nbn indicative FY24 Annual Service Improvement Plan – ACCC and Industry Update

6 September 2023

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1 About the Annual Service Improvement Plan

Context

This update on **nbn**'s approach to the Annual Service Improvement Plan (**ASIP**) for FY24 is provided to illustrate the types of service improvement initiatives that **nbn** plans to include in the ASIP for FY24, if **nbn**'s proposed variation to its Special Access Undertaking (**SAU Variation**) lodged in August 2023 is accepted by the Australian Competition and Consumer Commission (**ACCC**).

Under Module 4, section 4A.4 of **nbn**'s SAU Variation proposal, **nbn** is required to publish an Annual Service Improvement Plan, detailing initiatives which will result in enhancing the Retail Service Provider (**RSP**) and/or end user experience that are planned to commence or continue in the financial year and which **nbn** expects will incur material capital or operating expenditure. **nbn**'s SAU Variation proposal requires **nbn** to publish the first ASIP within 20 Business Days of the SAU Variation being accepted by the ACCC. **nbn** is then required to consult with access seekers to develop updated ASIPs, for publication within 20 Business Days after the start of FY25 and FY26.

When published the final ASIP for FY24 will set out:

- 1. the detail of each service improvement initiative;
- 2. the anticipated benefits to end users and/or access seekers;
- 3. the planned timeframes for implementing each initiative; and
- 4. the capital or operating expenditure category as it relates to the Forecast Nominal ABBRR for the Regulatory Cycle.

The initiatives set out in sections 2 to 9 below – which will form the basis of the FY24 ASIP - generally set out the detail of the service improvement along with the anticipated service benefits. However, to provide industry with a clearer view of what the final plan will incorporate the initiative set out in section 2 (the Fibre To The Node/Curb to Fibre To The Premises (FTTN/C to FTTP) Program) also includes an illustrative view of the 'planned timeframes' aspect of this initiative – i.e. the anticipated FY24 milestones. While FY24 milestones are not provided in relation to each initiative below, these will be included in the final plan published by **nbn** on its website, as well as the relevant capital or operating expenditure category to which each initiative relates. The capital expenditure categories to which the initiatives in sections 2 to 9 relate include:

- Capability: Network Upgrade Initiative FTTN FTTP Build;
- Capability: Network Upgrade Initiative Connect (on-demand, and selected proactive migration FTTC/FTTN – FTTP);
- Fixed Wireless Upgrade; and
- Other capex IT (Systems Engineering).¹

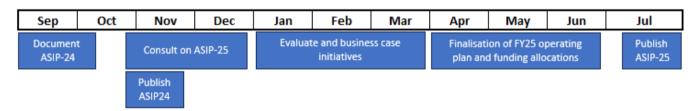
¹ As described in **nbn**'s supporting submission to the Amended SAU Variation (p.30), the Forecast Nominal ABBRR for the First Regulatory Cycle has been updated in several respects (e.g., for WACC and inflation expectations), but is still based on the IOP23 expenditure forecasts. For further detail on the relevant capital expenditure categories refer to Part F: Efficiency of Expenditure and Demand Forecasts of **nbn**'s supporting submission to the SAU variation lodged in November 2022 (pp.45-49 and pp.51-52).

The plan is intended to capture and provide transparency on the key initiatives that underpin **nbn**'s forecast expenditure for uplifting customer experience and service performance for the Regulatory Cycle. It is for this reason that the final plan will specify the applicable expenditure categories.

The first ASIP will reflect **nbn**'s program for FY24, however an important aspect of developing the FY25 ASIP will be consulting with access seekers and other industry stakeholders to obtain their insights on the areas of service experience and potential initiatives that should be considered by **nbn** in developing its service improvement plan. As **nbn**'s FY25 operational planning processes will commence in December 2023, **nbn** is focused on establishing an effective and timely engagement process for the FY25 ASIP so that RSP and industry feedback can be effectively considered and evaluated against the criteria in the SAU within the **nbn** capital planning envelope, timing and processes.

