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30 June 2008

Broadband Investment Fund submission
ICT Regulatory Team
Ministry of Economic Development
PO Box 1473
Wellington

Email: broadband.investment@med.govt.nz,

Southland District Council Submission to the Ministry of Economic Development relating to *New Zealand's Digital Pathway: A Fast Broadband Future- Broadband Investment Fund: Draft Criteria and Proposed Process.*

Dear Sir/Madam,

Southland District Council thanks the Ministry of Economic Development for the opportunity to submit on matters relating to *New Zealand's Digital Pathway: A Fast Broadband Future- Broadband Investment Fund: Draft Criteria and Proposed Process*.

Southland District Council does not wish to speak to this submission in person, but is willing to informally discuss any aspect of this submission by telephone or email. Venture Southland will provide the necessary technical and network economics input in to the submission process

Submitter's Legal Status

Southland District Council has been in existence since 1989 and was created during the Local Government reforms under the Terms of the Local Government Act 1974 and operate under the terms of the 2002 Local Government Act.

Submitter's Background

Southland District Council has long recognised that an efficient telecommunications service is vital to the well-being and further development of Southland. To this end, the Council has taken a keen interest in how to best ensure that such service is made and maintained, first submitting to the Fletcher inquiry in 2000, and then in 2002 investigating solutions to provide ubiquitous, affordable and universally priced broadband Internet service to Southland. The result of this work is described in the seminal report, "Blazing a Trail to the Information Highway". This report provided a comprehensive roadmap for the engineering and regulatory implementation of ubiquitous broadband Internet service and helped set the scene for the Government's Project PROBE.

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Acting on behalf of Southland District Council, Venture Southland then was able to harness Project PROBE and the NZTE Major Regional Initiative Fund to conduct an open tender and as a result meld a partnership with Woosh Wireless to currently provide affordable broadband service to an estimated 96% of all Southland dwellings.

Key staff within Venture Southland have been actively involved in rural and remote telecommunications activities for some 26 years, including designing, planning and facilitating the development of rural telecommunication networks in Southland and have actively advised on rural and metropolitan network investment in other parts of New Zealand and overseas, including work for the International Telecommunications Union. This submission draws on the wide practical experience of these staff.

Venture Southland staff have taken a keen interest in telecommunications development in Southland and all initiatives in this sector by Government that could assist the region. This has included submitting on the TSO review, preparing network planning documents and engaging with local and national telecommunication network providers. Venture Southland is presently completing a Digital Strategy for Southland, which attempts to identify and promote a pathway for telecommunications investment and development in the region.

The Southland District Council has its offices in Invercargill, outside of the district itself. Currently we have a shared services agreement with Invercargill City Council and through this we are part owners of fibre-optic cable network in Invercargill City. We would like the existing network to be augmented to simplify our own operations, to enhance our dealings with other central and local government agencies and departments, and to improve the telecommunications services to our own ratepayers who use Invercargill facilities.

Southland District Council takes a strong interest in rural telecommunications and endeavours to ensure that our ratepayers enjoy the standard of service they deserve and require.

Southland

Southland District Council and Southland as a whole have led the way nationally in the deployment of broadband service, which has resulted in Southland being the most connected region in New Zealand.

The uptake of broadband connections by the residents in Southland is estimated to be 5% above the national average. Regional coverage of broadband service by the combined suppliers at approximately 96% is also above what would be expected for a largely rural region. This is a significant achievement due largely to the work by Venture Southland and its association with Woosh Wireless. It is also generally recognised that due to the isolation of many rural residents and farm businesses, the uptake in rural areas has generally been higher than in urban areas.

While this is a good result for Southland it does not provide any room for complacency. Other regions with major centres generally find it easier to attract investment from commercial operators and a number of other Councils (such as Christchurch, Wellington, Hamilton and Auckland) are now also playing a more active role in the extension of broadband and Urban Fibre Networks. Southland Councils therefore will need to continue this active role to ensure that the region keeps pace with the other major centres of New Zealand.

