

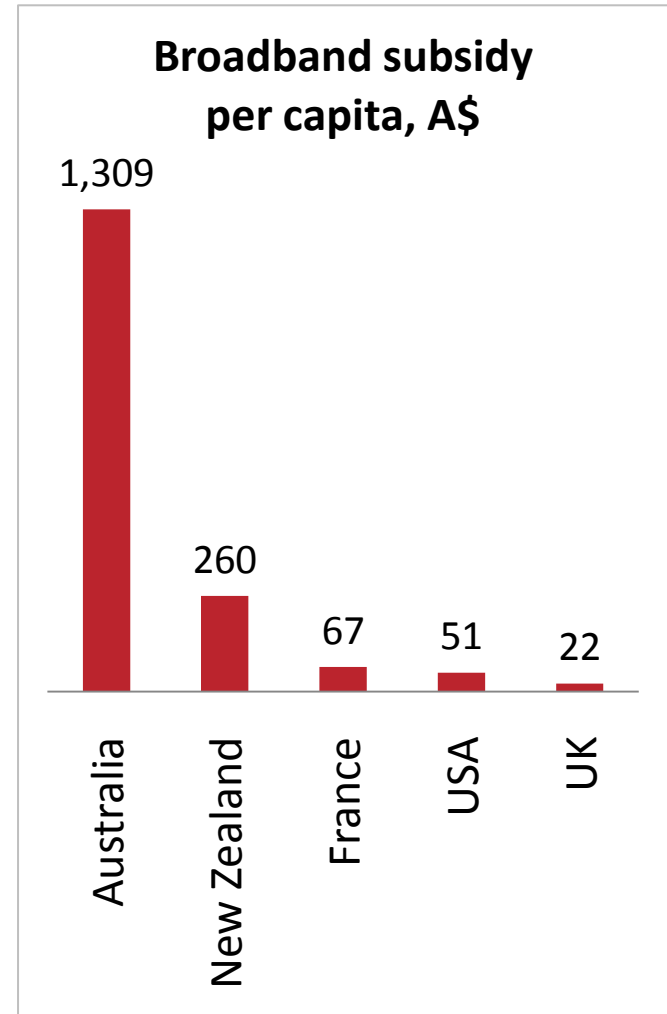
*Canberra, 28 March 2011*

# Are you considering a fibre subsidy? Questions to ask

*Robert Kenny*

## Generally the commercial case for fibre doesn't stack up

- Put another way, consumers won't pay the extra cost
  - “Consumers / Businesses don't perceive FTTH benefit” [FTTH Council]
  - Fibre prices often need to match those for copper
  - Even so, take-up is low: 17.5% of homes passed in Europe
- However, there is a perception that fibre brings externalities
  - Social benefits, economic benefits
- Governments around the world are therefore subsidising fibre
  - Australia is by no means alone ...
  - ... but it is one of the most aggressive



# Fibre is a means not an end – it's all about the applications

## Basic broadband is already amazing

## The applications to justify FTTH need to meet certain tests

*Subsidies for fibre to the home*

Does the application have societal, not purely private benefit?

Is high speed essential for the application?

Does the application depend on high speed at homes, not businesses?

**Any application used to justify subsidising FTTH needs to pass *all* these tests**

## FTTH and TV

- On-demand HDTV is a key application that (for the time being) will depend on fibre to the home. (Though on-demand SD TV is perfectly possible for most standard broadband customers in most markets). However ...
- The demand for interactive TV is often overestimated
  - In the UK, households with PVRs only timeshift 12% of their viewing
  - iPlayer (the BBC's IPTV service) represents just 1.7% of BBC viewing
  - Value of the VOD market is actually *shrinking*
- Mass market use of on-demand HD would create substantial backhaul costs, in addition to the access investment
- What exactly is the societal benefit of on-demand HD TV?
  - How do you benefit from my consumption of *Toy Story 3*?
  - Why should consumers desiring these services not pay for them themselves?

# FTTH and Healthcare

- Very often the healthcare benefits cited for FTTH are actually about wiring up hospitals – generally already connected to business fibre
- There *are* advantages to remote in-home consultations and monitoring. Plenty of studies show this, but ...
  - The studies used basic broadband
  - Healthcare systems have not reengineered themselves to take advantage
- Why will fibre make a big difference to the potential and to the implementation?



## FTTH and Smartgrids








- Smartgrids have massive potential to reduce electricity consumption, with economic and environmental benefits
- FTTH networks *can* be used to enable smartgrids, but are categorically not necessary. Typical per-home bandwidth requirements are 3.2 Kbps
- As a practical example, Italy installed 30m smart meters between 2001-06 using GSM, PSTN and satellite (and not a single fibre connection)
- Wireless solutions have advantages in that they don't require in-home networking to connect the entry point to the meter location



## FTTH and Education

- Unfortunately there's little empirical evidence that broadband is good for education (and some that it's actually negative)
- Even if schools need high-speed, this is not a rationale for fibre to the home (Korea and New Zealand both have targetted programmes for schools)
- Undoubtedly some benefit from remote education, but does this need high speed?
- YouTube EDU has over 65,000 videos and 350 full courses, without the need for fibre
- How many subjects require real-time, HD content?

# The app-stack trap: NBN Co's view of concurrent use as a driver of future speed estimates

	Adv internet	5 Mbps
	Gaming	2 Mbps
	Two SD TV	8 Mbps
	HDTV	9 Mbps
	Online storage	4 Mbps
	Video calling	2 Mbps
	Two smartphones	4 Mbps

34 Mbps from **nine** concurrent applications

Compares  
to

Size of the typical  
Australian household



2.5 people



# Conclusions

- Government interventions to support fibre:
  - Are expensive
  - Typically result in at least partial renationalisation of telecoms
  - Are regressive (deliver greater benefits to the more prosperous)
- This creates a significant burden of proof on those advocating such intervention
- In practice the case for FTTH subsidies is often made poorly:
  - Crediting FTTH for applications that could be delivered over basic broadband
  - Crediting FTTH for applications that don't require home bandwidth
  - Making the case on the basis of applications that don't bring externalities
- Those considering fibre subsidies should ask:
  - Are the purported benefits really dependent on fibre to the home?
  - Is there a cheaper, less interventionist way to get the same results?