

Broadband Connect Discussion

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INTRODUCTION

Westvic Broadband (Westvic) is a wireless service provider registered under the HiBIS scheme and operating in the Western District of Victoria. We are based in the coastal town of Warrnambool and are very much in touch with the broadband service needs of the area. As such we believe we are well qualified to offer an opinion on the structure of the two schemes as it relates to the Western District area of Victoria and the wireless service provision by Westvic Broadband. In reply to the Department of Communications Technology and the Arts call for submission on the *Broadband Connect* program, Westvic Broadband Pty Ltd would like to offer the following comments on the provided questions.

Q1 How can the design and delivery of Broadband Connect be optimized to achieve long term sustainable quality broadband solutions for regional, rural and remote Australians?

Broadband Connect should ensure the availability of quality broadband services to as many regional, rural and remote areas as possible. Companies should be made to demonstrate that their proposed area of coverage is economically viable and is the best overall solution for that geographical area.

FOR EXAMPLE

Telstra should not be funded to enable exchanges with ADSL unless they are able to guarantee minimum customer connection levels.

Wireless providers must indicate a geographical area they are technically able to provide a service and also guarantee minimum customer connection levels. In the case of two wireless providers applying to service the same area, DCITA should make a determination as to the viability of competition or select one of the companies for funding on the basis of what is the best overall solution for that area.

By implementing the above, this would avoid the situation where a provider wishing to deployment services to a larger geographical area is discouraged from doing so by “cherry picking” by other providers of smaller areas with higher population densities to the detriment of the surrounding population.

Q2 What means can/should be used to encourage further capital investment in infrastructure that will support competitive networks and services under Broadband Connect and beyond?

Westvic supports the provision of economically sustainable delivery of quality broadband services to rural areas and depends very much on achieving a high quality and upgradeable network ready for future demands.

To achieve this goal it is imperative that Westvic is able to implement a core backbone network that is both upwardly scalable, carrier grade, capable of supporting future services and self managed.

The challenge is that *HiBIS* and now *Broadband Connect* are more focused towards the provision of a “last mile” service to the customer. Westvic to achieve a quality service to customers must not only provide a quality “last mile” solution but also install quality infrastructure to support the backhaul of these services. *Broadband Connect* should recognize the differences between the technologies and provide funding that reflects the varying costs of these technologies.

This could be achieved by funding payments on the technology used, the cost of backhaul and the geographical location that is being serviced.

FOR EXAMPLE

Telstra can enable ADSL at telephone exchanges by fitting DSLAM equipment. As Telstra has fibre optic cable to all exchanges of any size, the backhaul is already in place and the last mile is by existing copper cabling. The only variable is the number of customers that will be connected to the exchange.

Satellite service providers have a defined backhaul and customer premises cost. The only variable is the cost of installation of the customer premises equipment.

As a wireless provider Westvic could need to install a new tower then provide backhaul to the main backbone. Last mile equipment would then be installed on the new tower and customer premises equipment installed at the service locations. The variables for a wireless service are the cost of backhaul, the cost of installation and the number of customer connections.

Q3 How can Broadband Connect funding be structured to provide the best incentives for investment?

Broadband Connect could look at a funding option which was outside the normal payment schedules. This could be for infrastructure that was not directly related to the last mile delivery of the service. If a provider had a rural geographical area that was economically viable once backhaul was available, extra funding could be made on a case-by-case basis for the backhaul infrastructure to that area.

Q4 Is terrestrial or satellite the most appropriate means of delivering broadband in rural, regional and remote areas?

From the customer's point of view they do not care which technology is used to get them a quality broadband service. From Westvic's perspective both terrestrial and satellite have merits as a technology to deliver broadband to rural, regional and remote areas. Generally it seems that a terrestrial service is cheaper and has better performance than satellite, however in areas where there is no planned terrestrial or available terrestrial service, satellite is obviously the best option. The problem that can occur is that satellite connections can be relatively quickly deployed which can impact on the viability of providers to investing in infrastructure to certain geographical areas due to the limited population. Westvic believes the satellite service providers should have a funding structure that encourages them to concentrate on areas that are unlikely to receive terrestrial services. This could involve a higher or bonus payment for such areas.

Q5 Can satellite be delivered as competitively as terrestrial services?

