



**BAULDERSTONE  
HORNIBROOK**

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04 July 2005

**Senator John Cherry**

Australian Senate  
Environment, Communications, Information Technology and the Arts  
Parliament House  
CANBERRA ACT 2600

**Dear Senator**

**Re: Inquiry into Australia's telecommunications regulatory regime**

I refer to your letter of 21 June 2005 expressing the Committee's disappointment at Boulderstone Hornibrook's none attend at the public hearing on 20 June 2005.

We had been under the belief that the Terms of Reference of the hearing were of a regulatory nature therefore we considered it inappropriate and premature for us to attend.

It has now become clear that Boulderstone may be able to assist the Committee in its findings and therefore we provide a précis of the optic fibre '*Future-proofing*' project. We are willing to attend a future hearing on these matters should the need arise.

Referred for your information.

Yours sincerely  
**Boulderstone Hornibrook Pty Ltd.**

  
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Michael Still  
Managing Director  
Capital Solutions

Encl.

The 'Future-proofing' of Australia - project '**Homestead**' - providing Fibre-to-the-Home (FTTH).

Baulderstone Hornibrook's strategy is to deliver optic fibre technology to more than seventy percent (70%) of the homes in Australia providing high-speed telecoms to regional and rural areas<sup>1</sup> through the construction of an optic fibre network.

The concept is subject to a full feasibility study, which must be undertaken in conjunction with the Federal Government and Telstra.

### **The Issues:**

Australia's regional and rural community network is largely reliant on a 50+ year old copper network. The major problems associated with the network are: -

- The copper network due to its age is failing to deliver the communications needs of the people and businesses in these areas;
- The age of the network results in Telstra spending many hundreds of millions of dollars annually in maintenance and services;
- There is a growing gap between the services on offer to metropolitan customers compared to the services provided to regional and rural customers; and
- The copper network is limited in capacity and while ADSL and ADSL2 provides some increase in information transfer speeds it does so over an antiquated network with significant speed reductions as customers reside further from a Telstra Exchange.

### **Our Concept:**

Baulderstone has researched the latest developments in optic fibre technologies, and with expert advice from Ericsson, a global communications company, we have developed a long-term solution for information delivery to non-metropolitan areas that retains high speeds irrespective of customer demand levels; unlike other technologies where down-load speed is sacrificed when customer demand levels rise.

Homestead will deliver optic fibre, at a cost of approximately \$7.0Bn<sup>2</sup>, directly to homes in regional and rural Australia (including some remote locations with the exception of approximately 6,600 of the most remote homesteads). An optic fibre network will allow future hardware technologies to deliver 'true' broadband where down-load and up-load speeds are comparable.

Construction will occur over five years with eighty percent being constructed within the first three years. To ensure local communities benefit from the project, local power companies and local (and Shire) Councils will be encouraged to participate in the fibre roll-out construction phase.

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<sup>1</sup> Includes urban areas e.g. Penrith, Gosford, Gold Coast – all centres outside the former Telstra STD capital city call zones

<sup>2</sup> Final cost of construction is subject to a full feasibility study

The benefits of this *Fibre-to-the-Homestead* approach include: -

- Replacing the old and costly copper network (Customer Access Network - CAN; also known as the 'last-mile');
- Providing regional and rural Australia with communication services to the same, or better, standards as metropolitan areas (Australia currently lags behind most western nations);
- Providing regional and rural Australia with reliable telephony services, internet in 'real time', extensive free-to-air television, Pay TV and many other services and products (Games-on-Demand, Music-on-Demand etc.) which are currently only available in major centres;
- Maintain the Community Service Obligation (CSO) through our construction methodologies. The fibre can be split 32 times; our intention is to split it 16 times thereby allowing for greater access and future connectivity.

A requirement of Homestead is the removal of the entire copper infrastructure from Telstra's Customer Access Network (CAN) - the last mile - and replace it with optic fibre utilising, where possible, existing sub-ducts or installing the fibre on power lines - essentially matching existing construction methods ('like-for-like').

