

**Victorian Government Submission to the
Commonwealth Government's
*Backhaul Blackspots Initiative Consultation Paper***

Introduction

The Victorian Government welcomes the Commonwealth's announcement of 7 April providing up to \$250 million in funding for competitive fibre optic cable (FOC) backhaul – Backhaul Blackspots Initiative (BBI).

The Commonwealth's BBI has common policy objectives with the Victorian Government initiative – VicFibre*LINKS* (VFL) – particularly in regards to the primary objective of achieving better service outcomes for regional broadband users in significant and underserved regional markets.

There is great potential for the VFL and BBI to deliver extended benefits by utilising the extensive planning and program development already undertaken for the VFL and leveraging it and other the Victorian Government commitments to regional broadband development.

The Victorian Government invites the Commonwealth to fund the \$57.4 million VFL Extensions Program, consistent with the Infrastructure Australia VFL bid in November 2008.

Background

The Victorian Government has long recognised the importance of the competitive supply of fibre optic backhaul in facilitating access to high end broadband users and the downstream competitive supply of a broad range of broadband telecommunications services in the retail market.

While the Commonwealth's \$250 million BBI has been announced in the context of the \$43 billion National Broadband Network (NBN), there are a number of near term economic and social objectives that can be achieved through immediate investment in backhaul infrastructure.

Establishing competitive fibre optic cable (FOC) based backhaul into significant regional markets (where currently there is only the incumbent provider's backhaul services), within an appropriate commercial framework, will improve the business case for alternate service providers to rollout new and or improved services to end users.

More competitively priced backhaul will enable these alternate providers to invest in a range of broadband access platforms such as ADSL2, ADSL2+, BDSL, direct fibre connections, mobile broadband (3G HSDPA), broadband wireless (802.16 and the like), and other services.

More competitive backhaul services will provide flow on benefits such as lower costs, increase diversity and innovation in telecommunications offerings and produce associated improvements to productivity, output and employment in the target regions.

In a practical sense, this type of intervention would mean that a market such as urban Mildura, Swan Hill and Echuca would have the same dynamic services outcome as an urban suburb of Melbourne that has the same level of residential density, socio-economic characteristics, and range and depth of commercial, industrial and government activity (as it would have similar commercial features and potential for alternate service providers).

For high bandwidth users in particular, the impacts of the provision of competitive FOC backhaul would be profound. These users take special purpose services and not the generally available consumer services (which, where available, tend to be universally priced by the incumbent) and as such these users are subject to an asymmetric bargain where the incumbent is the only provider of backhaul services (as alternate providers are simply not able to supply because of backhaul constraints).

Market dynamics

Observed backhaul transmission pricing in regional markets where there is a single provider is very high, particularly for high bandwidth services. Theoretically, this should encourage entry into the market by alternate infrastructure providers. However, the high cost of initial investment, lengthy deployment times and the potential for competitive response by the incumbent discourages such investment.

Typically, revenue assumptions for any competitive fibre backhaul investment into a distant regional market would reflect the following price and volume considerations:

- Assumed prices would be significantly lower than observed prices based on the incumbent's likely response to the threat of entry. That is, the incumbent could lower prices to maintain market share and/or discourage competing investment (with prices reverting once the threat has passed).
- The target customer pool in these markets could be captured as a consequence of the incumbent's response (at least for a significant period) by the time competitive services become available.

Accordingly, in many regional markets, competitive infrastructure investment, without subsidy or some other driver for investment (such as rail safety or energy network management) will not eventuate.

In addition, without coordination or strategic intervention, investments that have alternative drivers may not deliver the competitive outcomes for enhanced telecommunications services. For example, in the energy market,

the owner/operator of the new fibre may not have the skills, systems or incentives to commercialise the FOC for telecommunications purposes and/or the energy regulator's policy parameters may inadvertently act to constrain the investment to energy related activities.

The outcome government should aspire to

Any government intervention in fibre optic backhaul services should aim to deliver a comparable range and price of backhaul services to those that exists in 'benchmark' regional centres where competition in backhaul is deep. This is an outcome that cannot be delivered though the application of competition law and access pricing principles such as TSLRIC+ to the incumbents declared backhaul transmission network (where, for example, prices would include a distance tariff).

In Victoria, we regard these benchmark centres as localities where there are multiple fibre infrastructures and multiple sellers of fibre backhaul services, such as exists in Bendigo, Geelong, Ballarat, and Shepparton.

Competitive fibre backhaul should also be delivered in a way that improves the capacity for government at all levels to improve the delivery of its services. For example, high-end government broadband users such as universities, TAFEs, hospitals and emergency services, should be provided with facilitated access to any new fibre deployments (according to their needs) to ensure that the spill-over benefits can be immediately realised from new FOC investment.

