

ECONOMUSE

An introduction to utility pricing – and how it should be applied to the NBN

Pricing structures are the key to the most effective and efficient usage of utilities.

The NBN needs to take notice.

The focus of the new team at NBN Co – quite naturally – has been to ‘stabilise’ the rollout. That has come to mean implementing Malcolm Turnbull ‘multi technology mix’ to complete the network more quickly and more cheaply than the previous version.

Now the team should reconsider the business model before the next corporate plan locks it down. Pricing is the key. What structure will efficiently recover costs, give more Australians access to really fast broadband, and promote take-up and utilisation of the NBN?

Ideally, prices are set at marginal cost – but all costs have to be recovered. The ideal price works in most industries because marginal cost is above average cost. But when there are large fixed costs, as with the NBN, this is not the case.

The NBN is a giant civil works project – there is a lot of digging and cable laying. The marginal cost of a connection depends upon geography and existing infrastructure. But once the NBN is built the cost is sunk (except for upgrades). The marginal cost of extra speed or traffic is close to zero.

With NBN’s layer 2 service, simple average port pricing is possible but not desirable, because the figure would need to be so high as to deter many users – about [\\$75 per month](#). Flat rate pricing is not an economically efficient way of recovering fixed costs, is not conducive to affordable retail prices, and won’t meet policy goals.

Although speeds and traffic do not generate costs, they reflect what customers value. They can be used to recover fixed costs efficiently in a two part tariff with a fixed monthly component and a component that varies with traffic.

Ideally, the traffic fee should be as close to marginal cost as possible. But the lower it is, the higher the fixed monthly fee must be, making it less affordable. Another constraint is that millions of customers on the NBN may remain voice-only fixed network customers, so the fixed fee has to accommodate that.

NBN Co has a two part tariff: the AVC (fixed) fee which varies with speed, and the CVC (traffic) fee based on capacity (\$20 per Mbps per month). My critique of this model:

- NBN Co is making a big bet on customers being willing to pay more for higher speeds over time. Mobile operators do not do that, so why should fixed? Why not give all

customers get the full capability that has been installed at great public expense?

- Pricing for speed at the wholesale level forces that to be done at the retail level too. This means that the current retail pricing models will not change, and neither will the way people use broadband.
- CVC pricing discriminates against small ISPs and deters new entrants. It is a poor proxy (as described by NBN Co in its first plan) for traffic pricing.
- CVC pricing invites ISPs to lower QOS (buy less capacity) to get lower prices.

We have the opportunity to make the NBN a real game-changer by not charging for speed. If NBN Co provides best efforts on all lines (although premiums could be charged for better effort), no retail ISP is going to charge by speed.

(We saw something similar in New Zealand when the regulator said the difference between business and residential broadband pricing could not be reflected in the wholesale unbundled bitstream service – Telecom NZ was the first ISP to abandon the difference at the retail level).

Not charging for speed would catapult Australia to a leading global position on Akamai and Ookla speed rankings. It finesses the ACCC's concern about ISPs promising speeds they cannot guarantee end-to-end. More importantly, higher average actual speeds could totally transform the digital economy. Ubiquitous fast broadband provides the scale for national e-services and unleashes innovation at the edge of the network.

We know that there is limited willingness to pay for faster speeds among consumers. This is perfectly rational, because usually they get no practical benefit. But consumers are willing to pay for usage, and that is how the current retail market is structured.

It is also how other network utilities charge users – the units of traffic may differ but the network economics are the same. Utility pricing works because everybody takes a simple standard service at an affordable price. It promotes adoption, affordability and social inclusion. No one misses out, no one pays more for access, though the affluent may consume more. This is a proven pricing model with other utilities and eminently applicable to broadband.

On the current NBN plan, the future is going to look very much like what we have now. The supply side (building a better, faster network) is important, but we need to pay more attention to the demand side and the pricing that links the two. What can we do to make the NBN more affordable, more useful, more competition-friendly and more exciting?

Some will say that it has taken long enough to get the current prices agreed by the ACCC. But do we want to live with this model for the next 30 years or set world's best practice? We can do it – it isn't that hard!

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