Timing

Subject to SAU Variation acceptance by the ACCC, **nbn** is targeting publication of the FY24 ASIP as quickly as possible thereafter. To ensure **nbn** can effectively consider industry views in preparing the FY25 ASIP, **nbn** intends to commence the consultation process with industry at the same time we publish the FY24 ASIP.



(Note these timeframes are illustrative only and will be adjusted once a decision is made by the ACCC regarding whether to accept the SAU Variation.)

Executive Summary

nbn's capital expenditure in FY24 is dominated by two key programs, with the initiatives associated in delivering the FTTN/C to FTTP and the Fixed Wireless upgrade programs accounting for approximately 60% of **nbn** capital expenditure in FY24. These two programs not only bring with them significant technical capability improvements but are expected to enable a material change in the quality of service experienced by RSPs and their customers. Under the FTTN/C to FTTP program, end users will have access to higher speeds along with greater consistency of experience and enhanced network reliability. The Fixed Wireless upgrade program will not only expand the footprint of end users that have access to this technology but provide a material uplift to the minimum busy hour performance of these services and introduce additional high speed tiers.

As part of our simplification and continuous improvement program there are a range of other initiatives that the **nbn** team is working on, which over the course of the year are expected to result in improved service experience outcomes for RSPs and/or their customers. These improvement initiatives are generally centred around simplifying the platforms and operational environment, improving the reliability of services and products, enabling light-touch and faster service provisioning and fault rectification, and building platforms which enable RSPs to reduce costs and improve consistency of service.

Summary of FY24 Annual Service Improvement Plan

Program	gram		
FTTN/FTTC to FTTP upgrade	FTTN to FTTP Build and Fibre Connect program		
Fixed Wireless upgrade	Increasing capacity and coverage of Fixed Wireless network		
Simplification	Simplify our network for our customers		
	Enhance Customer Service Delivery		
	Improve RSP Experience		
	Service Evolution		
	Partner Simplicity		
	Business Operations		

2 FTTN/FTTC to FTTP Program

Program Summary

The FTTN/C to FTTP upgrade program is a multi-year initiative which is designed to expand **nbn**'s FTTP footprint to an additional 3.5 million premises by the end of 2025, which would increase **nbn**'s FTTP-accessible footprint to over 7.5 million premises. With these upgrades, **nbn** is on target to enable 10 million premises (including HFC), or up to 90% of Australian premises within the fixed-line network, to access the **nbn** Home Ultrafast wholesale speed tier, which is capable of achieving wholesale download speeds of 500 Mbps to close to 1Gbps. Key focus areas for this program are the build, the fibre connect program with RSPs and simplification of the associated processes.

Planned service benefits

An FTTP-enabled network has many advantages over traditional copper-based networks:

- 1. Speed performance: Copper networks face inherent speed limitations when compared to fibre-based networks. The fibre upgrade program will significantly increase the number of premises that have access to the nbn Home Ultrafast wholesale download speed tier, which is capable of achieving wholesale download speeds of 500 Mbps to close to 1Gbps. In addition to expanding the footprint for higher speed tiers, the FTTP upgrade program will play a role in addressing the small cohort of underperforming copper lines that are not currently capable of achieving speeds of 25 Mbps.
- Consistency of experience: An FTTP network also enables end users to encounter a higher consistency of service and user experience. That is, subject to the appropriate capacity being made available by nbn and RSPs, the speeds experienced by an end user should experience less fluctuation than that experienced over copper lines.
- 3. **Network reliability:** Copper lines, particularly those that are aged, can experience reduced speed, instability or cease working completely as a result of external factors such as water ingress. An FTTP network brings significantly improved network reliability due to the inherent technical capabilities and properties of fibre resulting in lower fault rates, less dropouts and greater speed predictability.

As end users take up services on the FTTP network, these benefits should be demonstrated over time through a reduction across the fixed line network in:

- Reported access network faults;
- Speed related fault enquiries;
- Drop out frequency; and
- Network remediation activities.

The rate at which these reductions occur is dependent on the rate that end users migrate onto the FTTP network.

