

NATIONAL BROADBAND NETWORK SUBMISSION

REGIONAL TELECOMMUNICATIONS EYRE PENINSULA SOUTH AUSTRALIA

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EXECUTIVE SUMMARY

In response to the call for National Broadband Network requests , regarding priorities for the 2008-09 Budget, the Eyre Regional Development Board (ERDB) seeks commitment of Federal Government funds towards the establishment of a wireless broadband network to serve the rural areas and smaller communities of the Eyre Peninsula in South Australia.

Whilst the Eyre Peninsula has a relatively small population of 33,000 scattered over an area the size of Tasmania, the local economy is approximately \$1.75 billion pa, based largely around export-related agriculture, seafood/aquaculture, mining and tourism industries. The region produces 33% of South Australia's grain and 70% of the State's seafood, most of which is exported. The region sees itself as a key economic driver of both the state and the nation, generating significant export revenue.

These businesses operate in fast-moving global markets and need the ability and tools to monitor world trading and futures markets. This relies on having access to world-class telecommunications and broadband services. At present many businesses in the region's largest industries are dependent on a system that provides dial-up internet connections with speeds of 28kbps (if they are lucky!). If this situation is not addressed, through the provision of broadband communications services, the economic growth and sustainability of these important industries and the region's future economic prospects are at serious risk.

Further, at a personal level, people in rural and remote communities have less access to goods and services, less choice and less consumer information than people in the major cities. The Internet can help to reduce the gap by providing access to things such as education, health and other government services, online banking, e-commerce, and the whole gamut of global services and information.

The recently released Engineers Australia "Telecommunications Infrastructure Report Card 2007" gave Eyre Peninsula a rating of "F" for both fixed and mobile telecommunications infrastructure. This was the worst rating, equating to "Inadequate – there is minimal telecommunications infrastructure and the minimal expectations of the majority of users cannot be met".

ERDB has attempted, to date unsuccessfully, for around four years, with strong support from our local Councils and the South Australian Government, to get a project implemented to provide broadband services to as large a portion of the Eyre Peninsula as is reasonably feasible. When our quest began the only broadband available in the region was ADSL services in Pt Lincoln and Ceduna. In the intervening period ADSL services have been enabled in most of the main towns in the region. Whilst a welcome development this has made it increasingly difficult to develop a financially sustainable proposal to provide services to the remaining rural population and smaller communities, comprising over a third of the region's population.

The result is that on current estimates around 37% of the Eyre Peninsula population does not have access to a terrestrial broadband service and is extremely unlikely to gain access to such services. This represents around 12,000 out of a regional population of nearly 33,000.

The call for proposals under the previous Federal Government's Broadband Connect Infrastructure Program initially provided some hope of a longer-term solution for Eyre Peninsula. Unfortunately, the October 2007 announcement of OPEL (Optus and Elders) as the successful bidder and their proposed network coverage indicated nothing for Eyre Peninsula

outside Pt Lincoln and Tumbly Bay. Subsequent discussions with the OPEL design team have indicated that this situation is extremely unlikely to change.

This leaves Eyre Peninsula still searching for a broadband solution for a significant proportion of its population. However, we believe that, with recent advances in wireless technology, it is still possible to find a viable solution. Unfortunately, such a solution is unlikely to be provided by market forces within the telecommunications industry. Hence any solution is dependent on a guarantee of funding support from the Federal and State Governments.

Although the Australian Broadband Guarantee (ABG) program provides a mechanism for Federal Government support, the conditions of the ABG program are unfavourable for large, region-wide infrastructure builds of the nature required for Eyre Peninsula. The risk for a telecommunications provider in an Eyre region project under ABG is excessively high because of:

- the lack of any commitment that ABG funds will be available by the time infrastructure has been designed and built (a lengthy process of 12-18 months for a “whole-of-region” project such as Eyre Peninsula), and
- the nature of the ABG’s “per service” subsidy after services have been installed.

The South Australian Government previously approved almost \$1million from its Broadband Development Fund (BDF) towards the network infrastructure for ERDB’s first proposal, but the project did not proceed after a change of ownership of the telecommunications provider. Subsequently, the South Australian Minister made this amount available for a second process to seek a suitable project, but the demise of the Federal Government’s Broadband Connect subsidy scheme caused a halt in this attempt to establish widespread access to broadband.