While Westvic is not privy to the costing structures associated with the delivery of satellite services, we do not believe current satellite technology is a viable long term competitive solution. Because of ever increasing expectations of customers and rapid advancement in new technologies, we believe satellite should be used as a last resort rather than a first choice solution for delivery.

Q6 Should particular providers be required to commit formally to service the areas they identify in registration applications?

Westvic believes providers should commit to geographical coverage in particular areas, however conditions must apply for this to work. A service provider should make a proposal to DCITA of geographical coverage, including a minimum customer connection commitment as well as a deployment time frame for the geographical area. DCITA should then determine the realistic chances of the provider achieving an economically viable long term service and award funding on that basis. This can take into account other provider's proposals for the area. DCITA should make available to inquiring providers general information on known proposals from other providers in particular areas so the facts are known before proceeding.

EXAMPLE

Westvic has cancelled, or at least delayed, plans to cover several large geographical areas. As we approached deployment in these areas another HiBIS provider "cherry-picked" the small towns which halted Westvic's plans. Westvic will need to re-evaluate coverage of these geographical areas to determine long term viability. Initial long term viability in these areas included these small towns

and as a result of this “cherry-picking” mentality, has probably denied a much larger area surrounding these towns a terrestrial broadband service.

Q7 Should annual renewal of funding agreements specify timeframes for commencement of services of greatest need?

Time frames for all funded areas should be in place up to 12-months in advance and providers should adhere to these timeframes unless there is a very good reason for not doing so. If areas of greatest need are defined as those where providers are unable to economically support services to these potential broadband users, it would seem beyond the terrestrial provider’s responsibility to do so. Westvic believes that any potential broadband user regardless of their location or access to ISDN, if unable to receive a service from a terrestrial provider claiming the customer as in their coverage area, should be eligible as a high cost payment to satellite service providers. In this way the incentive is there for satellite providers to “fill the gaps” that terrestrial providers leave due to less than total coverage because of technical limitations.

EXAMPLE

A potential broadband user in Warrnambool is unable to get an ADSL service as they are on a pair gain telephone service. They are also unable to receive a service from Westvic Broadband as their location is behind a 3-storey block of flats deigning satisfactory signal strength to their location. They have applied for both ADSL and wireless services but have been told these services are not available to them. This customer should automatically become a higher payment customer to satellite providers.

Q8 Should a system of prioritized funding for services connected in areas of greatest need (beyond what has been provided under HiBIS two-tiered incentive structure) be introduced?

Locations where terrestrial broadband providers are unable to provide an economically sustainable service should be designated as outside the two-tiered incentive structure. A higher payment for these eligible locations would entice satellite providers to target these areas. These locations must not be in an area where a terrestrial provider has DCITA approved planned coverage but could be within existing areas covered by terrestrial providers that are unable to provide a service due to technical limitations.

Q9 What can be done further to overcome barriers to capital investment in sustainable technologies in less commercially viable regional areas?

As a wireless provider, Westvic may have a large investment in infrastructure to provide coverage to an area. The cost of infrastructure can be the inhibiting factor. This may involve the erection of towers and the cost of microwave

equipment to link sites etc. that are not directly related to the cost of the last-mile to the customer. The DCITA should have a means of considering seed funding for this type of infrastructure. This could be done on a case-by-case basis so the DCITA could make a determination as to the long term viability and benefits of providing coverage to an area. This type of seed funding would also provide further incentive for competition in some areas by having the effect of reducing the number of connections required to provide the service. This would then possibly allow for several providers to provide economically sustainable services to some of the same areas.

Q10 How can the high cost of some technologies be reconciled with increased customer expectations for higher speeds and usage allowances especially in more remote areas?

Westvic as a regional wireless service provider is offering a broadband service to hundreds and potentially thousands of rural Australians that could otherwise be limited to dial-up Internet. Many of these people have low quality phone lines and are unable to utilize the Internet other than in a very basic form. The suggestion by some providers that a minimum service should be 10Mbps or more is ludicrous and obviously aimed at self interest by cutting out providers not offering these high end services. As technology changes so will capacities and economics in providing services. Until dial-up internet is essentially obsolete and no longer available a 256/64 or 512/128 service is so superior to existing dial-up that the rural customer is very happy with these levels of broadband services.

Q11 Should it be mandatory for program participants under Broadband Connect to provide additional information as listed below as a condition of registration?

