



WESTERN AUSTRALIAN  
LOCAL GOVERNMENT ASSOCIATION

18 January 2006

Our Ref: 06-004-03-0005/AL:BM\_BC\_CN

Your Ref:

Regional Broadband Policy and Technical Support  
Department of Communications, Information Technology and the Arts  
GPO Box 2154  
Canberra ACT 2601  
Australia  
Email: [BC-CN@dcita.gov.au](mailto:BC-CN@dcita.gov.au)

Dear Sir / Madam,

**Re: Response to the Broadband Connect and Clever Network Discussion Paper**

The Western Australian Local Government Association (WALGA) is a not-for-profit Association incorporated under the Local Government Act of 1995. WALGA is the peak body of Local Government in WA, providing inter-governmental representation, advocacy, and services to the 144 rural and metropolitan Local Governments Authorities throughout mainland Western Australia, including the Shires of Christmas and Cocos (Keeling) Islands.

Western Australia has some unique geographic and demographic considerations from a telecommunications perspective, especially in relation to rural and remote regional locations. Accounting for over 33% of the total land mass of the continent, with only 9.9% of the population, the telecommunications needs of the population of Western Australia are irrefutably unique. From a Local Government perspective, 114 of the 144 Councils are located within regional areas, and span 99% of the state geographically.

As a major service provider to, and custodian of community interests across the state, especially in the rural and remote context, WA Local Government has a keen interest as to the implementation of the Connect Australia program, and ultimately the provision of sustainable Broadband services commensurate with the needs of the private, public, non-for-profit and commercial consumer(s). In this environment, please find following our submission to the department in relation to the above matter.

Yours sincerely,

**Cr W (Bill) Mitchell**  
**President**

Local Government House  
15 Altona Street  
West Perth WA 6005

PO Box 1544  
West Perth WA 6872

Telephone: (08) 9321 5055  
Facsimile: (08) 9322 2611  
Email: [info@walga.asn.au](mailto:info@walga.asn.au)  
Website: [www.walga.asn.au](http://www.walga.asn.au)



---

## ***WALGA Response to the Broadband Connect and Clever Networks Discussion Paper***

### **Introduction**

The announcement of the *Connect Australia* package by the Minister for Communications, Information Technology and the Arts package on August 17, 2005 recognised the existence of gaps in the delivery of mobile and broadband services to remote, rural and regional areas.

The Western Australian Local Government Association (WALGA) and its members has consistently maintained that universal access to affordable broadband is a key determinant for sustainable communities, and the removal of the so called “digital divide” is a priority that needs to be addressed. We are greatly encouraged by the federal government’s acknowledgement of this service delivery inequity, and welcome the funding of targeted initiatives to address this gap. However, we are cautious as to the required level of investment to “future proof” the delivery of broadband services to remote, rural, and regional Australia, including the ongoing maintenance and upgrade of these services.

The State of the Regions Report (2005-06) produced by National Economics on behalf of the Australian Local Government Association (ALGA), estimated that the cost to maximise the number of Australians living close to “fibre optic connected DSL equipment” is approximately \$2.8 billion (excluding long run maintenance costs). This estimate only provides for the provision of infrastructure to the exchange, and does not include costs for last mile connection services. Indeed the current focus of many of these solutions, being xDSL based services, will not ever reach 100% of the population base. It is reasonable therefore to project that an even greater investment is required to achieve the overall objectives of the *Connect Australia* program.

It is considered that the evolutionary nature of the *Broadband Connect* and *Clever Networks* arising from the Higher Bandwidth Incentive Scheme (*HiBIS*) and the *Coordinated Communications Infrastructure Fund (CCIF)* provides the opportunity to build upon the previous successes, and also to address some of the limitations of these programs, and we are therefore pleased to provide our comments and response to the *Broadband Connect* and *Clever Networks* Discussion Paper following.



## General Recommendations

The discussion paper outlines that the “... *Broadband Connect and Clever Networks programs will be managed as separate programs each with its own guidelines and administration. However, the programs share some linkages and will operate in parallel...*” It is considered essential that a coordinated strategic framework overlays the deployment of infrastructure and services arising from these two programs. In order to maximise the investment into, and sustainability of end-user services, infrastructure must be deployed in an optimal manner, and should ideally be “common use” type infrastructure that allows for service providers in the open market to access for delivery of end-user broadband services.