We estimate that if a wireless (WiMAX) broadband network with extensive coverage of the Eyre Peninsula is established approximately 1,000 to 1,500 services are likely be connected within 12-18 months of establishment. At the level of “per service” subsidy (\$2,500 plus GST) available under ABG the Federal Government would provide \$2.5-3.75 million, based on that take-up, if the network were to be registered under the ABG program.

If the Federal Government was prepared to make a commitment in the order of \$3-3.5million, we are convinced that, with the South Australian Government’s commitment and support, we can find a suitable provider to build and operate a sustainable wireless broadband network that would service the needs of the rural population of Eyre Peninsula for the foreseeable future.

That is, the quantum of funding potentially provided by the ABG program is sufficient to satisfy the project requirements. However, as described above, such a project is not currently viable due to the timescale mechanisms and uncertainty of the ABG.

We therefore ask that you favourably consider our request for a commitment of funds towards the establishment of a wireless broadband network on the Eyre Peninsula.

The following attachments provide some additional background information and an outline of our efforts to date on this matter, which may assist your understanding of the issues and assist in your consideration of our request.

Attachment 1 Additional information and outline of issues and previous efforts

Attachment 2 Indicative OPEL coverage map

Attachment 3 Map showing CCIF-funded microwave backhaul route

ATTACHMENT 1

1. INTRODUCTION

The Eyre Regional Development Board Inc [ERDB] was established in 1993 as the region's key economic agency to assist economic activity and employment in the area of Eyre Peninsula - in simple terms "Developing an Eyre of Prosperity". ERDB is part of a network of regional development boards in South Australia and its primary core funding comes via a resource agreement between State and Local Governments and the Board.

The ERDB has developed a reputation for achieving results through an entrepreneurial and aggressive approach to its provision of practical support to the region's main industries, which include:

- Agriculture
- Fishing and Aquaculture
- Tourism
- Mining
- Manufacturing
- Business Services
- Renewable Energy (emerging industry)

The objectives in preparing this submission:

- To provide a background of the region and the imperative to ensure that the region is "not" part of the 1-2% of Australia left without a terrestrial broadband communications network.
- Outline the history of attempts at securing a Broadband Communications system on the Eyre Peninsula, including the impact of Commonwealth funding programs, and the inability of the region to secure a solution.
- To facilitate the means of providing a solution.

2. BACKGROUND & DEMOGRAPHY OF EYRE PENINSULA

Eyre Peninsula is a largely rural community, triangular in shape and bounded at its corners by the larger cities of Whyalla and Port Lincoln and the town of Ceduna. By way of comparison, the Eyre Peninsula is similar in size to Tasmania, with a population of less than 33,000 (or 54,300 if Whyalla is included). Distances are significant, with highways stretching about 300-400km between each of these main regional centres and much of the population relatively scattered.

The region's economy relies mainly on its agriculture, aquaculture, fishing and tourism industries. While the agricultural and fishing sectors are well established, tourism and aquaculture have developed more recently as major sources of employment and revenue for the community. Whyalla is unique on the peninsula in having a heavy industrial base, focussed on its mining and steel production facilities. It is also separated from the remainder of the peninsula by a strip of low rainfall and lower density farming land. For these reasons, Whyalla tends to be treated as a separate administrative unit, and the majority of the Peninsula population looks to Port Lincoln as the regional hub. For this reason, Whyalla, which is relatively well served for telecommunications services, is excluded from this submission.

In economic terms Eyre Peninsula contains 2.3% of the State's population, but the region has important industries, which produce 33% of the State's grain and 70 % of the State's seafood. Collectively these sectors and the people within the region are extremely industrious and responsible for contributing \$1.75 billion annually to the Australian economy, in mainly export-related industries.

Whilst Eyre Peninsula is generally classified on the Remoteness Index as "remote" (80%) or "very remote" (20%), the region does not see itself as being part of the 1-2% of Australia that will largely rely on satellite technology. The region is a key economic driver, both to the state and the nation, providing important export revenue. Industries such as agriculture, seafood, tourism and mining all require world-class, competitive communications systems to ensure that the industries and individual enterprises are able to continue to compete globally.