- **Intended future services (with approximate dates of commencement of supply;**

Westvic believes that terrestrial providers should have a roll-out strategy in place and make the details of this known to the DCITA. In the case of ADSL this is very easy as the costs and logistics of upgrading a telephone exchange are constant and predictable. In the case of a wireless provider there may be many more variable factors involved. There could be towers, tower site acquisition, leases, building permits, etc. These factors can cause some variation in schedules so consideration should be allowed for this.

- **The viable geographical reach of broadband services from central transmission points for service delivery:**

It is very important that the DCITA knows the expected coverage of a provider's service. The DCITA should evaluate all providers proposed coverage plans to determine if funding is made available for this area. This, when properly evaluated will ensure that a provider does not "cherry-pick" a small town to the detriment of an entire area.

- **Technical barriers limiting the application of providers' technology in regional communities;**

The DCITA should know any technological or technical limitations of providers' networks. This would be a consideration in determining the viability and likely long term success of a provider's proposal to deliver a service to a particular geographical area.

- **The capacity of providers' technology to support varying types of broadband traffic and use;**

Providers' capacity to deliver varying types of broadband traffic such as VoIP, business grade VoIP (QoS), video streaming etc. should be known to the DCITA. The technical staff's capacity to provide this service should also be made clear. This could be a factor in deciding funding available to competing companies in a particular geographical area.

- **The range of service speeds providers' technology would be able to support;**

In the belief that providers should need to put a case forward for funding to particular geographical areas, network speed capability should be made available to the DCITA for evaluation purposes.

- **The capacity of providers' technology to provide services now and to accommodate new developments such as increased speed, usage and applications in the future;**

A provider's ability to deliver services and levels of service levels to customers should be quantified and made available to the DCITA. Consideration to this information should be given before funding is approved for particular geographical area.

- **The particular relevance of the technology to other communication services (for example, capacity to be used also for supporting mobile telephony services);**

If a service provider has a strategy in mind to provide mobile telephony services this should be made available to the DCITA. This is however outside the objective to provide a broadband service to regional and rural areas that are unable to get fast affordable broadband. Westvic believes this is not particularly relevant to Broadband Connect.

- **A summary of the broad nature of the technology they employ; and**

Providers should supply DCITA with a summary of the broad nature of technology employed as well as an overall strategy for the life of Broadband Connect.

- **Anticipated timing and target areas for their technology deployment in regional Australia.**

Providers' should provide DCITA with an overall plan of proposed targeted areas and the expected roll-out schedules to those areas. DCITA could then determine the best use of funding for coverage. For example if the DCITA is aware there were three providers planning to deploy their networks to an area with only 100 potential broadband customers, they could make ensure a situation didn't occur where providers unknowingly rolled-out uneconomically sustainable infrastructure.

Q12 On what basis would you argue that certain specific technologies will have the most impact on the delivery of regional broadband services over the next three to five years?

Westvic believes that wireless technology will play an important role in the delivery of broadband services to regional Australia. As has been seen over the HiBIS scheme, the number of regional wireless customers has increased dramatically. With the ability to cost-effectively and rapidly deploy wireless infrastructure, this technology will undoubtedly continue to reach regional areas that other technologies economically cannot. With the emerging WiMAX technology the promise of much greater bandwidth, functionality such as mobile voice and video, and true non-line-of sight operation will revolutionize the delivery of services in regional Australia.

Q13 How would you compare the effectiveness of these technologies to others in the market place?

The effectiveness of current wireless technologies employed by Westvic is comparable or better than ADSL in most areas. The great advantage of wireless technology is the range from the base station which can be up to 10 times that of ADSL. Emerging technologies will extend range, have much higher bandwidth, provide better coverage and increase functionality.

Q14 To what extent will broadband technologies be able to augment capacity to meet rapidly expanding consumer expectations for higher bandwidth and more advanced application?

Westvic is planning a major network upgrade to allow for the expansion of services and capacity due to the Broadband Connect scheme. The real challenge for Westvic is the unavailability of wholesale competition in our regional area. Long term economically viable backhaul to major Melbourne data

centre is vital for continuing success. Current arrangements will be augmented by the installation of a scalable high capacity backbone link by Westvic. Other companies' with similar regional concerns regardless of their technology will likely need an upgrade path to keep up with higher bandwidth and greater functionality expectations.

