



Update on nbn Industry Consultation Paper: Procurement options for third-party fibre

Introduction and background

nbn's mandate is to provide coverage to all areas of Australia, and to connect all residential and business premises regardless of where they are located. **nbn** plays an important role helping to lift the digital capability of businesses of all sizes, improving the accessibility of wholesale business-grade broadband and supporting retail competition.

In the business fibre market, it is important for **nbn** to be as efficient as possible in the deployment and delivery of wholesale business-grade infrastructure and services. This efficiency helps to support lower wholesale prices as well as retail choice for enterprise and government customers. Additionally, returns generated by **nbn** from the business market allow the company to further invest in the network (including in regional and remote areas).

Despite **nbn**'s clear mandate a number of private sector network operators have raised concerns about **nbn** overbuilding existing business grade networks. In response to the concerns, **nbn** committed to explore whether commercial and/or operational benefits may arise from **nbn** establishing an industry wide procurement process to support the use of third-party dark fibre for the purposes of connecting business grade fibre services.

While **nbn** understands industry views about **nbn** deploying business fibre to premises already connected by existing fibre, it is important that **nbn** delivers infrastructure and services in the most efficient way, while recovering its costs and earning a commercial rate of return while doing so. **nbn** is committed to achieving its mandate in the most efficient way possible and has a history of using a combination of existing in-place infrastructure (such as third-party backhaul, Telstra and Optus HFC and Telstra pit and pipe) as well as deploying new fibre and other network infrastructure.

On 28 January 2020, **nbn** issued an industry consultation paper titled: *Options for establishing an industry-wide procurement process to make greater use of third-party fibre infrastructure*. The purpose of this consultation was to seek industry feedback on two possible processes for procuring dark fibre services to enable **nbn** to meet the growing demand for broadband connectivity from Australia's business, enterprise and government customers. The two proposed models for an industry-wide procurement process were a reverse auction process and a standard Request for Proposal (**RFP**) process. In presenting these models **nbn** acknowledged the significant amount of technical and operational specifications that would need to be met for the proposed procurement model to be feasible for both **nbn** and third-party suppliers, in order to achieve seamless delivery of **nbn** business-grade services.

In response to the industry consultation paper **nbn** received seven submissions from industry participants varying from large infrastructure owners to smaller players with localised footprints. While there was interest in both options, most responses favoured the standard RFP process over the reverse auction, however all parties indicated that further technical and operational discussions would need to take place, and these would be



assisted by **nbn** providing indicative connection sites so that providers could show their commercial and operational capabilities across a range of potential premises.

Participation in the Proof of Concept

Following technical discussions with respondents over a period of approximately three- months, a proof of concept (**PoC**) procurement exercise was announced on 18 May 2020 and commenced on 9 June. This involved 31 sites across a range of premises types, underlying technologies, and locations across Australia to allow respondents to demonstrate their commercial and operational capabilities. Locations that were currently served by residential FTTP were excluded from the sample.

In total, 6 parties participated in the PoC and submitted quotes or information for those sites that each party would be capable of serving with existing dark fibre network and minimal additional build.

nbn received the following number of quotes for each region type and technology type (the number in brackets is the number of sites for each technology within the 31-site sample):

Region Type	Number of Quotes	Base Technology	Number of Quotes
Metro (15)	14	FTTB (5)	8
Regional (11)	4	FTTN (13)	5
Rural (5)	0	FTTC (5)	5
		HFC (3)	0
		FW/Sat (5)	0

There were also respondents that did not quote a price but indicated an ability to serve a location. These respondents are not included in the above table.

Results of the Proof of Concept

Providers that participated in the PoC provided location data and quotes on a strictly confidential basis. Accordingly, **nbn** is only able to share with industry its findings using high level aggregated data.

At a high level, none of the provider responses that included proposed pricing were commercially viable propositions for the leasing of third-party dark fibre for the purposes of delivering **nbn** wholesale business-grade services. In several cases **nbn** would still need to undertake build activity to connect the third-party fibre in-building, further increasing the cost and time to deliver. Additionally, many of the responses flagged that meeting **nbn**'s required SLAs, while possible, would prove challenging.