### **Team approach:**

Baulderstone has entered into an alliance with Ericsson for the supply of technical expertise and materials associated with the roll-out. Although Ericsson is one of the largest wireless provision companies in the world, the company has chosen optic fibre as the only technology platform that can deliver 'true' broadband and therefore endorses Homestead without contradiction.

Due to the complexities of the national telecommunications networks Telstra is seen as the partner of choice because of its experience and capabilities in the industry. Further, Telstra is the only carrier of sufficient size to justify such a project. Telstra is the only telecoms carrier to own a 'core' fibre network that connects all capital cities and regional centres.

### **Funding:**

Homestead will be delivered under a financing method similar to a 'BOOT' or PPP scheme and would not appear on Telstra's balance sheet thereby assisting the Federal Government in selling the remaining shares in Telstra.

With the upgraded CAN to optic fibre, we understand there to be sufficient savings in Telstra's OPEX (maintenance budget) to repay the construction borrowing. Further, additional revenues will emanate from the regional and rural sector as the world acknowledged 'triple play' is introduced. Conservative revenue increases of \$1.8Bn are expected from regional and rural customers - without any consideration to additional revenues derived from local businesses.

### **Telstra:**



Whilst there has been some 'push back' from within certain sections in Telstra (Telstra Wholesale and Telstra Country Wide) the majority of divisions are aware of the project and have positively received the concept.

The former CEO, Mr Ziggy Switkowski, was reluctant to acknowledge Homestead and declared that "no additional revenues could be achieved from an optic fibre network". This commentary is contrary to telecoms around the world.

One could question the rationale for Telstra's negative position in relation to Homestead as Telstra's internal policies of the 1980's delivered an optic fibre 'core' and 'Inter-exchange' network. It was recognised that optic fibre was required for Telstra's trunk networks yet is reticent to replace the copper CAN with optic fibre. Hypocritical perhaps, without vision and proactive substance definitely!

**Risk:**

Boulderstone Hornibrook has invested considerable resources to this project and is protective of the Intellectual Property. Should the Senate require additional information it would be our intention to accommodate this request, however, with respect, the material must be kept commercial-in-confidence.

**Regulatory and/or Legislative Change:**

Whilst final deliberations on necessary regulatory and/or legislative changes to accommodate Homestead are incomplete, it is clear that policy is required to standardise construction protocols when delivering optic fibre networks. Currently small to medium telecoms infrastructure providers are using various methods of construction and an array of materials resulting in inconsistent network quality levels which may have a detrimental effect on future-proofing regional areas.

**Homestead summary:*****Project features***

- 50+ year old copper network replaced with the latest technology;
- Australia is 'Future-proofed'; and becomes a world leader in communications;
- Significant fault reduction resulting in OPEX savings and vastly improved services to Customers;
- Easily reinstalled infrastructure if affected by natural disasters (bush fires, floods etc);
- Rural and regional communities able to access services only enjoyed by city residents (except where satellite or wireless is used which is expensive and limited in capacity)

***Project advantages***

- Optic fibre networks provide almost limitless potential compared to antiquated, redundant and restrictive copper networks;
- Minimises the operations and maintenance costs of the networks.
- Off balance sheet investment in a superior network for Telstra and the Federal Government;
- Provides the only 'true' broadband capability

***Project benefits***

- Provides options for the ownership of the infrastructure;
- Increases the value of Telstra;
- Allows Telstra to be 'market ready'
  - Reduces the rural and remote impediments for the sale of Telstra;
- Saleable state-of-the-art network that can be sold post T3 for the equivalent (or more) of the construction costs;
- Regional and rural Australia connected to the world's super internet highway;
- Stimulates local economies through local company involvement during construction;
- Sustainable GDP increases;
- Australia would become a 'smart' country
  - Australia would become a world leader in FTTH;
- Promulgation of businesses to regional centres;
- 'Real time' interaction delivered to schools and hospitals
  - Better Learning! Better Working! Better Living!