Q15 Can complimentary technologies provide better solutions for the delivery of services in regional Australia?

Complimentary technologies are very much a plan that Westvic has embraced to most effectively deliver services to our regional area. Westvic will implement a strategy of providing ADSL2+ services where the demand requires. This will involve the location of equipment in Telstra exchanges, which is backhauled to our network by wireless links. We believe ADSL2+ is more suited for higher density populations of larger regional centres. ADSL2+ technology is capable of delivering broadband to customers over a copper telephone line up to 7 kilometres from the telephone exchange. Our wireless technology will then provide services to those who cannot access these ADSL services in the immediate and wider area. Satellite could then compliment the areas coverage by providing service to those that can neither receive ADSL nor wireless connection.

Q16 What innovative approaches should Broadband Connect adopt in its program design to utilize these technologies most efficiently and effectively?

Westvic believes that Broadband Connect should have more sophisticated criteria for the allocation of funding. While we believe competition is good for the broadband user, it should be acknowledged that predatory behavior and "cherry-picking" of a geographical area should be discouraged. If a provider's services are funded that actually discourage other providers from offering a much greater geographical area of coverage, this is contrary to the goals of Broadband Connect. If the DCITA takes control of deciding which company will be funded in a particular area and decides this taking all known factors into account, including coverage, services offered, infrastructure capacity and the ongoing viability of the service this could minimize the possibility of large areas being underserved as a result of inappropriate deployments. The DCITA could also consider funding for backhaul infrastructure on a case-by-case basis.

Q17 What capacity do existing technologies have to accommodate the introduction of new developments, such as speed increases, usage and other applications?

The capacity of Telstra ADSL is a maximum of 1500/256kbps, ADSL2+ is a maximum of almost 24Mbps throughput while the wireless network generally is capable of 3-4 Mbps throughput to the customer. Today's technology is capable

of accommodating service that is likely to be expected for several years. With new technologies such as WiMAX very close to being available 50Mbps to the customer will be possible. The challenge will then be to provide the required backhaul to accommodate these new speeds. Economical backhaul will be vital in supporting these new technologies. Wireless backhaul of hundreds of Mbps is currently available albeit expensive.

Q18 Should the current system of incentive payments to providers for the supply of broadband services be retained?

The current system of payment is an effective incentive for providers but should be modified to consider the three dominant technologies being deployed. ADSL, wireless and satellite have different cost structures and incentive payments should reflect this. The difference is the customer premises equipment (CPE) and installation costs. ADSL has an inexpensive CPE cost, wireless a much more expensive cost and Satellite the most expensive CPE cost. Where ADSL is offered, all three providers could be offered a low cost payment. When ADSL was not available but wireless is, a medium level payment could be made. If ADSL and wireless are unavailable, a high cost should be made available to satellite providers. This payment structure will assist in ensuring incentive levels help drive provider's into geographical areas that best suits their method of service delivery.

Q19 Would an up front method of payment be more effective?

Westvic does not believe an upfront payment is the correct method of incentive for customer connections. We believe a more effective way is for each infrastructure implementation to be considered on a case-by-case basis. Seed funding could then be awarded for providers that show an economically sound case for funding. Minimum connection numbers should be achieved before funding is finalized to the provider.

Q20 How else could the method of payment to providers be adjusted to achieve more satisfactory outcomes for providers and people living in regional, rural and remote Australia?

As mentioned previously, the method of payment should be categorized into three sections that better reflect actual provider costs.

Section one: Most of the cost initially with low customer premises costs. (ADSL)

Section two: Substantial initial cost but also substantial customer premises costs. (Wireless)

Section three: Low initial cost but very high customer premises costs. (Satellite)

Q21 Should funding be provided:

- based on the number of customers connected?
- the number of potential premises with potential access?
- a combination of both methods?

Westvic believes a combination of both methods would work best. Seed funding for infrastructure could be agreed upon based on network coverage and potential customer connections. Per connected customer would then apply and assist in supply and installation of customer premises equipment. This would not only provide funding to roll-out infrastructure but also to connect customers.

Q22 If funding was based on the number of premises with potential access should it then only be provided for infrastructure?