In that context, it is important to note the deployment of new FOC potentially enables many interests to be served:

- A single FOC typically consists of many pairs of fibre (eg. 48, 96 etc.) and individual fibre pairs on a single FOC deployment can be allocated to multiple owners under well established legal arrangements, such as the industry practice of granting the Indefeasible Rights of Use (IRUs) over fibre pairs in exchange for a contribution to the overall investment.
- Within a single fibre pair, many users' needs for high capacity broadband services can be provided for given the technical capacity of technologies such as dense wave division multiplexing (DWDM) to enable a single pair of fibre to act like multiple pairs.

It is also important that a government intervention to address a market structure issue does not merely supplant a monopoly problem with a duopoly problem. While the technical features of an FOC rollout should mean this can be avoided, the government intervention needs to be implemented within a commercial framework that ensures that the behaviour of the market with the new fibre backhaul entrant replicates the behaviours that would occur in truly competitive infrastructure market.

The VFL had contemplated these commercial dynamics, and a policy approach to deal with this is outlined in paragraph 11 of the Strategic Procurement Strategy (SPS provided **in confidence** at **Attachment A**).

Broadly, it involved monitoring the performance of the market (pre and post intervention) against the benchmark markets. In the event that new FOC initiative did not provide evidence that it was delivering equivalent market conditions to those that exist in the benchmark competitive markets, the State would introduce a third carrier over a share of the new FOC using reserved IRUs (as the existence of numerous fibre pairs provides the opportunity for further backhaul services competition via the allocation of IRUs to new entrants).

In summary, this technical feature of FOC therefore enables both a wide range of users' needs to be met as well having the potential to address competitive market structure issues in the long term (provided that the FOC is developed in an appropriate commercial framework).

Principles for allocating and administering a government subsidy

It is important that any government intervention is based on:

- A rational assessment of the investment, including the application of an appropriate technical methodology to the business case development (such as cost and financial modelling, cost benefit analysis and/or economic impact assessment – in line with the Infrastructure Australia policy context).
- The adoption of a rigorous project governance and management framework once a project is initiated.
- Clearly defined and measurable project outputs and outcomes with a robust and defensible monitoring and evaluation regime. Contingency plans need to be developed and in place in the event of underperformance against any goals for the intervention.
- Compliance with other related government policies such as competitive neutrality and procurement policy, and State and national strategies for the delivery of high capacity broadband to sectors of government.
- A considered view of the long run market structure that the project would facilitate, and a considered and consistent approach to the facilitation of complementary private investment either in the project or in areas ancillary to the project (such as in access network technology and services, or for the purposes of network redundancy).

VicFibreLINKS

In August 2008, the Victorian Government announced \$20 million for VicFibreLINKS (VFL) to deploy competitive open access fibre backhaul infrastructure in regional Victoria with two priority routes (Bendigo to Mildura and Geelong to Warrnambool) already in an advanced stage of

planning. Eight other routes have been identified as having significant economic benefits from the introduction of competitive fibre backhaul, however the State funding is not sufficient to deliver these additional routes.

These routes were identified as only having a single fibre backhaul infrastructure provider and are consequently characterised with a lack of competitive supply of services such as HSDPA and ADSL2+. Research further confirmed that these routes have significant unmet demand, particularly for high capacity broadband services. These routes would service economically significant areas with projected population growth and are important service centres, including for government.

The primary objective of VFL is to promote regional economic development. Economic modelling estimates significant economic benefits (in the form of a boost to GSP) from the introduction of competitive backhaul into regional markets where there is currently a single backhaul service provider.

A secondary objective is to address regional 'outer government' needs for high capacity telecommunications services. For this reason, the VFL program is being jointly managed with the complementary *TAFE Broadband Program* also announced in August 2008.

The \$20 million *TAFE Broadband Program* will provide high capacity broadband connectivity (1 gigabit per second FOC connection) to the head office of 14 TAFE institutes across Victoria. In addition, the *TAFE Broadband Program* intends to provide for greater connectivity to the within institute campus network. Ideally, this would be on a fibre platform (subject to the scale of operations on the campus), but the limited TAFE funding will not extend to a fibre optic connection to all TAFE locations.

In that context, the State will seek to support greater TAFE connectivity through any BBI funds, as well as through a bid for additional funding from the Commonwealth's recent commitment of \$81.9 million over 3 years to fund the Vocational Education Broadband Network (VEN - proposed at the 2020 Summit).

Planning for the implementation of VFL

The Victorian Government has undertaken significant policy and project development activities for the implementation of VFL and is well advanced for its implementation.