The Australia Local Government Association (ALGA) response to the discussion paper identifies several concerns arising from previous initiatives including the Higher Bandwidth Incentive Scheme (HiBIS), Coordinated Communications Infrastructure Fund (CCIF), and the National Communications Fund (NCF). WALGA supports the essence of these concerns, as distilled into the following points:

- Unless a 'whole of region' approach to the provision of broadband services is adopted, duplication of telecommunications infrastructure may occur (for example, disparate networks for health, education, emergency services, local government etc). Therefore a strategic approach/framework needs to be implemented in order to encourage “open” networks, especially amongst and across spheres of government.
- Exclusion of the local government sector under the NCF ignored the role of local government as a key service provider in the rural, regional and remote context, including the provision of health and other services. This stymied opportunities for the consolidated delivery of community focused services including those of specific to local government, public libraries and museums, schools and local health centres.

Apart from where xDSL services were “resold” (underpinned by wholesale agreements between Telstra and the third party) by Internet Service Providers (ISPs), there is little other evidence to suggest that that HiBIS funded broadband infrastructure was, or can be, practically “shared” or leveraged by other service providers into the future. This raises the question therefore of whether there are alternative and innovative ways of funding “common use” broadband infrastructure.

It is suggested that a viable approach to delivering this outcome may consist of funding a strategic project(s) to implement a series of strategically located “regional peering points” whereby broadband service providers can access fiscally beneficial arrangements to reduce the impact of the ubiquitous backhaul “issue”. This model also allows for the development of a “meshed” network, of various interconnect technologies, thus promoting sustainability through lower access costs, and also single point of failure resistant networks. Reference is made to the South West Internet Exchange (SWIX) model contained in the City of Bunbury’s “Smart Communities” strategy for addressing the digital divide.

This type of “whole of region” approach is consistent with the recommendations arising from the “Better Rural Services” discussion paper issued by ALGA, and can be practically supported through a tri-partite regional partnership arrangement involving local government, industry grouping (eg. Chambers of Commerce), and the economic development agencies of state and territory governments.



---

## Specific Recommendations:

- That a specific strategic coordinating component be established between *Broadband Connect* and *Clever Networks* to ensure optimisation of the return on investment through funded projects being leveraged to the fullest extent.
- That any direct public expenditure for infrastructure necessitates that this infrastructure be practicably accessible to the open market on an equitable basis. Specifically, any “shareable” physical (non-active) infrastructure improvements (for example communication masts, equipment huts, conduit etc) should be vested in Local Government for administration, and that access to this infrastructure for service providers be granted on a cost recovery basis. Cost recovery should also factor in the total lifecycle costs of maintaining and administering this infrastructure for the benefit of the community.
- That a specific list of such publicly funded infrastructure improvements be held and maintained in a formal register to facilitate planning purposes for service providers and interested stakeholders, including the current and future Demand Aggregation Broker (DAB) program.
- That the role of Local Government as a focal point and key provider of community focused services across sectors such as health, education and emergency management is duly recognised.
- That the concept of “regional peering points” be considered as a viable innovation supporting the delivery of sustainable broadband services to rural and regional Australia, and funded through a strategic component of *Connect Australia*.



---

## ***WALGA response and recommendations to the (pertinent) questions in the Broadband Connect section of the discussion paper***

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

It is considered that sustainable quality services in this context requires the following elements; (i) multiple service providers in the region, leading to consumer choice (ii) multiple service provision technologies, preventing long term access monopolies. Only by creating an environment of effective competition can long term sustainable broadband solutions be delivered.

This aligns with one of the stated policy objectives for Broadband Connect to “*provide incentive payments that reflect market cost structures and promote competition in the provision of services*”.

In this context, it is argued that the provision of incentive payments targeted at the provision of widely accessible, and economical affordable, infrastructure provides a greater long term benefit than subsidies aimed at “end user connection” which cannot necessarily be leveraged into the future.

*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?*

*And*

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

The HiBIS program has seen the deployment of service provision models including wireless local loop and wireless broadband above and beyond the extension of DSL enabled exchanges. In general, industry investments in these networks have been obtained on the basis of sufficient local demand thresholds, and are extendable in terms of “hops” in between these “localised” areas of commercial viability.

However, for any service provider, the “issue” of backhaul still needs to be addressed, and the *Broadband Connect* program is urged to consider viable innovations supporting sustainable broadband service provision such as the South West Internet Exchange (SWIX) model as developed by the City of Bunbury.

Through the funding of strategically targeted infrastructure projects that address the current “issues” surrounding backhaul, encouragement is provided to broadband service providers to enter into the remote, rural and regional markets by effectively lowering the “entry costs”. This leads to a move away from the current market situation whereby the “local” broadband market in many instances is effectively a monopoly or at best a duopoly, towards the “best case” end-user environment of a market that is an oligopoly (and ideally perfect competition).