Through the deregulation of the agriculture industry, and the transfer of risk in trading to farmers, it is essential that these enterprises have the ability and the tools to monitor world futures markets. At present the region's largest industry is dependant on a system that only provides dial-up internet communications, with speeds generally less than 28 kbps.

Our estimate (based on 2006 census data) is that around 37% of the Eyre Peninsula population currently does not have access to a terrestrial broadband service. This is after the latest round of ADSL enablement by Telstra in November 2007 and represents approximately 12,000 out of a total population of almost 33,000.

These figures indicate the clear gap in the access to metro-comparable broadband communication services and the limitations that causes in the ability to actively grow the social and economic bases of the region.

Eyre Peninsula Population Statistics

Land area (approx.)	55,000 sq. km
Total population	32,870 ¹
Average population density	0.6 persons per sq. km
Main towns (with populations)	Port Lincoln (13,200) Ceduna (2,800) Tumby Bay (1,100) Streaky Bay (1,000) Cleve (700) Cowell (700) Cummins (700) Kimba (700) Wudinna (600) Elliston (400)

3. CURRENT EYRE PENINSULA BROADBAND SITUATION

3.1. History of securing a Broadband Communications system on Eyre Peninsula

The current situation is that the main towns of Eyre Peninsula have ADSL services enabled, which generally allows provision of broadband services to businesses and residences within a radius of about 4-5km from the individual telephone exchanges. This leaves around 11-12,000 (or 33-37%) of the region's population without access to terrestrial broadband services and thus reliant on the inferior satellite broadband services.

The Eyre Regional Development Board Inc (ERDB) has sought to establish a competitive alternative communication network on the Eyre Peninsula over the last four years. However, it has been significantly frustrated by the difficulties of attracting high-level communication services providers in seeking a solution to the region's broadband communications needs, and the constant changes in government funding programs and associated criteria. The structure and criteria of recent funding programs, particularly the current Australian Broadband Guarantee, have made it extremely difficult to develop a business case for the establishment of a core broadband network that has the ability to service the Eyre Peninsula Region of South Australia.

We believe that to develop an effective solution in a region such as Eyre Peninsula there needs to be a partnership between the local communities, the commonwealth and state governments and a telecommunications service provider. To establish a financially sustainable network/service in such a region requires that most or all of the

¹ 2006 Census data, excluding Whyalla

capital cost of establishing towers and a wireless network be subsidised, as well as a significant subsidy towards the cost of individual customer connections.

The ERDB went through a comprehensive demand aggregation process and has since called two open tenders seeking support for the establishment of a competitive alternative broadband communications network for the region. Interest and support was received from communications providers and the South Australian Government supported the process and committed funds. However, the first provider withdrew when it became clear that it could not build and implement the network within the agreed budget, requiring significantly more Government subsidy than had been agreed. The second proposal became unworkable when the previous Broadband Connect subsidy program ended in March 2007.

Following an application to the South Australian Government's Broadband Development Fund the State had initially approved support to the level of almost \$1 million. This funding however was on the condition of successful leverage of funds from relevant Commonwealth Government funding programs.

One recent telecommunications success within the Eyre region is the SA Government project which installed fibre loops around Pt Lincoln, Whyalla and Pt Augusta and a microwave backhaul link from Pt Lincoln to connect into the national fibre routes at Pt Augusta. One of the side benefits envisaged from this \$4.6million project was to provide competitively priced backhaul from the region, which would facilitate the connection of a region-wide broadband network into the national and international telecommunications networks. The Australian Government's former Coordinated Communications Infrastructure Fund provided \$2million towards the project.

The Eyre Peninsula region has been identified in the recently released Engineers Australia "Telecommunications Infrastructure Report Card 2007" as one of three regions in Australia to have the worst level of both fixed and mobile communications infrastructure, along with the Northern Territory, and Far West New South Wales. The report provides a comprehensive report card, by statistical region for each state, with respect to both fixed communication infrastructure and mobile communications systems.

3.2. Commonwealth Programs

The recent history of the Australian Government's Broadband Programs has not been conducive to establishing a whole-of-region broadband communication network on the Eyre Peninsula. The constant changing of Federal Government funding programs from HiBIS to Broadband Connect to Australian Broadband Guarantee (ABG) has made it very difficult for project proponents and providers to plan with any degree of certainty on what are essentially high-risk, marginal projects.