Submission

Southland District Council commends the Government for recognising the need for public-good investment in regional telecommunications as set out in the Broadband Investment Fund and addressing the problems in a way that promises to succeed.

Southland District Council remains highly critical of the incumbent telecommunication service providers within New Zealand for their inability to provide affordable services that match the requirements of our businesses and residents. Nonetheless, Southland District Council acknowledges that it is extremely unlikely that the current situation will change to any appreciable amount in the short to medium term and so welcomes the establishment of the fund and the opportunity to subsequently submit a number of deserving projects for funding consideration.

Southland District Council wishes to submit on the following areas of the draft criteria for the fund and the proposed process.

1. Timing

Southland District Council submits that the timing set out on page 11 is likely to be appropriate for many entities, but that the timetable could introduce a delay of up to a year for those submitters, such as Southland District Council, that are ready to seek funding now.

Southland District Council seeks that some flexibility is introduced into the funding programme to fast-track proposals that are ready, or near ready for final funding applications so that construction can begin this calendar year, i.e. allow those regions which have developed business cases to immediately progress straight to full applications.

2. Process

Southland District Council was deeply disappointed with the previous Digital Challenge funding process. In particular, Venture Southland acting on behalf of Southland District Council had invested considerable effort to submit a bid for that fund with the encouragement of the officials managing the fund. As it turned out, these efforts were to no avail and it became clear that any bid we submitted was unlikely to have succeeded. Southland District Council therefore welcomes the present approach of soliciting wider input through this submission process to add that the Broadband Investment Fund will provide a considered outcome for applicants.

Southland District Council believes that the process proposed for the Broadband Investment Fund is acceptable. However, as this process has not yet been tested, Southland District Council seeks to promote the following amendments to the suggested process:

1. At each stage, applicants are advised as early as possible as to the likelihood of their success, and

2. Assessors advise applicants of any perceived shortcomings in their bids, with a view to allowing applicants to revise their bids in order to meet requirements instead of barring them from continuing with the process, in a timely manner to give applicants as much time as possible to carry out any required revision to meet the process timetable.

3. Broadband Investment Fund

It may be that the Broadband Investment Fund may spur the incumbent telecommunications network providers to adopt a useful and affordable business model that make construction of further metropolitan fibre-optic networks unnecessary, which would be an admirable outcome in itself. However, it is unlikely that the incumbents will be in any mood to upgrade rural telecommunications anytime soon. It could be in a year or two that it would be sensible to reallocate the Fund to favour rural telecommunications over further urban investment, should these conditions arise.

Southland District Council seeks that the Broadband Investment Fund should be reviewed annually and, based on demand, reconsider the urban/rural funding allocations remaining in the fund.

4. Eligibility criteria: Urban

1. Public Good

Southland District Council fully endorses that the fund will be spent on partnerships and projects that clearly demonstrate their public-good benefits and contribution to critical investment areas.

To ensure that true public good benefits accrue from the fund, it would be useful for local government to be able to provide technical and other advice in the approval process. It is likely that there would be significant benefit to be achieved by involving local government and technical advisory personnel in the approval process.

Southland District Council seeks that local government involvement and technical advice be included in the approval process.

2. Open access

There are varying definitions of “open access” in theory and practice. Southland District Council argues that “open access” need not be restricted to “ducting and dark fibre level”, as implied on page 3. This would imply that other network providers would be able to haul-in their own cables into ductlines established by the fund. Unlike Telecom New Zealand, who have extensive ductline networks throughout our towns and city, any ductline established through the fund will likely be limited to probably only one or two ducts and will be unlikely to have the flexibility required to accommodate other duct users.

The fund needs to allow that collaborators in a duct and cable network in smaller centres such as Invercargill are able to involve all stakeholders and come to rational, equitable arrangements where part ownership of cables, as opposed to ducts, would be sufficient.

Southland District Council seeks that “open access” is clearly defined in the criteria and allows for local flexibility so that access can be managed to best advantage.

Southland District Council further seeks that would-be users of infrastructure should be required to establish equitable access agreements which allow for multiple user, sensible use opportunities that do not monopolise service provision.

