6. How did the use of digital services change for regional consumers and businesses during the response to the COVID-19 pandemic? What insights for future service delivery does this provide?

Feedback is that working and studying from home has increased pressure on capacity, speed and reliability of regional telecommunications. This is additional to recurrent connectivity issues during emergency situations.

7. **What can be done to improve the access and affordability of telecommunications services in regional, rural and remote Indigenous communities?**

Maximise / boost existing infrastructure with latest technologies.

Educate / promote across community / local emergency service groups on how to maximise their connections with alternative off-the-shelf technologies.

8. **How can investment in telecommunications infrastructure work with other programs and policies to encourage economic development in regional Australia?**

Rapid movement in the policy, investment and industry environment suggest that opportunities to cost-effectively address telecommunication and power reliability issues in low population areas like those found across the Perth Hills already exist and will continue to develop. It is recommended to conduct due diligence to position local governments to capture some of these opportunities. The case would be compelling if it can be demonstrated that the combination of reliability, economic productivity and bushfire emergency risk management improvements are sufficient. (Source: RDA Perth Hills Strategic Visioning)

9. **What role could innovation, including new models, alternative investors or new ways of doing business, play to encourage investment in regional telecommunications infrastructure? What are the barriers?**

The role of innovation is crucial as technologies evolve rapidly and become more viable.

10. **To what extent will new technologies enable significant change to the delivery of telecommunications services in regional Australia over the next 5-10 years? Are there any barriers to accessing these technologies?**

The emergence of new energy technologies is changing the way power is provided. This is particularly useful at the fringes of the power network, like the Perth Hills, where distribution lines lack redundancy. In these locations, when a power line is cut there is often no other source of power for large numbers of users.

Microgrids in locations like the Perth Hills with high penetration of rooftop solar improve redundancy and stability with community batteries. Where blackspots exist, the batteries can support mobile towers with the addition of dedicated solar panels and batteries to address additional power demand. This can be cost effective when compared with the costs of distribution networks, particularly when business productivity benefits and reduced bushfire, safety and health emergency risks are incorporated.

Western Australia is becoming a hub for new energy technologies, due to the comprehensive range and volume of new energy mineral resources in the state. This is coupled a competitive advantage in remote area technologies to service far flung resources operations and remote communities. Government is supporting trials of remote area solutions that could benefit peri-urban areas like the Perth Hills. (Source: RDA Perth Hills Strategic Visioning)

11. How can Government better support the rapid rollout of and investment in new telecommunications solutions in regional areas?

By providing leadership and funding, working directly with local governments and by facilitating communications with telecom provides to identify immediate opportunities.

12. How can different levels of Government, the telecommunications industry and regional communities better co-ordinate their efforts to improve telecommunications in regional Australia?

The City of Armadale has joined WALGA's efforts to improve connectivity via its Telecommunications Resilience Working Group and the Peri-Urban Mobile Program. This is positive step forward by local governments working together on this issues. The key would be to achieve policy and investment alignment with State and Federal Government.

13. What changes to Government investment programs are required to ensure they continue to be effective in delivering improved telecommunications?

No comment

14. How can regional consumers be better supported to identify, choose and use the best connectivity options for their circumstances, as well as to understand and use their consumer rights?

More promotion, education, hands-on workshops, one-on-one forums to educate those affected.

15. To what extent is public information on connectivity options, including predictive coverage data and speeds, sufficient to help regional customers make informed decisions? What other information is needed?

Although information is publicly available, more can be done to promote / educate the community on how to improve their connectivity.

Question: Is it viable to target specific emergency response groups to work with them to assist them in improving their connectivity, better devices, antennas, other. Can bushfire prone communities be eligible for subsidies to upgrade their own technology / devices?

16. **What other matters should the Committee consider in its review and why are they important?**

Although focusing on regional Australia, it has been clearly identified that telecoms need immediate improvement in regions just outside metropolitan areas such as the Perth Hills. The topography of this picturesque region is a contributing factor to connectivity issues therefore solutions are needed.

Investment and collaboration is needed now to ensure the community has access to reliable services, particularly during emergency satiations.