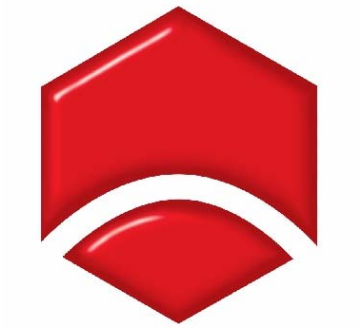
BROADBAND CONNECT AND CLEVER NETWORKS PROGRAMS

SUBMISSION TO THE DEPARTMENT OF COMMUNICATIONS INFORMATION TECHNOLOGY AND THE ARTS



ENGINEERS
AUSTRALIA

MARCH 2006

Contact: Leanne Hardwicke
Engineers Australia
11 National Circuit, Barton, ACT 2600.
Tel. 02 6270 6555, Fax. 02 6273 4200.
email: policy@engineersaustralia.org.au
http://www.engineersaustralia.org.au

1. INTRODUCTION

Engineers Australia is the peak body for engineering practitioners in Australia representing all disciplines and branches of engineering. Membership is now approximately 75,000 Australia wide. Engineers Australia is the largest and most diverse engineering association in Australia. All Engineers Australia members are bound by a common commitment to promote engineering and to facilitate its practice for the common good.

Engineers Australia has taken a strong interest in the development of infrastructure to meet the economic and social needs and welfare of Australia. Engineers Australia's Infrastructure Scorecards have from time to time considered telecommunications, water, road, rail, and energy infrastructure both nationally and on a State by State basis.

Telecommunications infrastructure is an important part of the national fabric and Engineers Australia has recently commenced a project to assess and report on the current state of the Telecommunications and Information Technology Infrastructure.

Engineers Australia considers ICT infrastructure in Australia to be an essential national asset irrespective of asset ownership. Engineers Australia endorses the fundamental requirement that infrastructure must be sustainable in meeting and delivering specific community needs and expectations. In particular, the infrastructure must be maintained and replaced, where necessary, on a equitable basis across the community. Furthermore, it is reasonable that a business based approach should be taken to any infrastructure investment and the costs met in an appropriate manner.

Under the telecommunications regulatory regime, carriage providers are readily able to construct infrastructure, typically for business, competition and/or strategic reasons. Such telecommunications infrastructure is subject to an access regime. Nevertheless, carriage providers often elect, in the access network (first mile) and in the core network, to construct partially or fully independent infrastructure in order to provide services. By comparison, most other infrastructure such as rail, high voltage plants and lines, etc., is generally provided on a regulated monopoly basis (with corresponding access regimes) and construction of alternative infrastructure is rarely an option. This inevitably leads to different considerations in regard to investment in telecommunications infrastructure, which is essentially owned and operated by entities in competition with other entities in the same market space.

Engineers Australia supports the application of Government funds to enable the establishment of ICT infrastructure where it would not otherwise exist, on the proviso that the infrastructure can be operated on a commercially sustainable basis. Investment which duplicates existing under-used infrastructure may not be in the national interest, except where duplication adds sufficient sustainable value to the service to the public. Where duplication cannot be justified, appropriate arrangements (including establishment of ring fenced arrangements) may be required to meet community needs on an equitable basis. Such arrangements should not prejudice the legitimate interests of the owners of underutilised infrastructure.

Where Government funds a substantial component of infrastructure, rigorous interconnection obligations (including reasonable commercial terms) need to be put in place while taking into consideration the long term maintenance cost of such infrastructure, ultimate replacement of the infrastructure (provision for depreciation) and the associated risk borne by the infrastructure operator/owner. It is also essential that Government funding allocation be based on an integrated and strategic approach with an eye to satisfying the growing demand in the medium to long term.

The regulations for the use of such infrastructure need to allow for fair and adequate benefits to the owner of the infrastructure, while protecting the access rights of other commercial operators wishing to access those assets in order to provide a service to a customer, even if in competition with the asset owner. Denying the infrastructure owners reasonable commercial benefits commensurate with the risks of building and investing in infrastructure will discourage further investment and will distort the market. A lack of regulations protecting other commercial users from uncompetitive accessing regimes will lead to poor customer service or duplication and over investment. In either case, this would be a waste of valuable funds, and would reduce the available funds for other infrastructure suffering from under investment. The community ultimately pays the price.

Engineers Australia considers that the considerations outlined above should be applied in respect to any infrastructure funded through the Connect Australia program whether for local access or core network purposes. The following comments are made to the questions raised by DCITA in the discussion paper with regard to the Broadband Connect Program.

Engineers Australia would apply the same principles to the Clever Networks program as for the Broadband Connect program. DCITA may wish to consider the optimum means of coordinating the use of funds under the two programs. Creating artificial separation between Broadband Connect and Clever Networks may result in disaggregation, lack of synergy and duplication of infrastructure leading to waste of funding.

