



## → Fixed Wireless Fact Sheet

### What is the National Broadband Network?

The National Broadband Network (NBN) is designed to provide high speed broadband access to 100 per cent of Australian premises. The NBN is a nation-building program with the potential to lift Australia's productivity and will provide a broadband network to serve Australia for decades to come.

To reach everyone in our vast country, the NBN will be delivered via an optimal mix of fibre optic cabling, fixed wireless and satellite technologies. These fixed wireless and satellite technologies represent a significant improvement over services currently available to many Australians living in regional and remote communities.

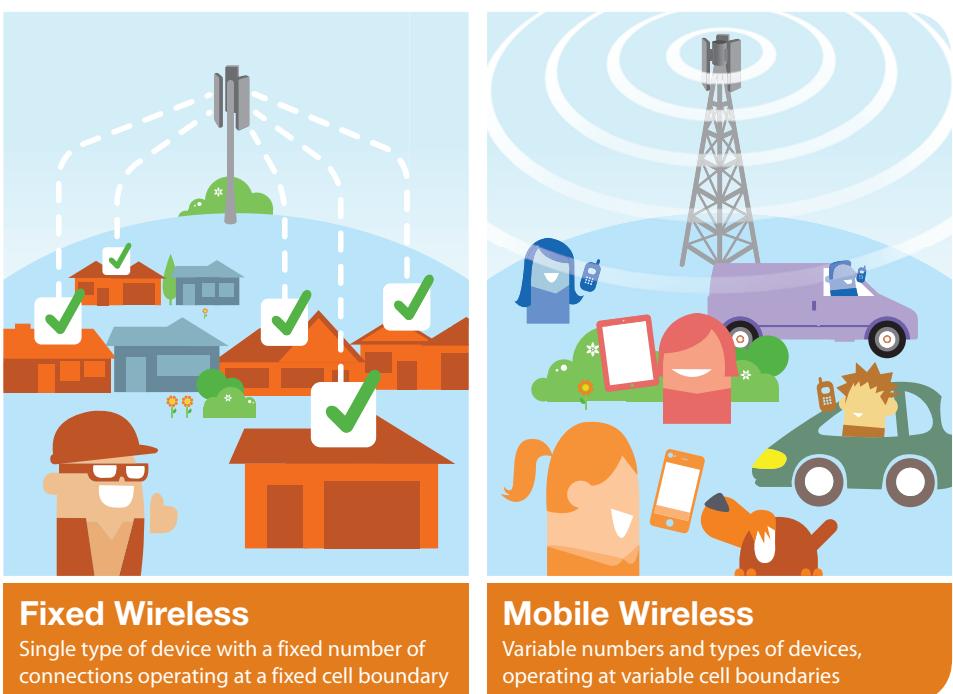
### How does fixed wireless work?

Australians who receive NBN's fixed wireless will be among the first to experience the benefits of high speed broadband over the NBN. The fixed wireless network is expected to be completed by 2015, five years ahead of the expected completion of the fibre network, and it will serve around four per cent of the population or approximately 500,000 premises including farms, homes and businesses. People in fixed wireless areas are expected to be able to sign up with internet service providers to use the NBN from the middle of 2012.

→ NBN's fixed wireless network, which uses advanced technology commonly referred to as LTE or 4G, is engineered to deliver services to a fixed number of premises within each coverage area.

This means that the bandwidth per household is designed to be more consistent than mobile wireless, even in peak times of use.

Unlike a mobile wireless service where speeds can be affected by the number of people moving into and out of the area, the speed available in a fixed wireless network is designed to remain relatively steady.



NBN Co's fixed wireless network is designed to offer internet service providers with wholesale access speeds of up to 12Mbps\*. This is comparable, and in some cases better, than that available in many urban areas that currently receive ADSL 2+ services. 12Mbps is an initial speed level, and NBN Co is currently planning for faster speeds to become available over the fixed wireless service at a later stage.

