

Response to questions raised by attendees at meeting held at Nimbin Bowling Club Tuesday 25th February, 2014.

The following information is provided in response to questions raised at a Community Stakeholder Meeting on 25 February 2014 regarding the proposed NBN Fixed Wireless facilities off Anderson Rd, and at the rear of the Nimbin Show Grounds. NBN Co took these queries on notice, and provides the following response.

Signal Propagation

Residents have inquired whether the radiofrequency signals would reverberate off the ridgeline rock walls at Nimbin. NBN Co advises that Nimbin residents won't be affected by more radiofrequency electromagnetic energy (EME) because signals will lose their strength, or significantly "attenuate" when they reverberate off hard surfaces such as rock walls.

Is there independent research available regarding the impact of attenuated signals from rock walls?

NBN Co suggests that any resident with inquiries regarding health and safety research to contact the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) directly for advice. ARPANSA's free call number is 1800 022 333.

What are the signal propagation patterns from the NBN fixed wireless antennas?

Please see here links to the manufacturer's antenna specifications.

http://www.commscope.com/catalog/andrew/product_details.aspx?id=5234&tab=3

http://www.commscope.com/catalog/andrew/product_details.aspx?id=5849

What is the coverage area of the NBN fixed wireless facilities?

The proposed facilities (off Anderson Rd, and off Cecil St) are designed to provide service to the Nimbin Village, and surrounds, stretching out along Stoney Chute Road, Blue Knob Road, and Tumble Falls Road.

NBN Co designs the fixed wireless network to maximise the reach of the service to enable as many premises as possible to connect to the best possible technology we can offer, however this objective is also balanced with the need to protect amenity in regional towns and villages.

NBN Co is a wholesale provider, which means that to connect a service you will need to contact your preferred phone or internet service provider. Once fixed wireless becomes available in your area, you are encouraged to contact your preferred service provider to order a service.

Before the network equipment is installed, a service validation test will be carried out. If your home or business is unable to be served by fixed wireless or other fixed line technologies, you will be able to receive NBN Co's Long Term Satellite service which is scheduled to be available in late 2015.

What service will Tumble Falls receive?

There may be certain locations that won't be able to access fixed wireless due to terrain or that they are outside of the fixed wireless footprint, and these properties will have access to Satellite technology.

Tumble Falls is scheduled to receive NBN Co long term satellite service, because the terrain difficulties make it extremely difficult to transmit a radio signal out of Tumble Falls, back to the broader NBN network.

Can the facility be located on Newton Rd, to extend service to Tuntable Falls?

When NBN Co was considering locations to service Nimbin, it did not pursue locations along Newton Rd or Upper Tuntable Falls Rd because this location would be more visually intrusive for the entire village of Nimbin, and also because locations along Newton Rd would result in a facility in close proximity to adjoining residences.

NBN Co seeks to minimise the intrusion of facilities to both the whole community and immediate neighbours as best as possible, and avoids ridgeline positions, where facilities are likely to become prominent features in the local landscape. A much larger facility (lattice tower) would be required, with more than one set of antennas to try to provide service to both Nimbin and Tuntable Falls. NBN Co did not pursue options on the ridgeline believing it to be a much poorer planning / visual outcome for Nimbin, unlikely to meet with community endorsement.

When can the NBN satellite service be accessed?

The NBN Co long term satellite service is scheduled to be available in late 2015 – about the same time as the Fixed Wireless service is scheduled for delivery in the Northern Rivers.

Can NBN Co utilise the existing fibre in the area?

With regards to the utilisation of third party existing fibre, NBN Co advises that these options are considered cost prohibitive, and outside the national network design parameters. NBN Co does not have access to third-party redundant fibre in most parts of the country, and would need to deploy its own fibre direct to this community.

Across much of the country, third party redundant fibre is not currently accessible to NBN Co. In addition to the lack of access, connecting to third party fibre is not a simple, commercially viable solution in engineering terms.

What happens if the Government sells off the NBN?

NBN Co was set up by the Commonwealth. The NBN Companies Act states that the Commonwealth must retain full ownership of NBN Co until the NBN rollout is complete and the network is fully operational. After the completion of the network there are several other conditions that would need to be met before a sale by the Commonwealth could occur.