The current structure and criteria of ABG, combined with the lack of certainty regarding funding availability beyond 30 June 2008, are not conducive to the rollout of large-scale networks such as that required for Eyre Peninsula. It has a number of significant impediments including:

- It provides only a “per service” subsidy after the infrastructure is built and services have been connected. There is no “upfront” assistance towards the capital cost of the infrastructure, putting all of the risk on the network builder.
- ABG funding is only currently allocated until the end of the current financial year (i.e. 30 June 2008).
- There is no allocation of ABG funds to an individual project, which is a significant disincentive, when the timeframe to design and build a project is 1-2 years, with no guarantee that the subsidy/funds will still be available when the project is complete and customers’ services are connected.
- The very short timeframe (60 days) within which a provider must begin connecting services once a region has been registered under ABG.

This situation puts all of the risk on the network provider/builder and given that such projects are marginal even with State and Federal Government subsidies, it is not surprising that providers are not prepared to undertake such projects.

The call for proposals under the Broadband Connect Infrastructure Program initially raised some hope for regions such as Eyre Peninsula. However, with the announcement of OPEL (Optus and Elders) as the successful bidder and the indicative OPEL coverage maps local hopes were dashed once again. There is minimal OPEL coverage proposed for Eyre Peninsula beyond Pt Lincoln and Tumby Bay. Subsequent discussions with the OPEL network design team have confirmed that there is little likelihood that this situation will change.

The Commonwealth’s Coordinated Communications Infrastructure Fund (CCIF) provided the region with the ability to secure a high speed microwave system linking Port Augusta and Port Lincoln (see also 3.1 above). This new infrastructure is essentially to service the needs of government departments within the regional centres and key businesses in the CBDs of Port Lincoln, Whyalla and Port Augusta. The new microwave system along the eastern coast line of Eyre Peninsula was built by Silk Telecom, with funding support by both the Commonwealth and State Governments. It establishes a competitive backhaul link out of the region and a very significant side benefit was intended to be the ability to interconnect a regional wireless broadband network cost-effectively to the national and international networks.

4. COMMUNICATION ISSUES FOR EYRE PENINSULA

In most instances regional, rural and remote communities have less access to goods and services, less choice and less consumer information than people in the major cities. The Internet can help to reduce the gap by providing access to goods and services, particularly things such as education, online banking, e-commerce, and access to the whole range of global services and information.

Although the cost of access to dial-up internet services on Eyre Peninsula has greatly improved, with the establishment of local points-of-presence within most communities there are still major gaps in the availability and performance of high-speed broadband services.

Through most of the region there exists a lack of bandwidth and local backhaul and limited access to high-speed broadband services. The distances to local exchanges, particularly for rural farming enterprises generally mean ADSL services are not available and the performance and speeds on dial-up internet services are often very poor.

With the increasing demand for high-speed Internet communication systems across the region as a tool for business, health, educational and social interaction, Eyre Peninsula needs a suitable local distribution network installed to deliver broadband services widely across the region. The general consensus is that a wireless local loop network, using the latest available WiMAX wireless equipment, with wireless local backhaul would provide the best solution. This option could provide many benefits to the region through the delivery of high-speed Internet services that can enable things such as video conferencing as well as providing competitive telephony services.

The greatest benefits would accrue to rural farming families and smaller communities.

5. PROPOSED SOLUTION

The Eyre Regional Development Board seeks an allocation of funds, by the Federal Government towards the construction of an appropriately designed wireless broadband network to cater for the communications needs of the Eyre Peninsula region. This could be by way of a direct funding allocation, or more likely by a revision of the criteria and conditions pertaining to the Australian Broadband Guarantee program, which would enable benefits to flow to other similarly disadvantaged regions. This needs to acknowledge the timeframes involved in the planning and implementation of such networks and the need for certainty in the availability of funds.

The Eyre Regional Development Board would seek to develop a partnership approach, whereby funding from both the Federal and State government are able to be invested in underpinning the development of essential core broadband infrastructure. This would provide the basis and underpinning for a high-level communications provider to build the necessary infrastructure to service the region's rural communities and industry.