While NBN Co's high-quality fixed wireless service is not a mobile service, it will use cellular technology to transmit signals to and from a small antenna fixed on the outside of a home or business, which is pointed directly towards the fixed wireless facility. NBN Co has designed each fixed wireless facility to serve a set number of premises, which permits greater consistency in the speed and quality of service that can be delivered to each home and business receiving the fixed wireless service. The actual speed and quality of that service will depend on factors including the in-premises connection and equipment, plans offered by internet service providers and how the internet service provider designs its network.

\*NBN Co is designing the NBN to be capable of delivering high speeds to NBN Co's wholesale customers (telephone and internet service providers) via fibre, fixed wireless and satellite. Speeds actually achieved by retail customers (end users) will depend on a number of factors including the quality of their equipment and in-premises connection, the broadband plans offered by their retail service provider and how their retail service provider designs its network to cater for multiple end users.

## Building NBN Co's fixed wireless network

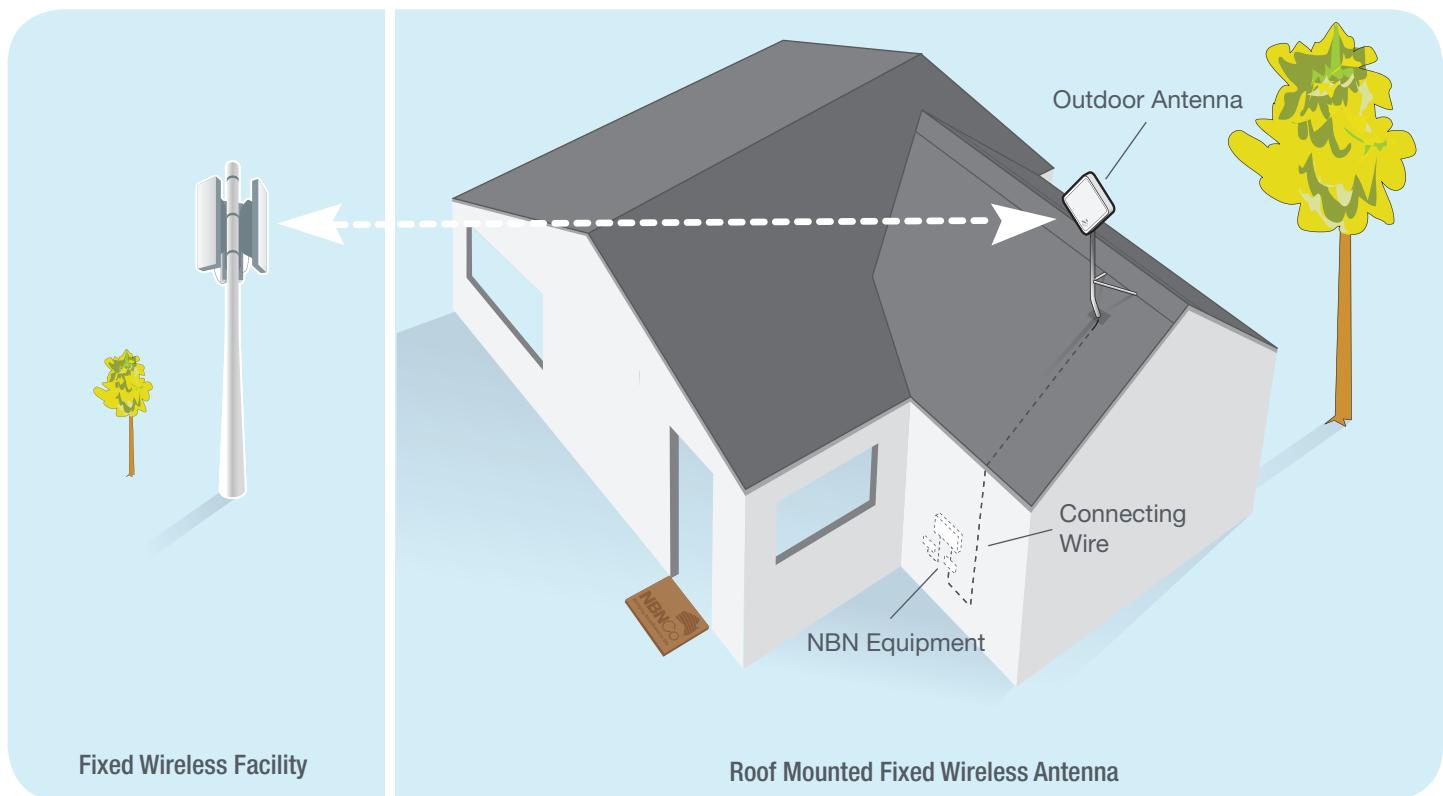
In order to provide access to reliable high speed broadband for all Australians, NBN Co works in consultation with local, state and federal governments to determine the most efficient and effective way to rollout the fixed wireless network. A key consideration in these decisions is the optimal network design to ensure all Australians have access to high speed broadband in the most prudent and cost effective way. NBN Co engineers take into account factors such as population density, geography and other network-specific considerations when defining roll out plans to ensure the NBN is delivered in the most sensible and practical manner.