Certain respondents noted the ongoing development of both their dark fibre offerings and service assurance capabilities, and **nbn** acknowledges that many providers have continued to uplift their capabilities since the conclusion of the PoC. **nbn** will continue to engage with infrastructure providers on their improved dark fibre services to ensure that ongoing network deployment is undertaken on the most efficient and commercially viable manner.



nbn's approach to assessing the results of the Proof of Concept

As detailed in **nbn's** January 2020 Industry Consultation Paper, for **nbn** to be able to effectively incorporate third-party dark fibre into **nbn's** business fibre offering the overall economic costs and/or time to deliver must be lower than the case of **nbn** deploying its own infrastructure (including a commercial cost of capital no less than the rate agreed by **nbn** with the ACCC in its Special Access Undertaking)¹. Accordingly, **nbn's** assessment of the PoC has focused on:

1. The indicative cost of leasing a third-party dark fibre connection versus **nbn's** build cost. Specifically, **nbn** has calculated the total indicative cost of leasing a dark fibre connection at a specific location versus **nbn's** indicative build cost for an Enterprise Ethernet connection at that same premises. The total indicative leasing cost for a third-party connection at a premises has calculated as follows:

Total third-party dark-fibre connection leasing cost = Quoted upfront charge (excluding GST) + 5 Year NPV of Annual Recurring Charge (assuming a 4% discount rate) + Other Charges Payable

A five-year period was selected for the comparison to reflect **nbn's** current five-year standard deal term for its deferred charge build arrangements as stipulated in its s87B Undertaking accepted by the ACCC. A discount rate of four per cent has been used in line with Guidance by the House of Representatives Standing Committee on Infrastructure, Transport and Cities².

2. Whether the respondent indicated that it was able to meet **nbn's** required SLAs in terms of connection and fault rectification.

Comparing the cost of third-party dark fibre services to nbn's build cost

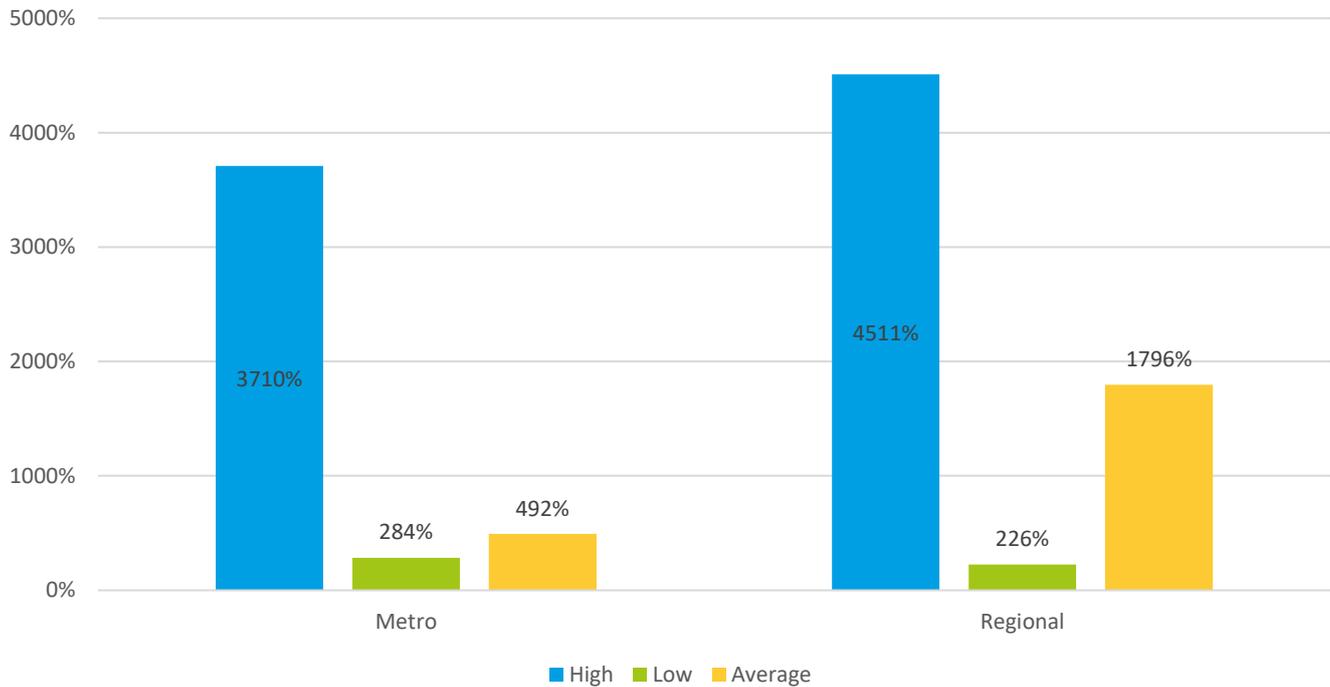
As shown in the tables above, the majority of sites where respondents were able to provide proposed pricing were in areas of **nbn's** footprint which attract the lowest internal build costs to upgrade to a point-to-point fibre connection.

