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Mr Andrew McGowan
Inquiry Secretary
Standing Committee on Infrastructure and Communications
PO Box 6021
Parliament House
Canberra ACT 2600

Email: ic.reps@aph.gov.au

Dear Mr McGowan,

New Inquiry into the National Broadband Network

Thank you for your letter of 9 December 2010. Deakin University welcomes the opportunity to contribute its views to the new inquiry into the National Broadband network established by the House of Representatives' Standing Committee on Infrastructure and Communications.

Deakin University supports the introduction of the NBN which will:

- provide more equitable opportunities for people to enjoy the benefits that flow from participation in higher education, most particularly those who are currently socially or educationally disadvantaged
- allow Deakin to better fulfil its particular commitment to rural and regional communities where connectivity is poor and acts as a disincentive to permanent location in the regions
- enable Deakin to more efficiently and effectively utilise its Warrnambool Campus.

Deakin is a leader in the provision of flexible education. A key component of this provision is the systematic use of the University's online teaching and learning environment, Deakin Studies Online (DSO), as a standard feature of unit delivery for both face-to-face and distance education study. The NBN will enable the following progress across our catchment:

- media rich course material delivery with networked live streaming and quality video and audio
- virtual classrooms catering for not just two-way but multi-channel communications
- outdoor/field classes – increased opportunities to study outdoors or in the field
- interactive video conferencing and seminars – high quality conferences over the network for multi-campus teachings, cross-institutions teaching and collaboration with industry partners and international institutions
- the establishment of collaborative networks with individuals and groups of learners and teachings, within organisations, around Australian and beyond, to share resources and stay connected
- support for collaborative research with educational institution information and data through cloud computing and real-time synchronised offsite data storage

Your letter advises that the Standing Committee on Infrastructure and Communications has been asked to 'examine the capacity of the NBN to contribute to' a number of specific matters. Deakin's views on two of these matters are set out below.

Capacity of the NBN to Achieving Health Outcomes

Deakin University has a health and medical precinct at its Geelong Warrnambool Campus which is currently being expanded through the development of a Regional Community Health Hub (REACH). The Hub will respond to critical health workforce shortages in rural and regional Australia by:

- allowing the introduction of new teaching programs in exercise and sports science, clinical optometry and potentially, clinical pharmacy
- enabling a community based program in sport for offer to Indigenous students
- offering an innovative e-learning service, Deakin Online, linking health services, practitioners and educational institutions for the clinical training of health professionals.

The NBN will assist Deakin to deliver services through REACH by providing adequate network capability into regional and rural hospitals and other locations used in teaching health professionals. Faster networks will also enable rural hospitals and practitioners to access capital city based facilities and advice from health professionals. The current situation inhibits this level of connectivity and a great deal of time and money is spent on sub optimal connections and transmission times.

Improving the Educational Resources and Training Available to Teachers and Students

Information and communication technology has become essential to the delivery of higher education. The distinction between students who have a wholly face-to-face experience and those who use a distance education mode is becoming blurred by multimedia delivery of lectures, synchronous online tutorials and the growing use of mobile and online technologies.

Students expect a high degree of flexibility in their educational experience to enable them to work while studying. Many students are unable to travel long distances to campus because of competing demands on their time and finances. Online flexible education provides the means for overcoming these challenges and for providing access to higher education for students in rural and remote locations and for those who live distant from their university and course of choice.

With present bandwidths in the telecommunications network, it is possible to deliver education content to students in metropolitan areas by restricting the resolution of multimedia content. For students in regional and remote locations, the lack of bandwidth is a major constraint; only rudimentary multimedia content can be accommodated and synchronous communication is limited. This is an equity issue and there is now a material difference between those who study from metropolitan locations and those who do not.

A final comment on the rollout of NBN

Deakin comprises three regional campuses (two in Geelong and one in Warrnambool) and one metropolitan campus. Currently Deakin is well served by a VERNET fibre optic-based network providing 1Gbps Layer 1 connectivity between its two Geelong campuses and its Melbourne campus.

The capacity between the Warrnambool Campus and its other Campuses is *only 10%* of the capacity between the Geelong and Melbourne Campuses. This adversely impacts online teaching, research and administrative functions, such as video conferencing, and it deters staff and other professionals from living in a significant region in Victoria. Our VERNET fibre does not currently extend to Warrnambool and, under the current proposal the NBN will stop short of Warrnambool for some time. Thus a key part of the State will not be served well by the advances you are making with NBN. In my view this is a missed opportunity for regional Victoria.

It would be my observation that a better return on investment might be achieved for the nation and the State if the NBN rollout focus first on areas where no cable or inferior cable exists rather than of replacing good bandwidth and speed in metropolitan areas, such as Geelong, at the expense of regions such as western Victoria around Warrnambool.

Yours sincerely,

Professor Jane den Hollander
Vice-Chancellor