Planning for the fixed wireless rollout is now underway and consultations have begun with local authorities and communities. To build the network, NBN Co will require the use of around 2300 sites nationwide with the priority on using existing telecommunications structures wherever possible. Only where there is a lack of suitable, available infrastructure, NBN Co will establish new sites to enable the delivery of consistent, high quality broadband. This would generally mean lodging a development application with the relevant authority and engaging with the local community.

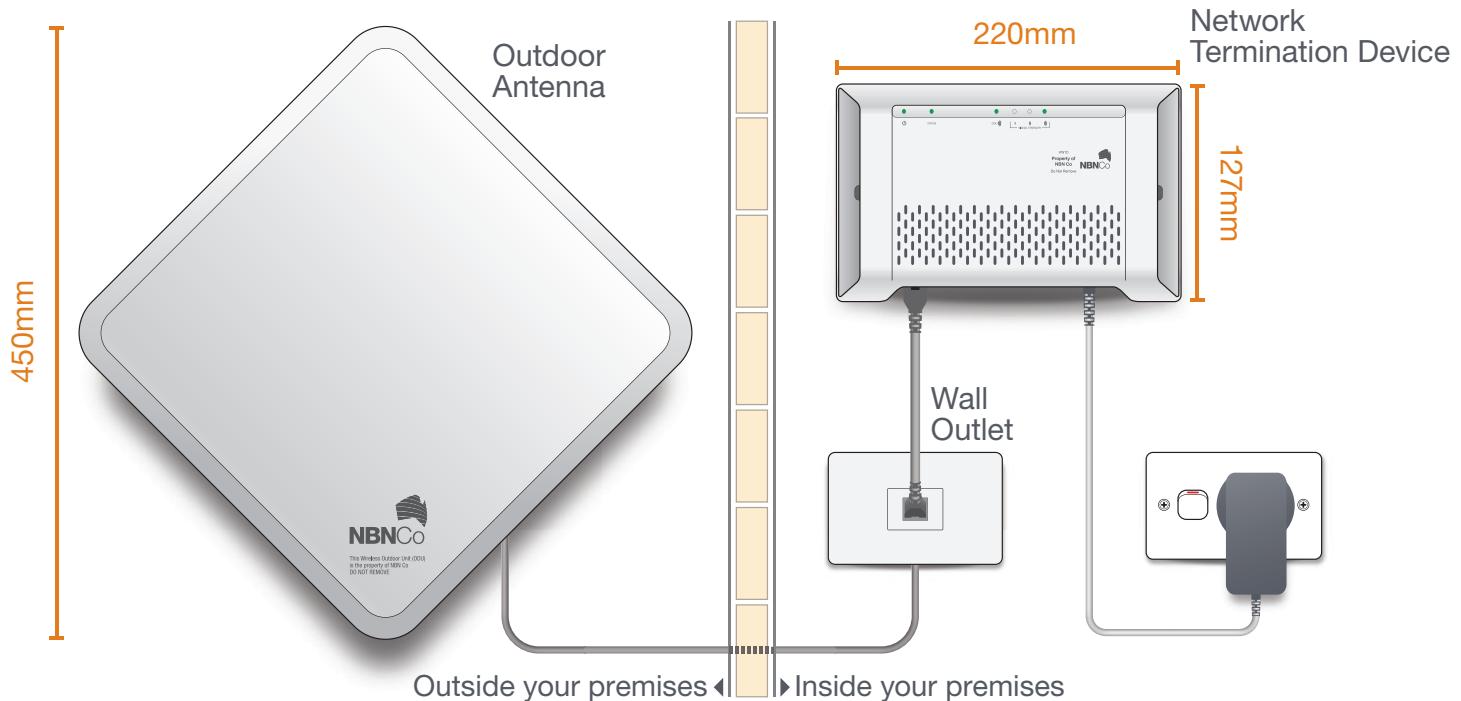
## Fixed wireless to your premises

Our fixed wireless services are delivered by radio communications via antennas that transmit a signal direct to a small outdoor antenna attached to the premises.

The antenna on the outside of a home will be connected by a cable running through the wall to the Network Termination Device which will be located within the home. Generally your telecommunications or internet service provider will assist you on the best means of connecting your computer, TV or WiFi Router to our Network Termination Device. That device sits within the house, and is hardwired to the outdoor antenna pointed at a fixed wireless site.



## Fixed wireless equipment



## Getting Connected

NBN Co is a wholesale provider, which means that to connect a service you will need to go through a retail company such as an internet service provider. Once fixed wireless becomes available in your area, you are encouraged to contact your internet service provider to order a service. The internet service provider will organise the installation of network equipment at your premises, which NBN Co will provide free of charge. A standard installation of this equipment at your premises will be free of charge. For more information about standard and non-standard installations please visit our website at: [www.nbnco.com.au](http://www.nbnco.com.au)