This work includes:

- Identification of priority backhaul routes based on unmet commercial and public sector demand
- Detailed cost modelling of FOC deployment options
- Modelling of regional economic impacts

- Identification and consultation with key public sector fibre broadband users (such as regional health alliances, emergency services, higher education and research facilities) that are interested in obtaining access to FOC and/or obtaining access to FOC-based services along proposed routes
- Market sounding of existing backhaul providers and potential users of new FOC in the telecommunications market
- Development of a Strategic Procurement Strategy (provided **in confidence** at **Attachment A**)
- Development of a commercial framework to ensure long term positive wholesale backhaul market outcomes from the program and mechanisms to ensure that the prices, quality and range of backhaul services being offered in the markets served by the new fibre backhaul align with those typically offered in competitive regional benchmark markets
- Development of substantial project documentation including a draft Request for Proposal (RFP), and associated agreements (for an early May 2009 release of the RFP)

The SPP provides indicative information on the design and operational parameters of the network, and the operational and ownership arrangements which were developed in light of the original \$4.7 billion fibre to the node NBN proposal.

Transaction structure

The uncertainty created by the Commonwealth's recent announcements on NBN including the BBI suggest that the Victorian Government's preferred transaction structure involving a partnership with a wholesale telecommunications carrier (who would provision the fibre, invest significantly in the fibre, pass IRUs back to Victorian Government over a share the fibre and act vigorously in the market to commercialise the outcomes mentioned above) is now not likely to occur.

The Victorian Government's approach is now likely to use VicTrack to deploy the new FOC, act as a wholesale 'carrier of carriers' provider to the telecommunications market (providing IRUs to other commercial carriers to utilise), and hold IRUs for State use (see paragraphs 32-34 in the SPS).

VicTrack

VicTrack, a government business enterprise, is a State owned licensed telecommunications carrier. It holds considerable telecommunications assets, including an extensive metropolitan FOC footprint along the urban rail corridors and a regional FOC footprint that extends along the regional fast rail network to Geelong, Ballarat, Bendigo and Traralgon.

VicTrack also has extensive rights of way that can facilitate telecommunication infrastructure rollouts, and as a carrier it has powers under the

Commonwealth's Telecommunications Act that support telecommunication infrastructure deployment.

It has expertise in building and operating FOC broadband networks, primarily to support public transport applications, but also with a mandate to utilise them for other public purposes, such as in facilitating the Victorian Education and Research Network (VERNet) and in delivering high bandwidth services to inner budget agencies.

Impact of the BBI on Implementation of VFL

With the announcement of the BBI, the Victorian Government is revising elements of the implementation plan which we hope to do in close consultation with the Commonwealth Government. However, key policy elements of the SPP are expected to remain unchanged.

The Victorian Government is ready to discuss adaptation of these arrangements to meet Commonwealth Government ownership and access requirements for the NBN. For example, the Victorian Government is open to various access and ownership arrangements on the new BBI fibre routes, and would consider facilitated access to VicTrack's existing fibre and other telecommunications assets as part of any 'package'.

The Government expects to commence implementation of the planned VFL rollout on the initial routes by mid 2009. Based on this timeline, the two new fibre routes, Bendigo to Mildura and Geelong to Warrnambool, should be complete by mid 2011. Subject to effective collaboration between Victoria and the Commonwealth, these builds could be the first deployment of BBI infrastructure in Victoria.

VFL extensions

In November 2008, the Victorian Government made a submission to Infrastructure Australia for funding of \$57.4 million to extend the VFL program to cover the additional eight routes (see **Attachment B**). A map is also provided at **Attachment C**.

- South to West Gippsland
- Echuca to Wodonga
- Bellarine Peninsula
- Mornington Peninsula
- Warrnambool-Portland-Hamilton loop
- Seymour loop
- Benalla loop
- Wangaratta loop

With the Commonwealth now making \$250 million exclusively available to fund the development of competitive fibre backhaul in underserved markets, the Victorian Government invites the Commonwealth to fund the \$57.4 million VFL Extensions Program, consistent with the Infrastructure Australia VFL bid in November 2008.

These routes have been subject to business case development and economic impacts modelling (both direct and inferred). Consistent with the proposal to Infrastructure Australia, the Victorian Government believes the best outcome from the BBI can be achieved by utilising the project delivery capacity and more importantly, the policy framework, developed for the VFL program. This will enable delivery of the Commonwealth's BBI policy objectives, demonstrate an early rollout and provide for the additional public sector outcomes sought by the Victorian Government.

Conclusion

The Victorian Government supports the Commonwealth's intention to invest in competitive backhaul infrastructure. It strongly aligns with Victorian Government policy for regional telecommunications and economic development. The Victorian Government believes that the best outcomes for the BBI can be achieved by leveraging the VFL funding and comprehensive program design.

Should the Commonwealth elect to pursue any of the BBI independently from the VFL program, the Victorian Government would strongly recommend that the Commonwealth look to deliver the public sector outcomes sought by the VFL. For example, the Commonwealth may consider retaining reserve fibres, indefeasible rights of use, or other means of access for public purpose use. Given that public funds will be used to pay for the new fibre backhaul, public purpose access and use of the new fibre should not require additional public expenditure.