

Why is Fixed Wireless being used instead of fibre in Nimbin?

The National Broadband Network (NBN) is designed to provide high-speed Broadband access to 100 per cent of Australian premises. To reach everyone in the country, the NBN will be delivered via an optimal mix of fibre optic cabling, fixed wireless and satellite technologies.

Nimbin is typical of the areas being serviced by Fixed Wireless, as there are fewer than 1,000 premises in the area, which is the general threshold used nationally for communities to be included in the fibre rollout. Some smaller communities may also be serviced by fibre if the fibre "backbone" or transit network linking all the fibre serviced areas passes directly through it.

Australia's size and particular geographic challenges and the cost of providing fibre to all Australian premises is prohibitive.

What is Fixed Wireless?

Fixed Wireless is different to current mobile wireless networks, which can deliver varying speeds and reception depending on how many people are moving in and out of the area and whether they are using the network for low volume email or high volume downloads and video services.

NBN's Fixed Wireless network is engineered to deliver services to a fixed number of premises within a coverage area. People's usage of the network will still vary, but the set number of serviced premises in each area means that the bandwidth per household is designed to be consistent, even in peak times of use.

NBN's Fixed-Wireless network is currently designed to offer internet service providers with wholesale speeds of up to 12Mbps* and will be able to order wholesale download speeds of up to 25 Mbps and upload speeds of up to 5 Mbps* from their internet service provider from as early as June 2013.

The network will use cellular technology to transmit radio 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.

Radio Communications and Public Health & Safety

NBN Co Fixed Wireless is a radio network. Licensed radio frequency transmitters, including the NBN's fixed wireless communications facilities and commercial radio and TV broadcast towers, are regulated to protect all people in all environments all of the time.

The national safety regulations operate by placing a limit on the strength of the signal (or radio frequency EME) that our antennas can transmit. They do not impose any general public distance-based restrictions. That is why radio communications facilities that emit signals under the safety limit are permissible in any environment.

Typically NBN fixed wireless communications facilities operate at radio signal strengths that are thousands of times below the safety limit. The signal strength from our network facilities is approximately one tenth the power of a taxi's two-way radio.

This substantial level of compliance is typical of the Fixed Wireless network, and demonstrates that NBN Co operates its network safely and responsibly at signal strength significantly below public safety limits.

Please explain why you cannot access existing fibre that runs through our town as a means of delivering fibre connection to local houses and businesses?

NBN Co has been charged with building an open access network and is currently building our fibre backbone and transit network, whilst there are transit fibres running between most communities in Australia they are not always accessible for many commercial considerations. A lot of the cost in rolling out

a fibre network is building the access network, laying fibres through the streets and to house, and building the Fibre Access Node or exchange. Extensive analysis has been done of the costs of providing high-speed broadband throughout Australia. At around the 90-93% of premises mark, as the population gets more dispersed the cost of fibre rollout increases significantly, and technologies such as fixed wireless and satellite become more practical and cost-effective.

Do I have to subscribe to the NBN?

No, where the NBN is being provided over fixed wireless, it's your choice whether you switch to the NBN, what services you take up and which service provider you use. If you don't wish to move to the NBN ask your preferred service provider about other options.

Will NBN Co be retiring our copper?

In areas where fibre is rolled out to the premises the copper will be switched off approximately 18 months after the area has been completed with fibre installation.

In fixed wireless and Satellite areas, NBN Co will be providing a broadband service only. The copper phone line will remain in place to provide a telephone service, and is scheduled to remain for up to 20 years.

A standard installation of NBN Co equipment across all three technologies fibre, fixed wireless & satellite is currently free of charge.

Can the Fixed Wireless network cope with community growth?

The Fixed Wireless network is designed to allow for standard community growth without additional equipment being required.

How many sites are needed for Nimbin?

It is recommended two sites are required to provide effective coverage for Nimbin.

Will it cost me anything to switch to the NBN?

A standard installation of NBN Co equipment is currently free of charge. NBN Co doesn't sell direct to the public, so give your preferred service provider a call to find out more as there's a great range of very competitively priced NBN packages available for purchase from a large number of service providers.

Speak to your preferred service provider to see if there are any other charges such as set up or activation fees.

Why are fixed wireless facilities being built near communities?

The location of each facility is determined by population density and needs to be situated reasonably close to the homes and business which will receive NBN's fixed wireless network. This allows for greater consistency in the speed and quality of service that can be delivered to each premise.

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