What colour will the proposed facility at Nimbin Showgrounds be painted?

NBN Co has proposed that the proposed pole at the rear of the Show Grounds be painted green, to blend in with the vegetated background as much as possible. However, NBN Co will adhere to any colour specified by Lismore City Council, should the specific colour be made a condition of consent. In NBN Co's judgement, green would be the best outcome at the Show Grounds for minimising visual intrusion.

Can NBN Co not install barbed wire fences around the facilities, so as to reduce risk to local fauna?

NBN Co is sympathetic to concerns regarding the barbed wire fence, however it is national policy that the proposed facilities are securely fenced to prevent vandalism. NBN Co must therefore maintain the proposals with the standard chain link and barbed wire fencing.

How far away are the proposed sites to the National Park, and is there any impact on the National Park – has this been considered?

The closest area within the Nightcap Ranges National Park is approximately 3km to the north of the proposed facility at 99 Andersons Rd. The proposed facility is situated within the Rural Zone and there are no overlays that identify the area as having significance in terms of flora and fauna.

NBN Co conducted searches of commonwealth environmental databases to determine the likelihood of any endangered species being impacted by the proposed facility. The search indicated that a number of threatened species may occur within the area, although none were specifically identified within the immediate vicinity of the site. This indicates that these species may be present in the area on occasions, however the facility is unlikely to have a significant impact on any of these species. This is due to the facility being proposed in a cleared rural area, which results in limited disturbance of natural habitats. As such the facility is highly unlikely to impact on any significant breeding or feeding habitat of any of any local species.

The transmission of low power radiofrequency signals servicing Nimbin, from the proposed fixed wireless facility, and also from other existing communications facilities at or around Nimbin including mobile network facilities and the community radio station will not have an effect on flora and fauna, either endangered or otherwise.

NBN Co advises that telecommunications facilities are permissible within national parks, and that very significant, regional communications transmitters have long been present at Mt Nardi, within the Nightcap Ranges National Park.

Residents presented a paper for NBN Co.'s consideration, "*Bees, Birds and mankind – Destroying Nature by Electrosmog*" by Ulrich Warnke, requesting a response to this paper.

Mr Warnke's paper proposes an hypothesis that radio communications are responsible for the collapse of bee colonies world wide, however relevant authorities do not appear to have accepted this theory as scientifically credible. Rather, authorities and specialists in this field are concentrating their efforts on a range of interacting factors, including parasites, diseases, nutrition, pesticides, beekeeping practices, weather patterns (climate change), and genetics as the likely causes challenging bee populations.

Specifically, neonicotinoids insecticides are believed to have been responsible for significant losses in the number of queen bees produced and big rises in the numbers of "disappeared" bees – those that fail to return from foraging trips.

Last year, the European Union banned the use of three neonicotinoids (thiamethoxam, clothianidin and imidacloprid), commonly used on flowering crops such as corn, oilseed rape and sunflowers. In addition, parasites, such as the Varroa destructor (a parasitic mite and vector of viruses) and Nosema ceranae (a parasitic fungus) are known to weaken immunity and bee health, and are considered a significant contributing factor to bee population decline.

Radio communications signals have been present in urban and regional environments for more than 100 years. NBN Co maintains that the fixed wireless network, a relatively low-powered radio network compared to transmitters that have been broadcasting signals for decades, will not contribute to a decline in local bee colonies at Nimbin, or elsewhere in Australia.

12. Can people on solar power turn the NBN fixed wireless connection device off, to save power?

The NBN Co's network termination devices (NTDs) are supplied with an indoor power supply unit that must be connected to a dedicated, standard 230V, 10A, 50Hz Australian General Purpose Outlet (GPO).

The NTD should not be operated outside these parameters, and the power supply must conform to Australian Standards. The average power consumption of the wireless NTD is 9 watts when idle, 12 watts when active, and 21 watts when active and the outdoor ambient temperature is around or below 0 degrees Celsius.

NBN Co requests all subscribers to leave their NTD switched on as this device forms part of the NBN Co network. Switching it off would affect NBN Co's ability to monitor and maintain the network.