2. RESPONSE TO 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?

Funding for infrastructure can be optimised if it follows a study that has analysed existing infrastructure and services that are available in regional/rural areas, previous funding granted to applicants, and the improvements made by previous applicants. Funding for infrastructure can then be based on expected medium to long term improvements. Market forces may assist in achieving long term sustainable broadband solutions, however, appropriate access regimes must be established for both new and existing infrastructure.

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?

Any infrastructure funded under the Broadband Connect Program should be covenanted with an open access obligation to facilitate the implementation of competitive networks funded by third parties. Where funding is specifically associated with infrastructure for an end user premise, relief from open access may be appropriate for an initial period.

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

Any infrastructure funded under the Broadband Connect Program should be covenanted with an open access obligation to facilitate the implementation of competitive networks funded by third parties. The return on investment based on demand and expected take-up in the regions needs to be a factor in determining the level of funding appropriate for that region. Where funding is specifically associated with infrastructure for an end user premise, relief from open access may be appropriate for an initial period.

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

Funding should be technology agnostic. Technology must be able to meet the stated service objectives and be justified on a business case basis. Satellite technology should not be regarded as an alternative to terrestrial but complementary especially in rural areas where other infrastructure does not exist: hybrid satellite (backhaul) and terrestrial wireless (for local access) networks should be considered eligible for funding.

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

Funding should be technology agnostic. Technology must be able to meet the stated service objectives and be justified on a business case basis. Satellite technology should not be regarded as an alternative to terrestrial but complementary especially in rural areas where other infrastructure does not exist: hybrid satellite (backhaul) and terrestrial wireless (for local access) networks should be considered eligible for funding.

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

It is essential that the participants commit to the areas identified in the applications unless they can effectively demonstrate the reasons for variation for approval by DCITA.

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

Timeframes are important with some flexibility to allow for factors that are outside the applicant's control as judged by DCITA. Where parties make joint applications, all parties, not only the lead party, need to be questioned by DCITA to provide

reasons. Such transparency and involvement of all parties, which are contributing in funding for the construction of the respective infrastructure projects, would facilitate greater accountability of the leading party. It is recommended that special effort is made by DCITA to avoid repetition of any negative issue, raised by the applicants, or the public at large, following the implementation of previous funding initiatives such as the CCIF.

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?

Prioritisation of funds is a must but should not be used to top up previously funded projects under different schemes such as HiBIS or CCIF, where the previous conditions of funding have not been met by the recipients.

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

Please refer to response to Q3.

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

Technology must meet the stated objectives, selection to be based on cost effectiveness and sustainability. Staged migration between technologies to match demand may need to be considered.

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

It is important that the funding is based on the demonstrated infrastructure capability in delivering sustainable benefits. Information sought should be strictly limited to that absolutely necessary to ensure that funds will be applied to meeting the stated objectives, including service levels and sustainability of the service. Eliminating unnecessary information would reduce overheads to DCITA and to the service provider as well as improving time to market, which can be important for new carriers with a particular competitive advantage. However, appropriate time extension/s may be required in order not to disadvantage applicants undertaking surveys or detailed analysis.

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?

This is a matter, it is assumed, will be addressed in DCITA's Technology Pathways consultancy.

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

This is a matter, it is assumed, will be addressed in DCITA's Technology Pathways consultancy.

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

This is a matter it is assumed will be addressed in DCITA's Technology Pathways consultancy.

Q15. Can complementary technologies provide better solutions for delivery of services in regional Australia?

Funding should be technology agnostic. Technology must be able to meet the stated service objectives and be justified on a business case basis. Evolving technologies such as Broadband on Power Lines (BPL), which is in its infancy, should be considered for funding as a pilot project.

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

Broadband Connect should allow applicants to apply for sufficient up front funds to remove barriers presented by high start up costs where the case for such networks meets the infrastructure sustainability tests (including scalability) for the project. Unproven innovative technologies should be funded initially on a smaller scale on trial basis.

Q1. 7 What capacity do existing technologies have to accommodate the introduction of new developments, such as increased speeds, usage and other applications?

This is a matter, it is assumed, will be addressed in DCITA's Technology Pathways consultancy.

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

Broadband Connect should allow applicants to apply for sufficient up front funds to remove barriers presented by high start up costs where the case for such networks meets the infrastructure sustainability tests (including scalability) for the project.

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

Incentives for sustainability, service take-up rate, quality of service including pricing could be appropriately considered.

Q21. Should funding be provided:

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

Please refer to response to Q 20.

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

The cap may need to increase or decrease depending on availability of other infrastructure in the region for both access and backhaul networks on a case by case basis.