FY24 milestones

Network Upgrade Initiative - FTTN to FTTP Build (network enablement and capability)

The FTTN to FTTP Build program was announced in September 2020, with work commencing in November 2020 and the current scope of works planned to conclude in December 2025. The Build program is focused on the deployment of a fibre local area network, including overbuilding many of the underperforming lines, and will ensure **nbn**'s service qualification system is progressively updated, so that RSPs and end users are able to place an FTTP order at the associated premises. The key milestone targets for the FTTN to FTTP Build anticipated for FY24 are set out in the table below.

	FY24
Forecast FTTN & FTTC premises added to fibre upgrade footprint	[To be included in final plan]
Forecast cumulative upgradable FTTN & FTTC premises	[To be included in final plan]
Forecast underperforming lines overbuilt	[To be included in final plan]

Fibre Connect Program (migration and experience realisation)

Fundamental to realising the benefits of the FTTP upgrade program is the migration of end users from the existing copper network onto the upgraded FTTP network. RSPs play the most important role in actively promoting and facilitating this migration: only when end users have been migrated will they be able to take advantage of the significant capability enhancements offered by the upgraded network.

To help support the rate at which end users migrate onto the upgraded network, **nbn** is working closely with RSPs to actively promote and facilitate a faster and positive service experience in migrating to FTTP technology. Activities in this space that **nbn** plans to continue through FY24 include:

- Promotional Marketing and Advertising campaigns from nbn to raise awareness of upgrades and the benefits of moving to FTTP and higher speed services.
- **Providing marketing support for RSPs** to raise awareness and action from end customers through **nbn**'s Marketing Development Funds, where **nbn** and RSPs co-fund marketing activity.
- Rebate programs for RSPs to support promotional offers and activity by RSPs to encourage customer migrations to FTTP.

Simplification

In addition to helping support the volume of migrations to the FTTP network, **nbn** has dedicated significant time and resources to improve the migration experience. Examples of improvements that **nbn** has or will be delivering in FY24 to facilitate a faster migration, and improve the service experience associated to the migration, include:

• **Proactively addressing FTTN underperforming lines:** FTTN services in the FTTP upgrade footprint that cannot attain 25/5 Mbps will be addressed proactively. This means that **nbn** will be progressively changing the service class of these lines so that end users are not required to order a higher speed tier at these premises in order to connect to the FTTP network. This will be applicable to premises with an

- underperforming line irrespective of whether the end user has an active service or is placing a new connection order.
- **Never Connected:** FTTN premises within the fibre upgrade footprint that have never been connected to the network will be converted to Service Class 1 so that when they first connect to the **nbn**® network, they are able to place an order for a fibre connection (note there is no minimum speed tier requirement for these cases).
- **Fibre delivery in a day (FDIAD): nbn** is currently updating its FTTN to P upgrade process to enable a single appointment for the majority of orders through removal of the pre-activation work order.² In addition to reducing the number of appointments required this is also expected to reduce customer lead times for upgrades to occur. This has required updates to fibre installation standard practices. With implementation commenced in July 2023, the benefits of this program are anticipated to be realised over the course of FY24.
- Incomplete on first appointment: Some Fibre Connect orders are unable to be completed on the initial appointment using industry standard installation practices, and therefore require network remediation activity. These will now be actioned through a refined complex lead-in process designed to give customers, RSPs and technicians a better experience through the complex order completion path with appropriate visibility of the remediation work scope and completion date progress available throughout the process. Implemented in July 2023, the benefits of this program are anticipated to be realised over the course of FY24.

² Not available at all premises and subject to feasibility assessment.

3 Fixed Wireless Upgrade Program

Program Summary

nbn is undertaking a major upgrade of the Fixed Wireless network to increase both the capacity and coverage of the Fixed Wireless network. The program of upgrades is planned to be undertaken between FY23 and FY24. As part of this initiative total cells in the network are anticipated to increase nearly 2.5-fold from 23k to 60k.

The program will ultimately deliver an expanded coverage footprint and access to faster speeds across the **nbn** Fixed Wireless network as well as a significant uplift in available capacity and data for **nbn®** SkyMuster customers.

Planned service benefits

Upgrading the Fixed Wireless network is designed to give more homes and businesses access to faster download speeds. This will improve the end user experience by:

- enabling faster and more consistent speeds across the network, including at the busiest times. Fixed
 Wireless network improvements are expected to allow **nbn** to implement a new measure to indicate the
 network's capability to achieve 'typical wholesale busy period speeds' of at least 50 Mbps (download);³
- the introduction of two new high speed Fixed Wireless tiers.

