# **NBN Access Pricing – Context and Constraints**

The question of whether NBN Co is appropriately pricing wholesale access to its network needs to be considered in the context of several broad aspects – specifically the progress in the development of its network, the nature of that network and possible constraints which can apply to Federal Government business undertakings, such as legal limitations on the levels and structures of their pricing for certain activities.

The following comments are made from the perspective of 30 years' experience with the policy development of, and implementation of, cost recovery for several Commonwealth agencies, especially service definition and related pricing levels and structures for Government Business Enterprise and statutory authority agencies providing services to and oversight of their respective industries, as well as extensive work on consideration of the merits of capital expenditure proposals and strategic/financial business planning for such agencies, as well as development of a range of performance measures for agencies and their main activities.

#### The Internet

The very rapid pace of change with information technology over the last 35 years has, among many other things, enabled the ongoing fast and unpredictable development and delivery of a wide range of new products available via the internet, with the nature of many of these, such as video and online gaming, driving rapidly increasing demands for bandwidth and data download requirements, particularly for users, including families, who have multiple persons sharing their connection. These developments have direct business growth implications for the economy and potential significant benefits for the Australian community, especially through the clear potential for the NBN to provide much improved communications in rural and remote areas, with direct business and social benefits.

Of course, some internet users mainly access email and undertake modest levels of web browsing, may only have a couple of active users per service and thus have low requirements for internet speeds and capacity, so the full potential of NBN cable access is of minor importance for them, and they probably find that current ADSL2 services meet their needs.

That said, the very fast pace of development of new types of internet services may well mean that even clients with currently modest usage may soon see a need for faster and higher capacity internet access – i.e. the NBN network is essential infrastructure for the future.

#### **NBN** – Nature of the Business

An internet network in Australia, of appropriate capacity/technology and delivered to most users by terrestrial cable systems, is inevitably going to be expensive to install due to the low population density and sheer distances to many rural cities and townships, not to mention rural properties and some very remote communities in Australia – where satellite NBN is the most economical approach. Arguably, the NBN is therefore a natural monopoly and rightly should be operated by a single organisation.

There is the question of whether the NBN Co is operating in a competitive environment, given that internet access is possible via the mobile phone network and via dedicated wireless providers in some cities, plus satellite services which, at significant cost, are really necessary only for users in some remote areas who have no realistic alternative for internet access.

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There is also the recent introduction of the 5G network, which is seen by many as the future of communications and internet access, although 5G operates at very high radio frequencies, which means that its effective range is quite short, as line of sight to a tower is needed for it to be accessible. Commercial considerations would most likely mean that 5G would be prioritised in high density population areas (where its accessibility would still be impacted by undulating terrain) and would be most unlikely to be provided in many rural and more remote communities, where the capital costs per user would be very high.

At a political level, there have been arguments put that the private sector should have been given the opportunity to install at least parts of this national internet access network. That, however, would have meant that the systems put in place would probably have been driven mostly by commercial considerations, such as minimising capital costs per customer and minimising competition. This most likely would have resulted in a concentration by the private sector on delivering high speed internet to very high density major cities, such as happened when cable TV was introduced in the 1990's, and that event delivered the absurdity of the two providers duplicating the cabling within the same suburbs to ensure competition in service delivery – a major inefficiency in capital expenditure on infrastructure (paid for by their customers), which the NBN approach avoids.

## **NBN - Stage of Development**

While the NBN has been developing its infrastructure for around 10 years, there is still work to be undertaken before some areas have access to NBN internet services. This means that the largest single infrastructure development in Australia's history has needed massive levels of funding and there would be significant financial implications flowing from this very large capital investment in terms of the overall major negative cash flows due to the large capital outlays over a lengthy time period and the time delays before sufficient levels of customers are achieved to allow the point to be reached where the full costs of the network, in terms of operating costs, fixed costs (mainly depreciation/amortisation) and a suitable return on funds employed, can be achieved. The NBN is still a long way short of being financially self-supporting.

For such reasons, it is very unlikely that the private sector would have been prepared to deliver such a national network at such a comprehensive level as is being undertaken by the NBN, as they would not have been prepared to wait years before being able to achieve positive cash flows and profitability.

## **NBN** – Constraints on Pricing

It is not widely understood that the Federal Government and its agencies are subject to certain very specific legal constraints as to the levels, nature and structure of the charges they apply for delivery of services and licences and in relation to the recovery of the costs of certain other activities which they may undertake.

These legal constraints fall into two main areas. One is essentially administrative, which is whether the agency applying such charges has been properly authorised to do so via specific legislative provisions empowering the agency in question to apply such charges. While apparently straightforward, this area was described at a public forum by the late Dennis Rose QC, former Chief General Counsel for the Commonwealth, as "a legal minefield". Of course, any shortcomings found in such provisions can be corrected relatively easily by suitable amendments to the relevant legislative provisions.