3. Clarification on 'Infrastructure Services'

'Infrastructure Services' is taken to mean dark fibre, ducting and the like. Southland District Council intends to make dark fibre available on an open access basis and only a very limited amount, if any, of Layer 0 (poles and ducts) infrastructure.

The reason for this is that in urban streets it is likely that only a limited number of duct pipes will be able to be installed and so both the ducts and their lay positions constitute a limited resource. Likewise, it is very unlikely that power lines companies would allow more than one telecommunications network operator access to their poles.

Southland District Council seeks that the owner and/or manager of Layer 0 infrastructure will not be penalised for not providing complete open access at Layer 0.

4. Discriminatory Pricing

The network infrastructure owner may wish to subsidise connections to customers for public-good reasons; one such example would be temporarily discounting connection costs to schools to help ensure KnowledgeNET (the Invercargill schools network) can gain a critical mass. It is understood that LOOP type schools in other regions have benefited from discounted, or free connections. Such discounting could be construed to be in conflict with Section A, subsection 3, Wholesale and Open Access Requirements.

Southland District Council seeks that discriminatory pricing be allowed to support public-good services, including school type connections.

5. Positive Cashflow Within Four Years

The draft criteria suggest positive cashflow should be achieved within four years. Southland District Council considers fibre optic infrastructure to be a long term, inter-generational asset although current budget forecasts suggest positive operating profit within four years. It is not clear what the definition of cashflow is; whether it refers to a four year payback period, or a positive free cash flow at four years. A definition of cashflow should be provided. Southland District Council suggests EBITDA (earnings before interest, taxes, depreciation and amortization, and also known as operating cash flow) to be an appropriate standardised measure.

Southland District Council seeks that 'positive cashflow' is replaced with 'positive operating cash flow'.

6. Valuation Methodology

Southland District Council is working with local asset owners and the potential exists for existing assets to be transferred to the ensuing Invercargill network company. The most notable of these assets are the fibre optic-cables in place (which are owned by a number of entities, including the Southern Institute of Technology and local councils) and disused ducting. The ducting primarily consists of gas mains and identifying their historic cost will be difficult and identifying when they were purchased is almost impossible, making the transformation to an inflation adjusted cost very difficult. The preferred valuation methodology would be at replacement cost, discounted for expected refurbishment of the asset.

Southland District Council seeks replacement cost, discounted for refurbishment of the asset should be allowed for valuing infrastructure contributions.

7. In-Kind Contributions

Southland District Council is looking at using existing infrastructure in the city at a nil, or heavily discounted rate. An example of this is access to aerial infrastructure and no rent on the physical location of the Southland Internet Exchange (SIX). Clarification is sought on the valuation methodology that applies to these contributions. It is suggested the annual value of this contribution multiplied by the number of years the agreement is in place should be used.

Southland District Council seeks that the valuation methodology for access to infrastructure assets is clarified and ideally should be (Value of Access x Length of Access Agreement).

8. Government funding

Preparation of Expressions of Interest and bids will require external consultant support for nearly all local territorial authorities, including those such as Southland District Council who have considerable in-house expertise. Funding for such support to develop a full funding proposal should be provided by the Broadband Investment Fund and should not be required to be matched by 1:1 contributions by councils. Consultant support is likely to cost less that $50,000 per submission.

Southland District Council seeks that the Broadband Investment Fund should include appropriate direct funding for consultants to assist local territorial authorities prepare full applications.

9. Fibre to the home as an objective

Southland District Council agrees that the urban connectivity should allow for “equivalent high bandwidth [to fibre optic] technology to the home”, p3. Although fibre to the home is a laudable goal, there will be areas where this is non-commercial from an investment perspective.

In addition, there is much work is underway to improve the bandwidth of existing twisted pair cable, and it is highly likely that commercial solutions to allow existing copper cable networks to support distant 200 Mbps connections will be coming into use within ten years. Indeed, dynamic spectrum management techniques look to provide an evolutionary path towards ubiquitous single-line 500 Mbps customer DSL service via twisted copper pair cable.