In particular, expanding the reach of our Fixed Wireless network and migrating approximately 120,000 Satelliteonly (including ~25,000 active) premises to the Fixed Wireless network will enable more people currently in **nbn** Satellite areas access to Fixed Wireless. These end users will benefit from:

- access to higher speeds across the network;
- reduced network congestion; and
- improvement in the quality of voice communications.

FY24 milestones

³ 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. This means that this measure is not the same as, but is likely to be similar to, the connection's capability (if retail level and end user influences are minimal). Currently **nbn** publicly reports on a network design metric that influences its cell upgrade program (which prioritises cells for upgrades to ensure a minimum 30 day average busy hour wholesale download speed of 6Mbps on at least 99% of cells), but which is not referable to end user experience.

4 Simplification: Simplify our network for our customers.

Program summary

nbn's Network Simplification is a multi-year program which commenced in 2022. The program involves timely investment aiming to simplify and evolve the network over time, ensuring **nbn** continues to meet customer demand and efficiently navigate technology end-of-life events.

The FTTP network will be evolved via the delivery of a new platform (XGS-PON) to mitigate lifecycle risks, meet capacity growth, and enable multi-gigabit residential and business services.

The transport and aggregation networks will be evolved to address lifecycle risks and increase scale resulting in an evolved network that has addressed end of life events whilst meeting customer demands. A move towards standards-based network management platforms will support future capability offerings to market and to ensure customer growth can be supported including:

- Multi-gigabit capability;
- Higher speed interconnect incrementally available for RSPs across POIs; and
- Lifecycle risks mitigated across transport, FTTP and HFC networks.

Planned service benefits

This is predominantly an investment which will ensure end users are not affected by technology end of life events and they will continue to obtain a quality service over these networks. Anticipated benefits include:

- · minimising service disruptions; and
- supporting continued quality of service experience.

FY24 milestones

5 Simplification: Enhance Customer Service Delivery

Program summary

Enhance Customer Service Delivery is a multi-year program with a three-year trajectory. We are now in our second year of the program. The Enhance Customer Service Delivery (**ECSD**) initiative is specifically focused on optimising the end-to-end customer journey and driving improvements that uplift customer experience by removing customer effort and making it simpler to obtain services and products from **nbn**. We are seeking to enable a seamless and positive service experience that is aligned to the end-to-end customer value chain, and industry wide commercial and productivity goals.

Planned service benefits

As the program progresses, **nbn** expects to observe a gradual improvement on the following service experience indicators:

- Reduction in service disruption and customer effort through proactive detection and repair of performance issues;
- Improved reliability of appointments being met;
- · Reduction in repeat appointments; and
- Reduction in time to provide and restore services.

FY24 milestones

6 Simplification: Improve RSP Experience

Program Summary

nbn recognises that success will only come if **nbn** and RSPs work together to fulfil the needs of the customer, drive customer experience, and connect and retain even more Australians to fast, secure and reliable broadband. **nbn**'s products and roadmap must drive towards simple, frictionless interactions that enable our retail partners flexibility to prioritise, plan and innovate to deliver value to our customers.

This program is centred around improving communication processes with RSPs, continuing the development of **nbn**'s multi-year 'service health' program, delivering additional RSP requested enhancements to **nbn**'s application programming interface (**API**) catalogue, enhancing **nbn**'s ability to proactively monitor and support critical systems, and enhancing the Network-Network Interface (**NNI**) framework.

Planned service benefits

This program is expected to drive service experience improvements for RSPs and end users including:

- Enabling RSPs to better understand, plan and deliver the associated benefits from **nbn** key initiatives to their customers;
- Driving customer experience improvements with transparent, simpler tools enabling RSPs to correctly identify where service issues should be reported to **nbn** whilst reducing incorrect and repeat faults being raised that are not caused by **nbn**'s network;
- Improved RSP integration with nbn, optimising end customer journeys and enabling RSPs to innovate and develop efficient, low touch digital experiences; and
- Improved reliability of nbn's core systems providing the foundation for RSPs to deliver a great end customer experience.

