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## NBN FIXED WIRELESS AND SATELLITE SERVICES

**LEAD/SUPPORT: Nadine Williams/Andrew Madsen**

### KEY STATEMENT:

The performance of the Sky Muster service is generally more stable and nbn has increased data caps for consumers.

### KEY ISSUES

- As at 28 September 2017, over 79,000 homes and businesses had connected to the Sky Muster satellite.
- As at 4 October this year NBN Co Limited (nbn) has doubled the wholesale data caps and increased average peak downloads by 50 per cent on Sky Muster satellite services.
- nbn has also put in place systems and processes to address some initial installation and service problems, which has led to a better experience for consumers.
- The fixed wireless rollout is proceeding to schedule, with over 540,000 homes and businesses ready to connect as at 28 September 2017.
- nbn has announced the Qantas in-flight Wi-Fi trial which makes use of the satellite service will be extended until mid-November 2017.
- The Sky Muster system is designed so that consumers on the ground will always be prioritised over air traffic.

#### *Increased data caps on the Sky Muster service*

- In June this year nbn announced that from October 2017 it is doubling the maximum monthly wholesale data limits from 150GB to 300GB, and increasing average peak downloads by 50 per cent on Sky Muster services.
- The Government had asked nbn to look at practical ways to improve the performance of the Sky Muster satellites to address concerns from regional customers regarding low data cap offerings.
- nbn has been able to increase the overall data capacity of the satellites by using spectrum more efficiently.
- This additional bandwidth has supported nbn's changes to the Fair Use Policy which have enabled retailers to significantly increase data caps on their Sky Muster plans.
- These changes will enable Sky Muster satellite customers to download around 50 per cent more peak data and twice as much off-peak data.
- The changes took effect from 4 October this year. Plans available to consumers are determined by retailers, and can be expected to vary.
- A quick market scan shows that plans are currently available with up to 300GB in total data and up to 200GB in peak time data.

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- nbn will continue improving the Sky Muster service and examining ways to further increase capacity to ensure it offers the best possible service to regional and remote customers.
- It is apparent that retailers have passed on the additional data available from nbn at minimal cost to consumers.
- Consumers should choose a broadband plan best suited to their individual circumstances.

*Recent Sky Muster outage*

- nbn has advised that there was an outage of Sky Muster services on 4 September 2017.
- The outage affected around section s47G(1) premises in parts of Victoria, Queensland, Western Australia and Lord Howe Island.
- The outage was caused by extreme cold weather resulting in the loss of power to the satellite ground station in Geeveston, Tasmania.
- nbn was able to restore services by 1pm the following day (Tues, 5 September 2017).
- End users in the Sky Muster footprint are still able to keep copper-based services if they are concerned about connectivity during extreme weather outages.
- As part of its usual business practice, nbn will undertake an assessment following an outage caused by a natural disaster or extreme weather event to determine where improvements can be made.

*Network resiliency of Sky Muster ground stations*

- The Australian Government understands the importance of telecommunications services during an emergency or power outage.
- nbn incorporates back up in its core network design in a number of ways. section s47G(1)  
section s47G(1)
- It is important to remember that no communications technology is completely resilient to power outages.
- It is strongly recommended that people do not rely on a single form of communication or source of information during disasters and extreme weather events. Even in areas where mobile coverage is available, any communication system can be temporarily affected by adverse conditions.
- nbn will undertake an assessment following an outage caused by a natural disaster or extreme weather event and implement learnings from this experience as part of its continuous improvement.

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*Sky Muster satellite capacity to airlines compared to limited data plans for consumers*

- Industry has expressed interest in the possibility of expanding nbn's product range to include mobility products to serve consumers.
- As a first step nbn has been working with Qantas to trial Wi-Fi on aircraft using idle capacity on the Sky Muster service.
- nbn has indicated that the data requirements for providing in-flight Wi-Fi represent no more than three per cent of a spot beam's capacity at any one time.
- nbn's absolute priority is to Sky Muster users on the ground and ensuring that they have the best experience possible.
- This is why the Sky Muster system is designed so that consumers on the ground will always be prioritised over air traffic.
- NBN Co and Qantas are extending the trial until mid-November 2017.
- Additionally the trial is being broadened with up to 10 aircraft taking part, flying between Melbourne, Sydney and Brisbane.
- nbn's learnings from the trial will help inform the development of future satellite mobility products for the benefit of rural and remote Australians.
- nbn has already announced that it has agreed to carry out a trial of similar in-flight Wi-Fi products for the Royal Flying Doctor Service.
- If the trial is successful, the Royal Flying Doctor Service will be able to expand its tele-health and online health management reliably across regional and remote areas where this was not previously possible.
- nbn is also considering whether similar in-flight Wi-Fi products could be used to assist other community groups.