If funding for a geographical area were to be based on the number of premises with potential access, this model would be unworkable for most wireless and satellite providers but would suit ADSL providers only. As the customer premises equipment supply and installation constitutes a majority proportion of an incentive payment in many cases, a point would be reached where it would no longer be economically viable to provide a service with other than ADSL. If funding was awarded on the basis of the potential access only, there would be little incentive to pursue customer connections once funding payment had been received.

Q23 How can methods of payment under Broadband connect be better structured to ensure that providers are not overcompensated for the supply of broadband services?

As previously suggested, payments should be based on a combination of infrastructure payments on a case-by-case basis then a payment per customer connection, which reflects the cost per connection. In this way, a provider receives funding for infrastructure and has the incentive to connect customers at a fair compensation per customer that should reflect the actual cost of customer premises equipment and installation. For instance an ADSL provider should receive funding for installing DSLAM equipment etc in a telephone exchange but customer connections should be low payments to reflect the low cost of customer connections.

If as suggested a 12-month limit to claiming subsidies per site were imposed on Westvic this would have negative consequences for those geographical areas. While an ADSL service CPE equipment is very cheap, wireless CPE equipment is not. Customers would not be prepared to pay for this equipment and installation. This would mean after 12-months any person wishing a wireless broadband service would be asked for at least \$1000 per connection. For those within range of wireless, some of the consequences of this would be:

- As children move up in the education system their requirements for Internet access become more important. If outside an ADSL enabled area only satellite will be available to them.
- People moving into a wireless enabled area post funding cutoff will not economically have this service available to them.
- New small business starting up post the 12-month cutoff period could be economically disadvantaged.
- New housing estates on the city outer limits that have Telstra RIMS will not have economical broadband services available to them.
- Anyone outside an ADSL enabled area but within a wireless enabled area will be disadvantaged after the 12-month cutoff period should their broadband needs change.

Westvic Broadband has now offered our wireless broadband HiBIS service in a number of areas for over 12-months. As a result, we know that following the initial high connection rates the demand has remained high in these areas. Westvic Broadband can see no justification for denying any potential customers access to our service simply based on a 12-month cutoff period for funding. This 12-month cutoff will clearly benefit ADSL providers where they are in competition to wireless providers and is anticompetitive in this sense. Rural people will inevitably be unnecessarily disadvantaged. All should be eligible for a funded service during the HiBIS / Broadband Connect scheme regardless of when the service first became available to their area.

Q24 Should the current HiBIS threshold model for speed and usage be maintained at existing levels under Broadband Connect?

Westvic believes the current HiBIS threshold levels should not change. Any suggestion that a minimum of 256/64 with 500MB of download data included is insufficient is out of touch with rural requirements. Westvic has many hundreds of customers on these plans who do not require higher speeds or data limits. High speed plans and data download limits are available if required but at higher cost. Raising threshold speed and cost would unnecessarily raise the cost of plans on those who do not require it.

Q26 Should two separate minimum speeds with two subsidy levels be introduced?

Westvic does not believe an incentive scheme based on speed is necessary. The cost is to provide the service to the customer and not so much the speed of connection. The cost of the speed of connection can be in backhaul capacity and data feed capacity. These costs should be calculated into infrastructure and higher monthly plan costs.

Q27 Do threshold requirements need to be expanded to accommodate other issues such as latency?

Westvic believes the threshold requirement does not require changing. Most Westvic customers are very happy with the service as they are actually able to use the Internet. Previous to this many had dial-up Internet that was practically unusable. Minimum threshold limits should be related to what is available in most of these regional and rural areas before a broadband provider offers their services.

Q28 Should the Broadband Connect Stage 1 price caps be retained under Stage 2?

Price caps do not play a part in deciding pricing from Westvic's perspective as our pricing structure is determined by operating in a competitive environment. Any provider offering a service at the current maximum price cap would be struggling to attract customers in the Western District of Victoria.

Q29 Should a greater range of price caps be introduced than the two currently available?

Price caps may provide safety nets in other areas however as per the previous question are not relevant to Westvic.

Q30 Should the current funding cap level of 60 percent continue under Broadband Connect?

Westvic believes the 60% capping of funding for Telstra should be reduced to no more than 50%. This provides some guarantee for other provider's that funding will be available for the expected duration of Broadband Connect.