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

Satellite and terrestrial broadband services exhibit marked differences in terms of characteristics. Latency and prevailing atmospheric conditions can make the “end user” experience of broadband variable depending upon the type of connection technology. It is noted that both terrestrial and satellite technologies provide advantages and disadvantages over the other, with neither being universally superior, rather, each type of service may be more suitable depending on the application and service provision area.

With all things being equal (eg. backhaul availability and costs, end user-plan costs), it is considered that in the majority of locations and cases that terrestrial services deliver a more effectual service to the consumer. However, the capital and end user operational costs differ markedly, and thus is a consideration for user adoption of each type of service. Affordability is a prime driver.

However, from a Local Government perspective, the delivery of Local Government and other services is increasingly reliant on web or network services. Further, given the nature of some of these services (i.e. dependant on “real-time” interaction and not of a “streaming” nature), especially in relation to emergency management and response responsibilities, it is considered that terrestrial broadband services provides the most appropriate quality and reliability of connection technology, but needs to be delivered at affordable costs, affordable in this context defined as being comparable to metropolitan service areas.

*Q5 Can satellite be delivered as competitively as terrestrial services?*

From a remote location, and in some cases, regional perspective, the principal determination for delivery of broadband service provision relates to costs associated with the “backhaul” arrangements.

In the context where supply of backhaul through terrestrial connectivity is cost prohibitive, it is considered that backhaul through an appropriately provisioned satellite service may be delivered competitively. This is applicable whether the backhaul is effectively for one (1) end user (eg. Remote farmstead) or to multiple end users in a remote community (eg. a seasonal fishing village).

However, to facilitate the analysis for the most effective delivery technology, a publicly accessible register of all available “backbone” infrastructure should be available.

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

*and*

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

It is considered appropriate that participating service providers under the *Broadband Connect* program provide some level of commitment, and agree to specific obligations to remain eligible under recipients of this funding.

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

Recommendation ten (10) of the ALGA submission in relation to a three “division” funding structure (with the third division comprising of the current two “tier” subsidy) is supported.



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

Please refer to our comments in relation to questions two (2) and three (3).

*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 service areas (with approximate dates of commencement of supply);*
- *the viable geographic reach of broadband services from central transmission points for service delivery;*
- *technical barriers limiting the application of providers' technology in regional communities;*
- *the capacity of providers' technology to support varying types of broadband traffic and use;*
- *the range of service speeds providers' technology would be able to support;*
- *the capacity of providers' technology to provide services now and to accommodate new developments such as increased speed, usage and applications in the future;*
- *the particular relevance of the technology to other communication services (for example, capacity to be used also for supporting mobile telephony services);*
- *a summary of the broad nature of technology they employ; and*
- *anticipated timing and target areas for their technology deployment in regional Australia.*

Please refer to our comments in relation to question seven (7).

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

Wireless local loop and wireless broadband services are currently being deployed under the HiBIS scheme. As these technologies evolve and standards mature, it is argued that these may provide the most impact from a regional perspective, taking into account the "cost versus reach" (or cost versus coverage) factor.

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

Beyond the comments supplied in response to questions two (2) and three (3), specifically in relation to the regional peering point model, two other considerations are proposed.

(a) That the minimum levels of "speed" and "quality of service" are set for program eligibility to account for current and anticipated short/medium term needs, and a mandated review process and timeframe be established to keep these requirements current into the future. (refer also to response to question 25);

(b) That any "shareable" physical (non-active) infrastructure improvements (for example communication masts, equipment huts, conduit etc) should be vested in Local Government for administration, and that access to this infrastructure for service providers be granted on a cost recovery basis, accounting for total lifecycle costs of maintaining and administering this infrastructure for the benefit of the community.

In establishing this operating environment or "marketplace", service providers are then free to utilise their commercial and technical expertise to leverage the most appropriate technological solutions and business models to deliver sustainable broadband services.



*Q21 Should funding be provided: - based on the number of customers connected? - the number potential premises with potential access? - a combination of both methods?*

*And*

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

As discussed previously, funding should be segmented into a strategic component, and also an “end user connect” component.

The strategic component can then be used to fund “potential access” (or common use infrastructure) on the proviso that this infrastructure is legally, practically, and reasonably priced for access in a competitive market for all current and future broadband service providers.

The “end user component” is as the name suggests, relevant only for the number of directly subsidised connections or nodes.

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

*And*

*Q25 Should the model be retained with increased minimum speed and/or usage requirements?*

It is imperative that the threshold models for speed, usage levels, and “quality of service” (such as latency) be reviewed and updated to reflect current world class services.

Further, these thresholds requires a mandated regular review to ensure that these minimum standards reflect contemporary world trends and to effectively “future proof” the investment.

