

SuperGrid Telecommunications Program



Powerlink exists to serve Queensland. Our transmission network delivers safe, reliable and cost-effective electricity to more than five million Queenslanders and 253,000 businesses. We have a central role in the energy transformation, building the Queensland SuperGrid to transport renewable energy across the regions to power industry and households.

Powerlink is committed to investing in Queensland communities to improve community resilience, connectivity and the ability for local businesses to participate in economic opportunities. The SuperGrid Telecommunications Program is a key part of our community investment approach and an opportunity to deliver long-term benefits to regional communities through the energy transformation.

What is the SuperGrid Telecommunications Program?

The SuperGrid Telecommunications Program is a joint initiative between Powerlink and our subsidiary Queensland Capacity Network (QCN) to improve access to high-speed internet and mobile phone coverage to regional areas hosting transmission infrastructure.

Many Queenslanders in regional and remote areas have limited access to high-speed internet and mobile phone services. They often rely on satellite or copper connections, which can be slow, unreliable and expensive. This can affect their ability to access telehealth, online learning, emergency information, banking, e-commerce and other digital services.

The program will use Powerlink's transmission towers, and the fibre optic cable they carry, to boost telecommunications services for communities in Renewable Energy Zones (REZs) and across the footprint of Queensland's SuperGrid.

How can Powerlink's infrastructure improve local internet and mobile phone services?

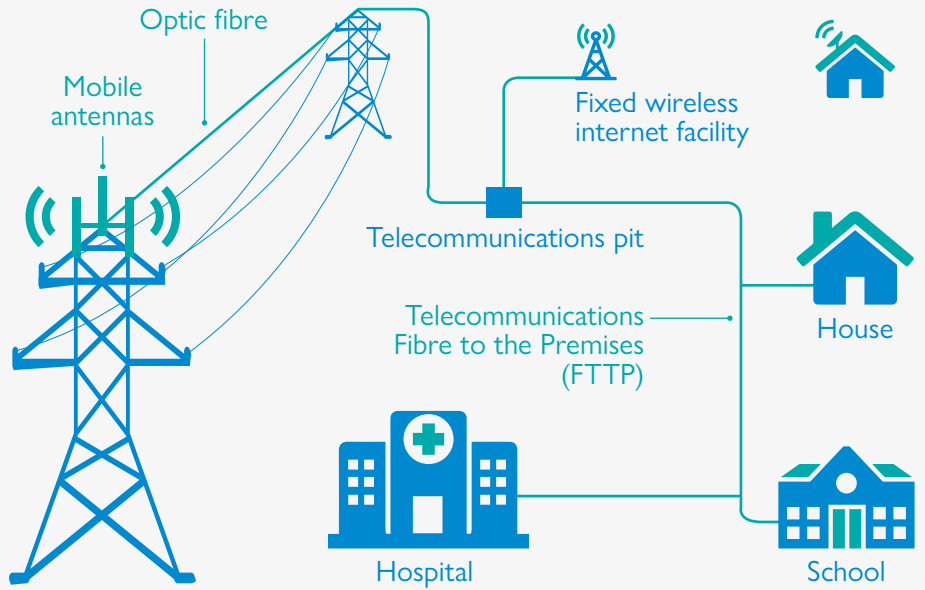
Powerlink's transmission towers not only support conductors which carry high voltage electricity, but also fibre optic cables to allow us to remotely monitor, control and protect the network.

The fibre optic cables provide large amounts of data transfer capacity. By utilising spare capacity on this fibre network, high-speed internet access can be provided to communities located near the transmission infrastructure. Transmission towers can also support wireless equipment to boost mobile phone signals in identified areas of poor coverage.

Local engagement by QCN will provide an opportunity for communities to directly input their feedback on mobile phone 'black spot' areas that should be prioritised as well as areas with poor internet connectivity.

Powerlink's fibre optic cable connects into a telecommunications pit. QCN then builds fibre from the pit into the township, and installs Fibre to the Premises (FTTP) to houses, hospitals, schools and businesses. Where FTTP is not possible, QCN will work with the industry to establish a wireless internet facility to deliver improved capacity to homes.

Hosting of antennas and equipment for mobile phone coverage will also occur at transmission structures that have been identified as suitable for mobile black spot infill.



Delivering improved community and economic outcomes

The program has the potential to help bridge the digital divide and create new opportunities for healthcare, education services, business and social connection in regional Queensland.

It will also facilitate greater collaboration across the community and stakeholder groups such as healthcare providers, Local Government, school groups and business organisations.

Some of the ways this program will support our communities:



Better access to telehealth appointments with doctors, specialists and mental health practitioners, especially in rural and remote areas.