CLEVER NETWORKS

16th January 2006

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In reply to the Department of Communications Technology and the Arts call for submission on the *Clever Networks* program, Westvic Broadband Pty Ltd would like to offer the following comments on the provided questions.

Q1 Consider the current DAB program structure – involving State, community and sectoral brokers – is the current arrangement the best model for catalyzing broadband developments in regional, rural and remote Australia of how should it evolve?

Westvic has had little contact with any DAB providers while rolling out services in the Western District. This could be partially because we have managed to attract local government business of both the Moyne and Corangamite Shires without their intervention. In Victoria the State Government has provided funding for Telstra to roll-out infrastructure for State Government Authorities and associated bodies in the form of TPAMS. In our region this covers the state education system and other participating bodies. The public health sector in the area is controlled by a consortium called SWARH (South West Alliance of Rural Hospitals) which is a mainly microwave network owned by AAPT. We believe these factors may have affected the viability of State and sectoral DAB providers to be effective in our region. Westvic would be better served by a DAB that was able to provide a service that was directed more towards industry in our area such as farming and milk production. The Western District has a huge dairy industry which is underserved with services to both factories and the thousands of farmers that supply these factories with their milk product. DAB providers could provide services that specifically concentrate on these large industry groups.

Q2 What role can/should brokers play in promoting or facilitating the effective use of broadband applications in order to enable communities and businesses to capture the transformational benefits of broadband?

For example in the Western District DAB providers could work with the major dairy industry companies to co-ordinate broadband services that would allow the more efficient use of broadband to communicate between factories and farm suppliers. At present much of these communications are by facsimile or Australian Post. In other words, bring the industry as a whole into the 21st century.

This could also apply in other farming industries such as beef cattle, sheep etc. Another area that seems to be underserved in the Western District is the private education system. Westvic provides a number of private schools with broadband services but there doesn't seem to be an organizing body to co-ordinate and ensure maximum service and buying power for these schools.

Q3 What other resources or programs should the brokers be aware of in this role?

DAB providers should be in close contact with local shires and councils in regional areas. These organisations are very aware of the demographics of their ratepayers and are very willing to be involved in any activity that would provide their constituents with better service. Providers such as Westvic should also be consulted as enquiries for services often show a demand by particular groups and services in particular regions.

Q4 Should the broker role include an increased focus on “effective use” outcomes and, if so, which ones?

The broker must ensure that the effective use of any new services is achieved. Westvic believes that effective use of new services must mean that old systems are proven inefficient and uneconomical by comparison. This will drive the development and expansion of services and functionality in the future. Confidence by the end users in new systems and technology is important for continued progression of technology in rural industries and communities.

Q6 How might the broker play a role in facilitating/supporting community-wide connectivity and community-wide (cross-sectoral) networks?

Brokers should be in constant contact with organizations that are in a position to gauge community and sectoral service needs. Organizations such as councils, shires, industry sector leaders and service providers are all in positions to gauge broadband needs in their regions. To gain an overall picture, brokers should be in touch with each other and if necessary work together to achieve the best possible outcomes for communities, industry and regional areas as a whole.

Q7 Should future demand aggregation activities be focused in areas that have yet to receive terrestrial broadband services under HiBIS to support the delivery of the new Broadband Connect program?

Future demand aggregation activities should not be restricted in any way. If a broker identifies an unmet demand they should be encouraged to apply themselves to supporting the meeting of this demand regardless of terrestrial service coverage.

Q8 Are health, education, emergency services and local government the appropriate services for Clever Networks?

Clever Networks should not restrict funded services to only health, education, emergency services and government but rather be focused on case-by-case proposals that will provide substantial community benefits. Health, education, emergency services and government have already and will continue to receive funding from many sources other than Clever Networks, while organizations and sectors outside of these are often overlooked. Westvic Broadband would like to offer a “commercial in confidence” scenario as an example of what we would consider a major infrastructure project to be considered by the Clever Networks scheme. Please refer to attachment “PROJECT SCENARIO” for details. As can be seen by this scenario the benefits are not restricted to any one sector but provide a scalable solution across the entire area.

Q9 Should there be priorities within these groups?

To prioritize funding for groups suggests that certain group’s needs are more important than others. The importance of any particular proposal can only be determined on a case-by-case basis. For example one proposal in the health sector may clearly provide a community with fewer benefits than that of another proposal in the education sector, or vice versa. Factors such as existing services and quality of existing services in the relevant sectors must be considered along with the overall effectiveness of funds spent.