The graph below shows the difference between **nbn's** average build cost for those sites where respondents were able to provide indicative pricing, compared to the average estimated procurement cost over a five-year period. Given the commercial sensitivity of the price information provided by PoC participants, **nbn** has presented the data as a percentage, showing how much the procurement of a dark fibre connection is more (or less) expensive than **nbn's** estimated build cost. **nbn** has shown results for both high-cost and low-cost premises as well as an average cost for all premises included in the PoC.

¹ See nbn Industry Consultation Paper: Options for establishing an industrywide procurement process to make greater use of third-party fibre infrastructure (28 January 2020) Pp. 7 -8.

² In the [Building Up and Moving Out](#) report tabled in Parliament in September 2018, the House of Representatives Standing Committee on Infrastructure, Transport and Cities recommended the adoption of a 4% discount rate for the appraisal of Commonwealth infrastructure projects. See https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/FlagPost/2018/October/Discount-rates.

Figure 1: Percentage difference between average procurement cost over five years (excluding GST) and nbn build cost for PoC premises



In Figure 1, a score of 0% would indicate equivalent value between the average 5-year procurement cost for the dark fibre connection and the **nbn** build cost for the premise.

As shown in the above graph, it is clear that the indicative prices received as part of the PoC were not commercially viable options for **nbn**. A key reason for this is that the cost to procure a dark fibre connection from a third-party provider involves a mix of upfront and ongoing recurring charges where **nbn**'s build cost only involves a one-off upfront cost.

As the PoC was a desktop pricing exercise, none of the quotes provided by respondents as part of the PoC would have progressed to the procurement of these services by **nbn**. Accordingly, it appears that several respondents quoted retail level prices for dark fibre services which are typically among the most premium offerings available at a retail level. By contrast, in conducting the industry consultation **nbn** envisaged a procurement model that encouraged a lower cost approach from providers that desired to secure revenue from a sunk and potentially under-utilised asset in a competitive market. Despite this, **nbn** acknowledges that in a genuine commercial tender for a large number of sites the prices may result in lower quoted prices (this fact was reflected in subsequent discussions with a number of PoC participants). As Enterprise Ethernet and other **nbn** business grade services are typically an on-demand service, large commercial tenders are not feasible, however for other dark fibre use cases, it may potentially be more feasible to tender a large number of sites at once.

The extent to which third parties could meet nbn's required SLAs

While some of **nbn**'s stated technical and operational SLAs may have been able to be met by PoC participants, **nbn** has assessed that the additional layer of responsibility in the end-to-end supply chain would introduce complexity which would be likely to impact the connection and service timeframes for business customers. This was shown to be particularly the case for the enhanced service restoration SLAs on Enterprise Ethernet, which



would require third-party providers to provide assurance more rapidly than **nbn** customer facing enhanced SLAs to ensure that these SLAs are met.

Concluding the consultation

nbn would like to thank all respondents that contributed to the consultation and participated in the PoC. **nbn** acknowledges the constructive engagement and interest from industry throughout the process.

Based on the results of the PoC as well as discussions with participants, there is no evidence to suggest that an industry-wide procurement model for third party dark fibre connections to deliver wholesale enterprise services would be commercial or operationally feasible based on current **nbn** build costs, available third-party footprint, operational timelines and SLAs. Therefore, **nbn** will be concluding the consultation at this time.

Even though **nbn** is concluding its industry consultation in respect of this matter it is important to note that we have found it highly beneficial. In particular, the consultation has highlighted the number and variety of fibre assets and services that exist in Australia, which could be leveraged by **nbn** should there be a commercial need to do so in future.

Since the beginning of the consultation, a number of infrastructure providers have developed and launched commercial dark fibre products or indicated a willingness to explore additional dark fibre capabilities and offerings. **nbn** remains interested in procuring dark fibre or similar products from suppliers where it makes commercial and operational sense to do so and in circumstances where the issues noted in the consultation paper and this conclusion paper can be appropriately resolved.

Suppliers and infrastructure providers can engage with **nbn** on genuine commercial opportunities via **nbn**'s existing tender processes, however any supplier is welcome to reach out via [dark fibre procurement@nbnco.com.au](mailto:dark_fibre_procurement@nbnco.com.au) at any time with a request or proposal and the request will be examined and the appropriate team will be put in contact with the supplier for further discussions.

Accordingly, **nbn** will continue to examine the potential for the use of third-party dark fibre services to lower deployment costs across its network and will continue to engage with industry on the potential use cases.