Better online learning access for students of all ages and levels, from school to TAFE and university.



Better and more reliable access to emergency information in weather events, such as cyclones, floods and bushfires.



Improved efficiency and productivity in running businesses, from small to large, and connectivity opportunities to other business operators from around the world.



Enable farmers to get faster data to manage their properties and livestock, and mobile access to communicate with their customers and employees.

For many online businesses across Queensland, having access to reliable internet to facilitate their e-commerce platform, is a non-negotiable. Businesses looking to expand and diversify into broadened markets – including overseas opportunities – need to have the confidence their connectivity can support this growth. That is why the SuperGrid Telecommunications Program is so important as it will deliver the speeds and reliability that business operators in regional Queensland need to successfully compete in the online world.



Case study – Outcomes in action

Working in collaboration with fixed wireless carrier Channel Wireless, QCN delivered a 60-fold increase in upload speeds and an 18-fold increase in download speeds for Warwick-based business John Dee. The impacts have been widespread, from enabling the team to more efficiently manage their company finances through internet banking, to allowing a more stable and reliable connection to facilitate Zoom meetings and online conferences.

“Our data connectivity was so poor; we were really struggling to complete the simplest of tasks in our back office like internet banking... We just could not operate this way.

Thanks to QCN Fibre and Channel Wireless, we can not only complete these tasks securely and confidently, they have even started a program to upskill the team with online training. And finally, we can interact via a stable ZOOM connection with our customers and logistics partners all over the world.”

Andrew Fern, Innovation Manager
John Dee

Better mobile phone coverage means:

- ✓ Keep in touch more reliably with family and friends
- ✓ Increased support in emergency situations
- ✓ Greater access to telehealth appointments
- ✓ Improved ability to conduct phone business and banking transactions
- ✓ Increased use of phone applications for business efficiencies and social connections

Reliable internet connectivity means:

- ✓ Maximising efficiency in business – growth, sales and customer development
- ✓ More seamless emails and internet banking services
- ✓ Enhanced online learning for school, TAFE and university students
- ✓ Peace-of-mind with reliable online appointments with healthcare providers and specialists
- ✓ Faster downloads for movies and TV

How will the program be rolled out?

The SuperGrid Telecommunications Program will be rolled out in line with development of Queensland's SuperGrid and Renewable Energy Zones. The initial target areas will be transmission corridors associated with the CopperString 2032 and Borumba Pumped Hydro projects.

Powerlink is working with QCN to overlay the SuperGrid with identified mobile phone and broadband black spots. Mapping these areas across the SuperGrid will help identify optimal locations for boosting broadband capacity via Powerlink's new transmission infrastructure. Coordination will also occur with local Councils and other black spot programs to maximise the benefits of better connectivity and economic opportunities for Queensland and its regional and remote communities.

How can I find out more about this program?

If you want to learn more about the SuperGrid Telecommunications Program, please visit Powerlink at www.powerlink.com.au or QCN at www.qcn.com.au. We will keep you updated on the progress of the program and will also seek your input and feedback on how to best deliver the program for your area. Powerlink and QCN are committed to working with you and your community.

Frequently Asked Questions

Q. What is the SuperGrid?

The SuperGrid is all of the elements in the electricity system, including the poles, wires, solar, wind and storage that will provide Queenslanders with clean, reliable and affordable power for generations to come. The new backbone transmission infrastructure will be the foundation of the new SuperGrid, connecting energy storage and renewables to industry, businesses and consumers across the state.

Q. Who is QCN?

The Queensland Capacity Network (QCN) is a wholesale telecommunications carrier. Their carrier and geographically diverse core fibre network spans more than 13,000km across Queensland. QCN is jointly owned by Powerlink and Energy Queensland.

Q. What is a Renewable Energy Zone?

A Renewable Energy Zone (REZ) is a geographic area that has high potential for generating renewable energy such as wind, solar, hydro, or geothermal power. A REZ is usually identified by a combination of factors, such as resource availability, land use, environmental impact, grid connection, and market demand. A REZ can be developed by planning and investing in transmission infrastructure, generation facilities and regulatory policies that support the integration of renewable energy into the grid.

The renewable energy industry is growing at a rapid pace as the world moves to cut emissions as part of a decarbonising global economy. REZs will be a key tool for ensuring this transformation is coordinated and provides positive outcomes for communities, developers and other stakeholders. 12 potential REZ sites have been identified across Southern, Central and Northern Queensland regions. Their indicative location, size and timing is based on developer interest, analysis of available network capacity, renewable resources and land use.

Contact Us

For further information, visit www.powerlink.com.au or scan the QR code

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