Q10 What other sectors, if any, should also be considered?

Westvic does not believe any sector should automatically be excluded from funding availability. Better criteria would be to provide guidelines that relate to overall community benefit. More weight should be given where projects are able to demonstrate substantial cross-sectoral community benefits which include health, education, emergency services and government.

Q11 Should there be a focus on particular applications/sectors which will require and drive network industry capabilities?

Westvic believes focus should be placed on all proposals that are addressing the needs of any sector providing community benefit. The proposal should demonstrate suitable immediate benefit to the community and the ability to cope with future needs. The funding sought should be reflected in the degree of benefit to the community.

Q12 What strategies could be incorporated into program design to ensure that investment under Clever Networks provides the greatest holistic community benefit?

Clever Networks should carefully consider proposals to ensure that the community benefit gained by funding is in proportion to the proposal cost. Funding of particular proposals could be awarded on percentage of total funding sought depending on a number of predefined criteria.

For example if a proposal was of great benefit to health, education, emergency services, government sectors etc and benefited a wide section of the community, the funding could be 100%. A proposal that was only of benefit to a small part of a community and the emergency services sector could be awarded 30% of total funding sought. In this way projects targeted at very specific needs of a few would require that such groups must partially fund their own projects.

Q13 Is there an ideal balance between infrastructure and applications streams and, if so, how can it be identified?

Specific sectoral proposals will undoubtedly place different emphasis on application streams depending on the sectoral requirements. What is important is that the proposed network infrastructure is designed with the capability of performing all the tasks required of it, and has an upgrade path for future requirements. With this in mind proposals should clearly identify application requirements, technical ability to deliver these applications over the proposed network and the upgrade path strategy for the future.

Q14 What is the best balance between competitively determined and strategic investment funding?

Westvic believes the emphasis for Clever Networks should be on strategic funding. Funding a competitive network deployment will undoubtedly lower prices in the region of deployment but will not help regions lacking infrastructure. Clever Networks should fund the deployment of infrastructure to areas where infrastructure is causing a lack of services at fair prices. Proposals that can demonstrate strategic as well as increased competition to an area could be looked on more favorably.

Q15 Would potential proposals be improved if the guidelines permit proposals which encompass both infrastructure and applications aspects?

Westvic believes that Clever Networks funding should primarily be for backbone infrastructure and the application aspects should generally be secondary to this. The proposed networks funded by Clever Networks should however be technically capable of supporting the intended applications using both current and emerging technologies.

Q16 What key strategic investments in broadband infrastructure have the potential to provide the best outcomes?

Key Strategic investment in non sectoral specific, scalable, high capacity and carrier grade IP based infrastructure will ensure support for both current and emerging technologies. Such network infrastructure will be capable of supporting the diverse range of broadband IP services that are currently available and emerging technologies as they become available. Where new infrastructure can provide competition for existing services, the opportunity exists for lower prices and better service to the community. New backbone infrastructure can provide economical wholesale backhaul services so broadband providers can compete in geographical areas previously denied to them. The Clever Networks investments can work in conjunction with the Broadband Connect scheme to push forward in bridging the digital divide between city and rural communities. Westvic believes investment in this type of infrastructure will provide the best overall outcomes.

Q 17 Are there complementary sources of funding/contributions which should be considered in development for the Clever networks program?

It should be expected that companies or groups applying for funding under Clever Networks contribute to the overall success of the infrastructure deployment. Westvic would like to point out that the initial monetary requirements for equipment etc are only one part of a successful and ongoing service. Many other factors should be considered as contributions to these projects. Management of infrastructure deployment and assuming responsibility for ongoing costs such as maintenance, upgrades, leasing etc can be substantial and should be considered as significant contributions to projects.

Q18 Should there be specified minimum broadband specifications (e.g. Bandwidth, latency Etc) for Clever Networks and, if so, what should they be and how should they be determined?

Each proposal should be considered on a case-by-case basis as differing network infrastructures will have different performance requirements. For instance a network claiming Carrier Grade VoIP services will have different performance requirements in QoS than a basic Internet service. Infrastructure for different sectors could have varying minimum performance requirements. Other networks that cover a number of sectors and types of services may have varying levels of service within the network. It is therefore very difficult to specify a general minimum level of service. In the proposal for Clever Network funding the nature of the infrastructure and minimum levels of service suitable to supported services should be stated. Supportive evidence that minimum service levels can be achieved should also be provided.