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

The requirements of an “eligible customer” under the Broadband Connect program can be significantly varied. For instance, an individual home user is likely to have much lower threshold requirements than that of an organisation (such as a small business or Council of twenty employees). It is therefore appropriate that different subsidy levels be established.

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

Please refer response to questions twenty four (24) and twenty five (25).

*Q30 Should the current funding cap level of 60 per cent continue under Broadband Connect?*

In an environment of perfect competition, funding caps are not necessary. However, in the current broadband service provision marketplace, this is not the case, with the relative power(s) and control of competitors in this market being vastly different.

Further, given statements in relation to the dominant supplier of backhaul and xDSL services in Australia signalling its intention to withdraw from the “wholesale space”, this leads to further discrepancies for competitors to effectively operate in the various markets.

Therefore, it is argued that a funding cap is justified to preserve equitable access to the *Broadband Connect* program.



## ***WALGA response and recommendations to the (pertinent) questions in the Clever Networks section of the discussion paper***

*Q1 Considering the current DAB program structure - involving State, community and sectoral brokers - is the current arrangement the best model for catalysing broadband developments in regional, rural and remote Australia or how should it evolve?*

*And*

*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?*

In order to facilitate the realisation of benefits to be derived through broadband deployment, it is essential that an environment is established that includes:

- the encouragement of the proliferation of competitive broadband service providers servicing regional, rural and remote Australia;
- encourages end user adoption through education and informing of the social and economic benefits that are to be accrued.

The response to questions two (2) and three (3) of the Broadband Connect questions discusses a tripartite structure between local government, business representative group, and state/territory economic development agencies. This model is also seen as applicable to the DAB program structure to establish the requisite environment outlined above.

At a responsibility level, brokers should operate at the local and regional levels (irrespective of whether they have a regional or sectoral perspective) as long as the strategic coordination exists.

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

Targeted services considered suitable for Clever Networks include the following:

- health, education, emergency services, local government, as well as community services such as library, aged care and environmental management.

In the context of targeted services, consideration should also be given as to the service delivery agents responsible for the back and front office elements of service delivery.

Specific note of the role and assumed responsibility of local government in the delivery of “cross sectoral” and “cross-jurisdictional” services such as health, emergency response, and educational library services etc should be made in the design and evaluation of Clever Network initiatives.

In the WA context, a state government initiative is underway called the Shared Land Information Platform (SLIP) initiative that includes amongst others, focus areas in natural resource management and emergency management. The benefits to be realised from these projects could be increased greatly if all stakeholder groups, including local government could participate fully through appropriate broadband solutions / networks that are facilitated by *Clever Network* funding if identified as priority considerations.



*Q9 Should there be priorities within this group?*

WALGA supports recommendations eleven (11), twelve (12) and thirteen (13) of the ALGA submission, and in specific:

- that a substantial amount of the Clever Networks program be reserved to extend existing broadband networks to include all councils, public libraries and museums in Regional Australia;
- that significant funding be reserved to establish “gateways” from any existing local government, and library and museum networks to other government networks;
- that special consideration be given to regional, rural and remote councils in that their capacity to make financial contributions to Clever Network initiatives are limited due to the nature of their revenue streams, and that any contribution by councils be restricted to in-kind contributions only (eg. Access to mast sites etc).

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

Please refer to the response supplied to questions two (2), three (3) and sixteen (16) of the Broadband Connect questions.

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

Please refer to the response supplied to questions two (2), three (3) and sixteen (16) of the Broadband Connect questions.

*Q17 Are there complementary sources of funding/contributions which should be considered in developing the guidelines for the Clever Networks program?*

WALGA supports recommendations thirteen (13) of the ALGA submission, and in specific:

- that special consideration be given to regional, rural and remote councils in that their capacity to make financial contributions to Clever Network initiatives are limited due to the nature of their revenue streams, and that any contribution by councils be restricted to in-kind contributions only (eg. Access to mast sites etc).

*Q18 Should there be specified minimum broadband specifications (eg. bandwidth, latency etc) for Clever Networks and, if so, what should they be and how should they be determined?*

*And*

*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?*

*And*

*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 emerged technologies are not precluded during the lifecycle of the program?*

The response supplied to questions twenty four (24), and twenty five (25) of the *Broadband Connect* questions apply in so far as that the minimum specifications for *Clever Network* initiative should support the aggregated provision of delivery of minimum services provided under the *Broadband Connect* program.



---

*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 a wholesale-rate for backhaul?*

*And*

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

*And*

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

Please refer to the response supplied to questions two (2), three (3) and sixteen (16) of the Broadband Connect questions.

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

Previous arguments for a “strategic component” of funding to align the various objectives of Broadband Connect, Demand Aggregation and Clever Networks apply.

\_\_\_\_\_ END \_\_\_\_\_