

Dear Senators and Committee Members,

The media has made much of today's assertion by Dr Rowan Gilmore that 100 Mbps line speeds are "not necessary and would be throttled down in most instances anyway".

But the real argument for the Committee has nothing to do with speed, nor about what people do on the Web today.

Firstly, fibre optic cable of itself is not constrained by bandwidth, only by the switching technology at telephone exchanges, where relatively inexpensive future upgrades at each single exchange will immediately propagate to thousands of premises. The touted 100 Mbps speeds are based on 1990s switching technologies, and tomorrow's concurrent multiplexing, multi-colour and multi-phase breakthroughs will see these limits soon consigned to history.

Dr Gilmore correctly states that a single HD video stream can travel over a 10 Mbps line if all is functioning well, but faster capacity will prevent jitter during bandwidth bottlenecks for live programs, and permit the complete download of a recorded program in seconds for later viewing.

But again the real argument here is not about speed.

No, the only argument to be made at this time is not how fast a Web user today thinks the line should operate, but merely whether there is a national good to be had by providing fibre infrastructure to premises, and this is an incontrovertible yes.

The most important factor will be penetration of the infrastructure, which must prioritise the geographic areas that the market has marginalised. Only then will the real benefit of the project be realised.

May I close with a single recent case of my wife having to take a sick baby to hospital in the middle of the night leaving me to deal with the rest of our children until mid-morning, with consequences for her sleep, my work starting time and the upsetting of the household routine. The NBN rollout will make possible initial face-to-face medical assessment at any hour by a medical professional in a daylight timezone, which becomes more critical the greater the distance from city facilities. Widespread penetration of video-capable communications infrastructure to regional and remote Australian homes, farms and businesses will create the economies of scale that will see such services become viable, with enormous recurrent cost savings in health budgets and environmental, economic and social benefits from the reduced need to travel.

Thank you all for your deliberations on this matter of great national importance, and I look forward to a visionary program of recommendations from your Committee that will deliver the great economic and social value of this project to your constituents for generations to come.

Yours sincerely,

Francis Young