FY24 milestones

7 Simplification: Service Evolution

Program Summary

While the mixed technology model has helped getting premises connected to high-speed broadband services faster, it has resulted in multiple systems and technology-specific bespoke processes for customer and network service teams. Under the Service Evolution program **nbn** will implement standardisation of our customer and network service processes across all network access technologies centred around the following primary service activities:

- Ordering (New/modify/disconnects);
- Service faults (proactive/reactive);
- Network management and faults;
- Customer communication; and
- Customer enquiries.

This will incorporate a single view of all customer service impacting events – irrespective of access technology – within **nbn** to enable greater consistency in the management of customer orders, service faults, network outages (planned/unplanned), and performance degradation.

Planned service benefits

Standardisation of our customer and network service processes will have obvious direct benefits for **nbn**'s operational efficiency. These operational benefits are also expected to result in improved RSP experience including through the following changes:

- **Improved RSP communication:** RSPs will receive consistent communication irrespective of access technology.
- **Proactive assurance:** As a result of proactive service performance monitoring being standardised across access technologies, **nbn** will be able to proactively take the right actions early and address certain issues without customers having lodged a service incident. This differs from proactive assurance initiatives being considered in the ECSD space as proactive assurance here applies to the entire network (e.g. transit and local area network) and is not focused solely on the access network; and
- **Improved assurance timeframes:** Standardised systems and processes will enable **nbn** to more efficiently identify and address service issues.

FY24 milestones

8 Simplification: Partner Simplicity

Program Summary

This component of the Simplification initiative is focused on simplification of RSP interfaces with **nbn**. This is a multi-year program in its third year and will culminate in 2025.

We have progressively been moving to a solution that drives efficiency and enables RSP innovation. We will have one common partner facing portal removing the necessity for 'swivel chair' activity. We are introducing new lightweight APIs making it much easier and cheaper to integrate RSP systems directly with **nbn** systems. Our automated testing, continuous integration and continuous deployment mean less planned outage windows and greater efficiency for RSPs.

Planned service benefits

nbn expects that the initiative will deliver a leaner systems framework that will enable a better partner experience, through faster flexible change management and smarter processes. For example:

- One partner facing portal with consistent experience (a reduction in portals from four RSP portals to one, with a consistent look and feel):
- Configurable campaign strategic capability;
- Loosely coupled product and service architecture;
- Transition from ebXML to simple, light weight API interfaces;
- Cost saving from a simplified architecture;
- New user interfaces delivered as part of RSP portals; and
- Ability to deliver RSP campaigns in weeks, not months.

FY24 milestones

9 Simplification: Business Operations

Program summary

This program of work will run throughout the FY24 year and is centred around the delivery of high priority business/customer impacting capabilities to improve operational efficiency and customer experience. Key initiatives for the program include FTTC optimisation, uplifting the sandpit testing environment, introducing a higher transmit power on FTTP Optical Network Termination (**ONT**) devices, increasing the network power of HFC to 60V, and the introduction of silent failure detection on HFC and Optical Line Terminal (**OLT**) network.

Planned service benefits.

The planned outcomes from this program include:

- Speed and stability improvements for FTTC end users;
- In uplifting the sandpit environment nbn expects to:
 - Eliminate long lead times for RSPs to take up new products (reducing user acceptance testing timeframes, allowing RSPs to sell and bring in revenue from new products up to six months earlier than would otherwise be the case);
 - Simplify the onboarding process for RSPs for new products, product changes and migration/network grooming;
 - Sandpit testing to be in alignment with **nbn** production network removing re-work and eliminating defects in pre-production environment; and
 - Add in **nbn** capability to execute regression test on new firmware, software, CPE, hardware in a controlled environment across all technologies.
- By introducing a higher transmit power into the FTTP network this will resolve performance issues on ONTs where signal levels are below optimum threshold.
- Increasing the power in the HFC network will result in a better experience for HFC end users.
- Introduction of silent failure detection will enable network operations to work on an issue proactively, without RSPs/customers raising an issue.

FY24 milestones