*Fixed wireless services speeds*

- nbn's fixed wireless network is world class, and has the highest consumer satisfaction scores of all of its technology types.
- The service offers download speeds of up to 50 Mbps, and nbn plans to introduce a 100 Mbps speed tier in 2018.
- Slowdowns of broadband speeds may occur over any access technology, in particular in peak periods.
- A range of factors can impact on the speed and quality of the service experienced by consumers, including how much capacity a retailer buys from nbn, the consumer's in-home set-up and the technology used by online content providers.
- Any consumers who are experiencing slowdowns should liaise with their retailer in the first instance. If the provider believes the problem relates to nbn's network, it will escalate the problem to nbn to investigate.
- Consumers who are dissatisfied with their retailer's response can refer the matter to the Telecommunications Industry Ombudsman (TIO). The TIO can be reached on free call at 1800 062 058 or via its website ([www.tio.com.au](http://www.tio.com.au)).

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- nbn has experienced strong demand for its fixed wireless technology, and as a result it has budgeted \$260 million to upgrade the network.
- The company is using taxpayer's money responsibly to ensure that the network is upgraded in line with demand.

## BACKGROUND

Sky Muster is bringing broadband connectivity to underserved communities in regional and rural Australia where fixed-line infrastructure is not available. Sky Muster services are now available for order to all those in its footprint. nbn continues to address installation services and operational issues of concern to the delivery of quality services to regional Australians.

A total of around 420,000 premises are covered by Sky Muster, with about 240,000 premises ultimately expected to take up a service. As at 28 September 2017 there were 79,358 active Sky Muster services.

As at the same date, there were 543,076 premises covered by fixed wireless, with 199,893 premises connected.

### ***Qantas in-flight Wi-Fi trial on Sky Muster***

nbn has reached an agreement with ViaSat to provide it with its satellite mobility product, to be used for in-flight Wi-Fi for Qantas flights **[non-public]**. nbn and Qantas plan to publicly announce the agreement on 23 October 2017 **[correct as at 12 October 2017]**.

The satellite mobility product is designed to prioritise Sky Muster fixed end user traffic over mobility traffic, and is expected to use no more than three per cent of a spot beam's capacity at any time.

#### **Clearing Officer**

Nadine Williams  
First Assistant Secretary  
Infrastructure & Consumer Division  
Ph (02) 6271 1393  
section 22 and 47F

Date 12/10/2017

#### **Contact Officer**

Andrew Madsen  
Assistant Secretary  
Broadband Implementation Branch  
Ph 6271 1695  
section 22 and 47F

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## WEST COAST OF TASMANIA - TECHNOLOGY CHOICE ROLLOUT

**LEAD/SUPPORT: Nadine Williams / Andrew Madsen**

### KEY STATEMENT:

NBN Co Limited (nbn) is on track to upgrade the rollout of broadband to the West Coast of Tasmania via its Technology Choice Program.

### KEY ISSUES

- The Government is committed to ensuring Tasmania's West Coast has access to fixed line and fixed wireless broadband.
- nbn has advised that construction should commence in the area in the coming months. The commitment to put in place a combination of fixed line and fixed wireless broadband instead of satellite services to more than 2,700 West Coast homes and businesses in Rosebery, Zeehan, Queenstown and Strahan is on track.
- nbn's team is working productively to complete the upgrade and is updating the West Coast Council regularly on the project's progress.
- Fixed line and fixed wireless services should be available to towns on Tasmania's West Coast from mid to late 2018.

*Why is fibre to the curb (FTTC) not going to be used in the fixed line rollout in Queenstown, Rosebery and Zeehan?*

- nbn has advised that the extent of the use of FTTC will be determined during the detailed design process, but it is not an option at large scale.
- Under nbn's Multi Technology Mix deployment model, the company chooses the most appropriate technology for each area to ensure both an adequate quality of service and completion of the network as efficiently and cost-effectively as possible.