Synergies between wireless technologies, such as WiMAX, and PON (Passive Optical fibre Network) have also been reported in the literature and it may well be that wireless rather than fibre-optic cable will eventually provide the most common Internet access for houses, using wireless POPs in streets with fibre-optic backhaul.

Southland District Council seeks that proposals submitted to the fund should allow for a variety of technological possibilities rather than demand only fibre to the home solutions.

10. Priorities to support delivery

Southland District Council agrees that “the priority in urban centres is to support the delivery of high-bandwidth services to businesses, health organisations, tertiary institutions, schools and other public or municipal entities” (p4).

Southland District Council seeks that public libraries and research organisations should also be included specifically in this list. For instance, Invercargill hosts a number of research

projects that do not directly belong to New Zealand tertiary education institutions, but are nonetheless important to the research world and to the Invercargill economy.

For Invercargill, fibre-optic cable to connect sports and cultural venues to a central hub to enable the local and national television networks to broadcast events in and around the city without the requirement to arrange for outside broadcasts units to be sent to Invercargill is seen to be socially and economically beneficial to the community. This should also be seen as one of the priorities of the fund.

11. Co-investment

The minimum co-investment requirement equal, or greater than the Crown's contribution should be able to be relaxed for deserving cases.

Valuation of in-kind contributions set out in Appendix 2 is essentially felt to be reasonable and realistic. However, reallocation of staff time by councils and others to plan networks, let tenders and project manage cable laying should be able to be considered as an "in-kind" contribution at the prevailing rate for consultants and contractors. For example, if a suitably qualified engineer in Southland District Council were to be used to plan the Invercargill network and manage the project, his or her time should be able to be considered as in-kind contribution at the going market rate for telecommunication engineers as he or she could otherwise be used on other projects and a consultant brought in to do this work.

Southland District Council asserts that sufficient capacity within local agencies is essential for the successful execution of these sort of projects and that utilizing local and internal skills is always far better than bringing in consultants, or relying on contractors. The co-investment criterion should reward use of internal expertise and capacity building, not penalise its use.

Southland District Council seeks that all council (including local authority trading enterprises and trusts) contributions be considered part of the financial leveraging considerations.

12. Weightings

It should be noted that 6.2 (d) as it stands will count against almost any Municipal Fibre Network proposal in that Telecom New Zealand and TelstraClear will already have similar infrastructure, albeit unaffordable.

13. Alignment and Integration

Southland District Council fully endorses the requirement for any bids to be aligned and integrated with community, regional and national ICT initiatives, but also seeks that they also be fully integrated and are contained within regional strategies.

14. Aggregated demand

A chief difficulty experienced with the Digital Challenge was the requirement for, essentially, signed-up customers. This was impracticable as it would have been imprudent to sign up customers for a network that may not be funded let alone built. For this reason 7.2(f) p19 needs to allow for projected aggregated demand as well as for actual, committed demand. In particular, it needs to be recognised that it will only be after a Municipal Urban Fibre network is up and running with access to content will businesses have sufficient confidence to request access. This may well be the case for government departments who are perceived as taking cautious approaches, especially those where the IT department is run from Wellington and at a distance from provincial cities such as Invercargill.

Southland District Council points out that government is one of the largest, if not the largest user of telecommunications services in Southland and so it is desirable to encourage all government departments to connect to any urban fibre network established as foundation customers in order to aggregate demand and support the service.

15. Capability

Southland District Council agrees with the requirements in section 8, p19. If anything, Southland District Council believes that the weighting should be increased from 25% as from experience we know that anyone can promise project delivery, but not everyone can deliver projects. There is little point in funding projects that are not going to succeed.

16. Commercial ability and arrangements

Southland District Council notes that high level financial plans are required in final stage bids. Southland District Council observes that commercial rates of return are unlikely to be reached on cable and ducts, noting that such plant normally has design lives of around 40 years. This means that it is extremely unlikely that any urban fibre network project will pay back within 20 years and this should be allowed for in assessing applications.

