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MEDIA RELEASE

NBN Co cuts energy use on Fixed Wireless network by the equivalent of powering 200 homes

NBN Co has successfully reduced power consumption across its faster, higher-capacity Fixed Wireless network by five per cent, which is estimated to deliver a reduction of 850 metric tonnes of carbon dioxide (CO₂) emissions.

Based on data collected since an innovative energy-saving feature embedded in modern hardware was introduced in November 2023, nbn expects to save 1.3 Gigawatt hours (GWh) of power annually, which is the equivalent of powering 200 Australian homes.

The company is focused on reducing the power consumption of its Fixed Wireless network wherever possible, without affecting the performance or experience for customers.

Through the installation of Ericsson's innovative equipment with Microsleep Tx software on nbn's 2,400 Fixed Wireless towers across rural and regional areas, continuous energy savings are enabled, particularly during low traffic periods.

Radio unit transmitters on the Fixed Wireless towers are flipped into sleep mode when they are not active, reducing network energy consumption. As the radio components can switch on again in microseconds, network performance is not compromised.

NBN Co Chief Technology Officer, Wireless Networks, Jason Ashton said:

“Building a more climate-resilient and energy-efficient network is a key priority for our company.

“As network usage and data needs accelerate, communications service providers need to increase the capacity of their networks, which leads to sustainability impacts.

“It makes perfect sense to reduce the power consumption of the Fixed Wireless network in the middle of the night when customer usage is low, allowing us to reduce our greenhouse gas emissions.”



Head of Ericsson, Australia and New Zealand, Emilio Romeo said:

“The utilisation of Ericsson’s innovative equipment with Microsleep Tx on nbn’s Fixed Wireless towers is a major step towards helping nbn deliver a more sustainable communications network.

“In addition to reducing the environmental impact of the network, our Microsleep Tx software will create operational cost savings, enabling nbn to focus on meeting the growing needs of homes and businesses in regional Australia.”

Fixed Wireless network upgrade

In March 2022, the Commonwealth Government and NBN Co announced a \$750 million co-investment commitment to upgrade nbn’s Fixed Wireless and Satellite networks to help meet the growing needs of homes and businesses in regional Australia.

This is enabling nbn to upgrade its Fixed Wireless network using state of the art 4G and 5G technology and software, as well as achieve scale deployment of its innovative Long Range 5G mmWave technology to expand the capacity and coverage of the network.

As part of the upgrade program, nbn is committed to uplifting its existing product capabilities to provide faster wholesale busy period download speeds across the Fixed Wireless network and has introduced two new Fixed Wireless higher speed tier wholesale products^{4,5,6,7}.

nbn® Fixed Wireless Plus has been increased from up to 75 Mbps and 10 Mbps to up to 100 Mbps and 20 Mbps in the downlink and uplink respectively.

By the end of the upgrade program, the new Fixed Wireless nbn® Home Fast is intended to be available to approximately 90 per cent of eligible upgraded locations in the Fixed Wireless coverage area. Fixed Wireless Home Fast has a wholesale peak information rate speed of 200-250/8-20 Mbps^{6,7}.

By the end of the upgrade program, the new Fixed Wireless nbn® Superfast service is intended to be available to approximately 80 per cent of eligible upgraded locations in the Fixed Wireless coverage area. Fixed Wireless Superfast has a wholesale peak information rate speed of 400/10-40 Mbps. Fixed Wireless Home Fast and Fixed Wireless Superfast will be available from a growing number of participating providers from July 2024^{6,7}.

Reducing annual energy use

The Fixed Wireless power saving initiative is part of the company’s commitment to reducing annual energy use by 25 GWh per annum from December 2025.¹

NBN Co is making progress on its commitment to 100 per cent renewable electricity purchases from December 2025¹ with the signing of three Renewable Power Purchase Agreements (PPAs).



These include a new solar farm being constructed at Munna Creek, near Gympie in south-east Queensland, a wind farm operated by AGL at Macarthur in south-west Victoria, and a second new solar farm that is now operational at West Wyalong in the Riverina area of New South Wales.

The company's target of 100 per cent renewable electricity purchases from December 2025² is underpinned by membership of the RE100, a global renewable electricity initiative comprising approximately 400 of the world's largest businesses. nbn was the first Australian telecommunications company and first Australian Government Business Enterprise to join RE100.

In June 2023, nbn committed to long-term greenhouse gas emissions (GHG) reduction targets² and achieving net-zero emissions by 2050, or sooner, via the Science Based Targets initiative (SBTi).³

This follows nbn setting near-term science-based emissions reduction targets, which have now been validated by the SBTi,³ and are as follows:

- NBN Co commits to reduce absolute scope 1 and 2 GHG emissions 95 per cent by FY30 from a FY21 base year.
- NBN Co commits to reduce scope 3 GHG emissions from use of sold products 60 per cent per device within the same timeframe.
- NBN Co commits that 80 per cent of its suppliers by spend covering purchased goods and services, capital goods, and downstream transportation and distribution will have science-based targets by FY27.

Footnotes

1 [NBN Co Corporate Plan 2024](#)

2 [NBN Co announces 100% Renewable Electricity target and Towards Zero Carbon ambition](#)

3 [Science Based Targets Companies Taking Action](#)

4 Faster download speeds mean less buffering where the buffering was caused by slow download speeds over the nbn Fixed Wireless network. Please note that the amount of buffering you experience may also be affected by other factors outside of nbn's control (like your Wi-Fi and other equipment configuration, chosen broadband plan, how your provider designs its network, or the video streaming and other content providers' network).

5 This measure will be an estimate based on a sample of nbn Fixed Wireless wholesale services and will measure the average speed at certain points in each hour of the busy period between 7-11pm to identify a 'typical busy period speed', in line with the methodology outlined in the ACCC's Broadband Speed Claims Industry Guidance Paper (October 2020). For each sample measured it will take into account factors outside of nbn's control such as environmental impact on radio signal strength, but will not take into account retail level, in-premises or user factors that could impact the end user service. Actual end user speeds will differ as a number of factors influence this, including the particular end user applications in use at the time, end user equipment and software, and the number of concurrent users on the nbn Fixed Wireless service.



6 These are nbn wholesale speed tiers, which nbn provides to retail phone and internet providers. Attainable wholesale speeds are subject to the rollout of network upgrades and some premises will require nbn to complete upgrades to the equipment at the premises.

7 Your experience, including the speeds actually achieved over the nbn network, depends on the nbn network technology and configuration over which services are delivered to your premises, whether you are using the internet during the busy period, and some factors outside our control (like your equipment quality, software, broadband plans, signal reception and how your service provider designs its network). Speeds may be impacted by the number of concurrent users on nbn's Fixed Wireless network (including during busy periods).

ENDS

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