Q19 What steps/mechanisms can or should be incorporated, if any, into Clever Networks to enable regional, rural and remote communities progressively to transition to high/higher bandwidth networks?

Clever Networks proposals that incorporate the ability to deliver services under Broadband Connect in a time frame that will enable substantial Broadband Connect coverage should be looked upon favorably as a means to transition regional and remote Internet users onto quality low price broadband services.

Q20 New technologies are showing considerable promise in providing broadband access to users well outside the current DSL limitations. What strategies should be adopted to encourage and support deployment of these new technologies, and to ensure newly emerging technologies are not precluded during the life cycle of the program?

Westvic believes that Clever Networks funded infrastructure should support new emerging technologies where applicable. WiMAX and ADSL2+ are of particular interest to Westvic. As new technologies are IP based, new networks need to be IP based and scalable. By providing advanced routing capabilities and capacity upgrade paths, this will economically allow for new technologies as they are deployed.

Q21 What supporting information should be required in Clever Networks proposals in order for their sustainability beyond the life of the program to be evaluated effectively, and what factors should be considered in determining sustainability?

Clever Networks proposal applicants should provide Clever Networks with an extensive description on the proposed network infrastructure, capabilities and features of such. The provider's planned use of the infrastructure and the expected uptake of supported services with supportive evidence should be provided. A comprehensive business case proposal showing the projected commercial viability should be made available.

Q22 For any new infrastructure created or made available, should there be specified minimum infrastructure access arrangements for parties other than infrastructure owners, such as wholesale-rate for backhaul?

Westvic believes that Clever Networks should determine a fair minimum access arrangement on a case-by-case basis. For example a minimum rate for a funded Telstra fibre backbone cable could be much greater than for a 30Mbps microwave link by Westvic. Or in the case of a Westvic communications tower space could be used by other providers at a fairly priced wholesale rate. On the other hand this minimum rate should not end up as non utilised capacity. A provider should have an option to use spare capacity if it can be justified.

Q23 How realistic is such a requirement, and how tangible are the likely benefits of the approach?

A requirement to make spare capacity available to other providers is a realistic request and we believe a sensible approach. Westvic as a regional HiBIS broadband provider finds a lack of economically available backhaul infrastructure as one of the major hurdles to overcome. Trying to economically access Telstra infrastructure is near to impossible for small companies like Westvic. If this type of condition had been made on Telstra when they were funded the \$115 million for their cellular communications towers, Westvic could much more cost effectively roll-out our wireless network now.

Q24 How can an appropriate charging regime for such access be determined?

An appropriate charging regime could be established by determining the chargeable rates from areas where there is a competitive market for similar services. For instance if annual rental of tower space for an antenna is generally \$3,000 per year in a competitive market place then this could be the maximum chargeable cost regardless of competition. Likewise wholesale pricing for leasing of a fibre cable could be based on a similar cable leasing costs charged in a competitive market place. This could be applied across most if not all aspects of wholesale pricing caps on infrastructure funded by Clever Networks.

Q25 What other program activities should be taken into consideration in determining Clever Network program eligibility and entitlement?

Providers that are:

- Committed to provide a service to areas currently underserved in regional and rural communities.
- Willing to share their funded infrastructure with others at reasonable wholesale rates.
- Able to successfully compete in competitive markets and remain economically viable.
- Able to tie in Broadband Connect funding to ensure timely delivery of services to regional and rural end users.
- Offering alternative wholesale and retail services in competition to Telstra.
- Committed to introducing the latest technology and providing upgrade paths for future developments.

Q26 Having regard to the possible diversity of activities under Clever Networks, what strategies can/should be considered?

Case-by-case consideration should be given to each project's merit as to the benefits obtained by the requested funding. Clever Networks should fund

infrastructure projects that maximize the potential benefits to regional and rural communities rather than for projects that benefit only a small number of recipients.

Care should be taken to avoid providing unconditional infrastructure funding to companies that will then enable that company to totally monopolize services to a community or sector. Funding should not be unconditionally given where this will discourage or unduly inhibit other providers from competing where markets allow.