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The second area of legal constraints on pricing by Commonwealth agencies is much more tightly defined and inflexible, as it relates to Constitutional law. Specifically, the overall net effect of parts of sections 51, 53, 54 and 55 of the Australian Constitution is that charges for certain activities, specifically in relation of the provision of services and licences need to be applied in such a manner as to recover reasonable costs, but not to be such as to represent taxation.

The courts, and specifically the High Court of Australia, have, over many years, clarified what conditions must be met so as to apply specific charges for certain activities where the funds in question can be collected directly by Government agencies. Specifically, any such charges applied need to be such as to reflect the costs of the activities undertaken to deliver services or issue licences. Decisions by the High Court have clarified that costs recovered by charges authorised by specific legislation for an agency must be such as to represent reasonably the cost of delivery of the services or licences in question, and these costs can include depreciation and an appropriate rate of return on the level of funds employed. The High Court has also determined that **reasonable** averaging of costs across users is acceptable, although deliberate cross-subsidisation between groups of customers would not appear to meet that provision. Charges not clearly relatable to costs in a reasonable manner are not acceptable and explicit Government subsidies would be needed to cover such costs. The High Court has also considered what types of activities amount to a "service".

If these conditions are not met, then such funds, if raised, must be collected under explicit taxation legislation, which must be stand-alone and not deal with other matters, and where the proceeds must be paid into Consolidated Revenue and subsequently appropriated to the agency in question via the Federal Budget. Special Appropriation legislation is often used so that funds collected by such taxation methods are automatically appropriated to the agency in question. Examples of this are revenues raised to cover the costs of regulatory oversight of an industry, as many such costs cannot be regarded as being incurred in relation to the delivery of services or licences as the activities in question are analogous to auditing or policing, where no specific economic benefit results to the client from the activities in question, such as when an inspection, undertaken often at some significant cost, finds that the subject has been fully in compliance with regulatory requirements.

These specific Constitutional legal requirements mean that Government agencies cannot apply "economic pricing" where they would charge what the market can bear, with little, if any, clear relationship to the costs of delivery of the services in question.

These legal constraints apply where the agency is effectively a monopoly provider of the services in question, which is the case across at least many parts of the NBN's geographical coverage. A specific legal opinion would be needed to confirm that the NBN is or is not in a competitive market and whether or not it is subject to the above legal limitations as to the structure and levels of its pricing.

A significant High Court ruling on such matters was in 1999 with the case *Airservices Australia v Canadian Airlines International Ltd*. Comments by the Attorney-General's Department on this case are available at <a href="https://www.ags.gov.au/publications/legal-briefing/br53.htm">https://www.ags.gov.au/publications/legal-briefing/br53.htm</a>

## **NBN** - Factors Influencing Pricing

As the national NBN coverage is still a work in progress, there would need to be careful, no doubt very complex, consideration of the level and nature of costs which underpin the current delivery of the services by the NBN.

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For example, for appropriate pricing, the costs of works in progress would need to be identified and separated from the immediately recoverable capital costs of the commissioned, active components of the network. In addition, there is the issue of the number of premises/customers which can potentially utilise NBN services, tempered by assumptions as to the expected longer-term degree and rate of take-up of NBN services by those premises/customers. There would need to be a reasonable estimate of the potential customer base for active NBN services, so that costs could be reasonably estimated per customer, taking account of speed and capacity needs, as appropriate, to impact on the consequent pricing levels and structures.

Even though the NBN may be subject to the legal constraints outlined above as to the levels and structure of its charges, there is a reasonable degree of flexibility possible as to how costs are calculated in relation to the components of the access service. It would be the case that consideration is given to determining the average, relatively fixed, cost of providing access to each location, plus there would be the question of how the internet speed options should be costed and thus priced. In other words, there should be a logical basis for determining how much more should be charged for higher speed NBN services compared to the charge for basic minimum speed levels. Similarly, the costing and pricing in relation to various levels of monthly download allowances can probably vary within a reasonable range of outcomes, although final charges to retail customers would also probably be influenced by what the ISPs pay their source suppliers for data quantities overall.

#### **Final Comments**

The pricing of NBN services via a range of ISP's does not appear to be that much higher than the charges by ISP's for naked DSL services, although there is a question as to the cost and availability of low speed NBN, which is all that some users need. Where an ADSL service is being provided alongside a home telephone service, the charge for that telephone service is often very high and covers the line provision costs, so comparisons between NBN and ADSL costs should be on a like-for-like basis of internet plus phone services, or for internet alone, together with consideration of connection speeds, noting that ADSL is only typically comparable to the lowest speed of the possible NBN services.

With regard to the application of a charge for transferring a NBN user between providers, it is mainly a question of whether that charge reasonably reflects the costs to NBN Co of that action. If so, then there is no case for doing without that charge, as the alternative would be that, if the NBN Co does incur such costs, but does not explicitly recover them via a distinct charge, then they would need to cover that cost as part of other charges, arguably amounting to a cross-subsidy of sorts, which may well have legal implications.

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