In fixed wireless areas, NBN Co will be providing a broadband service only. The copper phone line will remain in place to provide a telephone service, however internet service providers that sell the NBN Co fixed wireless service may choose to offer their customers voice-over-broadband products in those areas as an alternative to telephone services over the copper phone line.



## NBN Co fixed wireless quick facts

- Approximately four per cent of Australian premises will have access to a fixed wireless service.
- Fixed wireless networks are designed to give more consistent broadband performance than mobile wireless.
- Our fixed wireless network uses advanced wireless technology commonly referred to as LTE.
- It will offer internet service providers wholesale access broadband speeds of up to 12Mbps\* and NBN Co is currently planning for higher speeds to become available.
- If NBN Co can't deliver fixed wireless technology to your home or business, a wholesale service delivered via satellite technology will be offered. Interim satellite services are currently available to eligible residents, farms, small businesses and indigenous communities that don't have access to "metro comparable" broadband. More information is available at: [www.nbnco.com.au/satellite](http://www.nbnco.com.au/satellite)
- Connecting to the NBN is simple. Just ring your internet service provider and they will arrange the installation of an NBN box in your home at no cost for a standard installation when coverage is available in your area.
- Retail prices will be set by each internet service provider.

## For more information:

If you would like to find out more general information about connecting to the NBN and the fixed wireless service, please contact the NBN Co Solutions Centre on **1800 881 816**.

If you want to order a service you will need to speak to your telecommunications or Internet Service Provider. Maps showing the current plans for the fibre and fixed wireless services areas, as well as further information about the NBN rollout plans are available on the NBN Co website at: [www.nbnco.com.au](http://www.nbnco.com.au)