17. Interconnection

Southland District Council strongly supports the aims of Appendix 1 for interconnection. Southland District Council believes that it should be mandatory for any urban fibre network project to include Internet peering. Furthermore, telecommunications providers that stand to benefit from the Fund should be required to agree to quality of service, interconnect and infrastructure sharing agreements as a minimum eligibility criterion.

5. Eligibility criteria: Rural

Southland District Council supports the Rural Fund, especially as rural industries are major contributors to the Southland economy: 31% of Southlands workforce are engaged in the primary industries and population density is 2.6 people per square kilometres against the national average of 15.

It should be noted that after Telecom New Zealand's cabinetisation programme, only around 75% of Southland's population will have access to DSL2+ service.

It should also be noted that in Southland, Kordia, Woosh Wireless, Vodafone and Telecom New Zealand operate digital microwave radio links for back-haul as well as fibre-optic cables. While the telecommunications network providers are progressively laying further fibre-optic cables to link the towns, at present there is much spare microwave bearer that is available for backhaul. For the smaller routes, in the short to medium term microwave bearer capacity will often be sufficient and a full fibre-optic backhaul would not be warranted, or economic.

Southland District Council believes that the criteria set out for the fund are broadly sound and workable.

18. End-user Connections

Southland District Council is exploring the opportunities for providing improved backhaul services to rural areas without providing direct end user connections. It is envisaged that other providers will provide service to end-users. The Urban Fund makes direct reference to end-users through requirement C3:

"The 5Mbps and 1 Mbps access infrastructure broadband speed coverage. Satellite based projects assessment will not have to comply with the terrestrial based infrastructure speed capability objective, but will have to set out and guarantee the minimum in service access link speeds;"

Southland District Council will not wish to provide service to end-users, but instead enable third parties with access to the infrastructure that would allow them to do so.

Southland District Council seeks clarification on whether projects where Southland District Council does not directly serve end users will be penalised at the assessment stage.

19. Technology neutral

It is not clear what is meant by "technology neutral process", p5. It is highly likely that proprietary solutions, most likely wireless, will be used to provide broadband to sparse rural communities and it would be impracticable to allow for neutral technology for the wireless component. As discussed below, much of the costs are to do with infrastructure rather than technology for wireless systems, so this should not be a major point of contention.

20. Weighting

While any wireless equipment used will almost certainly be proprietary, such equipment will have a book life of less than 5 years and a useful life of less than 10 years: within those periods the equipment will become obsolete. Nonetheless, the infrastructure supporting the wireless equipment, including power, masts, leases, consents and equipment accommodation will have a much longer life and this should be allowed for. Indeed, these items may be viewed as the key benefits. Financial viability may not be practicable, but project viability for rural networks may be.

Southland District Council seeks that the criteria weightings, which put less weight on C5, could be rebalanced so that there is a requirement for "long term project viability" instead of "long term project financial viability". As noted earlier, financial viability should be realistic, allowing for the longevity of outside plant and resultant low internal rates of return.

6. International

Southland District Council notes that a separate process for implementation is being set up for the alternative international fibre optic cable crossing from Australia. Southland District Council is very supportive of this initiative, having for the past five years been advocating for the establishment of an international fibre optic cable to link Australia. Such a cable would provide primary and redundant path connection to global fibre networks which currently terminate in Australia and would also facilitate the establishment of a range of advanced technology and research opportunities in Southland.

Southland District Council seeks and urges that the criteria for assessing bids for that project include route diversity to the South Island and Wellington, noting that presently all international circuits enter New Zealand in Auckland and those circuits to the South Island all pass through Wellington, leaving the South Island vulnerable to natural disasters in Auckland and Wellington.

7. Non-complying bids

Southland District Council believes that the utility of urban fibre networks is greatly enhanced by linking to other urban fibre networks. Incumbent telecommunications network providers take advantage of their near-monopoly, meaning that their trunk networks are unaffordable for public-good networks.

Southland District Council is in discussions with, and supportive of, an initiative to develop a fibre-optic network running the length of the South Island.

Southland District Council seeks and urges that the Fund be available to inter-regional initiatives such as public-good trunk fibre networks.

Further information

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Yours faithfully

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For SOUTHLAND DISTRICT COUNCIL