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## BACKGROUND

The Government announced an \$18.5 million election commitment to deliver a combination of fixed line and fixed wireless broadband instead of the NBN Co Ltd (nbn) satellite service to more than 2,700 West Coast homes and businesses in Rosebery, Zeehan, Queenstown and Strahan.

nbn advises that it is working on the planning aspects of the construction, and has established a special team to oversee the project. Current activities include transit and local fixed line build (incl fixed wireless components) design, and survey work.

nbn expects that physical construction will begin in the next few months. The company is working towards a ready to connect target for the second half of 2018 for the fixed line build in Rosebery, Zeehan and Queenstown. For the fixed wireless build in Strahan, nbn forecasts that services will be available in mid to late 2018.

exempt s 47G

The Commonwealth Government's portion of the commitment is \$10.5 million and will be administered by the Department of Infrastructure and Regional Development (DIRD) through the Community Development Grants Programme. The remainder of the funding will be made up of \$4.5 million of in-kind funding from the Tasmanian Government **exempt s 47G**

exempt s 47G

nbn made an application to DIRD earlier this year for the \$10.5 million funding and Minister Nash approved the funding and advised nbn in April 2017 (**Attachment A** refers). nbn is working with DIRD to reach agreement on a grant agreement for the release of the funding. nbn has been asked to keep the details of the funding approval confidential until a grant agreement is signed. The Tasmanian Government and nbn have exchanged letters confirming the Tasmanian Government's contribution to the project (**Attachments B and C** refer).

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## ATTACHMENTS

**Attachment A** – Letter from Minister for Regional Communications, Senator the Hon Fiona Nash to Bill Morrow, CEO of nbn dated 26 April 2017

**Attachment B** – Letter to Bill Morrow, CEO of nbn from Tasmanian Minister for Information Technology and Innovation, the Hon Michael Ferguson MP dated 24 November 2016

**Attachment C** – Letter to Minister Ferguson from Bill Morrow dated 24 November 2016

**Clearing Officer**  
Nadine Williams  
First Assistant Secretary  
Infrastructure & Consumer Division  
Ph (02) 6271 1393  
section 22 and 47F

Date 4/10/2017

**Contact Officer**  
Andrew Madsen  
Assistant Secretary  
Broadband Implementation Branch  
Ph 6271 1695  
section 22 and 47F



**Senator the Hon Fiona Nash**  
Minister for Regional Development  
Minister for Local Government and Territories  
Minister for Regional Communications  
Deputy Leader of The Nationals

*PDR ID: MS17-000549*

Mr Bill Morrow  
Chief Executive Officer  
NBN Co Limited  
Level 11  
100 Arthur Street  
NORTH SYDNEY NSW 2060

26 APR 2017

  
Dear Mr Morrow

I am pleased to advise you that I have approved funding of up to \$10,500,000 (GST exclusive) under the Community Development Grants Programme to NBN Co Limited for the West Coast Tasmania NBN – Area Switch project. This approval delivers on a 2016 election commitment.

I would ask that you keep the details of this letter confidential until an Agreement is signed.

Provision of funding is dependent on the preparation and execution by both parties of an Agreement that sets out the terms and conditions under which the funding is provided, and the settling of other details, including confirmation of final project costs.

You must enter into an Agreement within four weeks of the project being approved otherwise the offer of funding will be reviewed and may be withdrawn.

You will shortly be contacted by an officer from the Department of Infrastructure and Regional Development to discuss the Agreement.

The funding amount is provided on the basis that it does not attract GST as the payment will be made by one government-related entity to another government-related entity. This circumstance is covered in the GST legislation: *A New Tax System (Goods and Services Tax) Act 1999*. You may wish to seek guidance from the Australian Taxation Office or your tax adviser on the impact of Community Development Grants funding on your organisation's taxation liabilities.

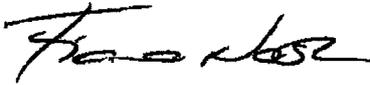
I have written to Senator the Hon Stephen Parry, President of the Senate and Senator for Tasmania, advising of my approval for the West Coast Tasmania NBN – Area Switch project.

Should you arrange a project launch, sod-turn or an event at any stage, please contact the Department on [eventbriefings@infrastructure.gov.au](mailto:eventbriefings@infrastructure.gov.au) to arrange a suitable date.

Please provide notice of your event and three possible dates at least eight weeks prior to the earliest date, so I can do my best to make arrangements to attend your event. If I am unavailable, I will organise a representative to attend on behalf of the Australian Government and my Department will liaise directly with you.

I wish you every success with the West Coast Tasmania NBN – Area Switch project.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Fiona Nash', with a small dot at the end.

FIONA NASH