

Submission to the Ministry of Economic Development  
On the Discussion Document on the  
Telecommunications Services Obligations Regulatory  
Framework

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Northland is the eighth largest region of New Zealand by land area, with the 10<sup>th</sup> largest population out of the 16 regions. It is one of the most rural regions in New Zealand with 48% of its population scattered in rural areas. The greatest concentration of population is Whangarei with other main centres located at Kaitaia, Kaikohe, Dargaville and Kerikeri. Generally the population is concentrated along the East Coast of Northland, with the West Coast being sparsely populated. This means that many of our communities fall into what are generally described as rural areas, with a likelihood of this region having a higher than average number of customers deemed to be commercially non-viable. As a consequence, Northland Regional Council wishes to ensure that any review of the TSO does not adversely impact the citizens of the region.

Northland Regional Council supports a review of the KSO/TSO. Whilst the principle of providing a level of guarantee and price certainty that a basic telephony service will be provided to all citizens, the existing mechanism is flawed nor is it forward looking. Specifically:

- It fails to take into account the growing importance of the requirement for citizens to have broadband internet access, which is arguably more important than the telephone service;
- It does not provide a mechanism to tie industry levies for non-commercially viable customers with corresponding investment in rural areas;
- It is not transparent, that is to say it is unclear how the assessment of non-viability is achieved;
- It does not require investment in rural infrastructure to be made with the levies received by Telecom to service rural customers (currently \$78.3m for 2005-2006);
- It permits CPI based price increases across all customers with no regard technology price reductions or Moore's Law;
- It is not contestable, ruling out the opportunity for alternative technologies or organisations with a different investment profile to compete.

Northland Regional Council submits that the review of the TSO should first confirm what constitutes a minimum requirement for New Zealand citizens, including broadband. The existing TSO specifies dial up internet at speeds of 14.4kbs and this is clearly inappropriate. However we have concerns that attempting to do this within the current review process will not produce a useful result. Northland Regional Council believes it to be more sensible to define a separate broadband TSO/USO and the Government's Digital Strategy refresh would seem to provide a sensible place to do this work. Once this has been defined, the TSO/USO should then facilitate the supply of these minimum requirements using the most appropriate and cost effective means possible. Recognising that a rural broadband and investment strategy is also underway, it would seem logical to

carry out these reviews in parallel rather than as separate consultations as there are significant interdependencies.

We support Local Government New Zealand's proposal for a modified TSO that supports rural infrastructure investment with a regional assessment to determine the extent of the loss making customers.

It should be noted, however, that in making any significant changes to the TSO, Northland Regional Council is equally concerned that the consequences of such changes are carefully considered. Failure to do so might result in adverse and unintended consequences, particularly in the light of recent regulatory changes. Ironically, the ability for the incumbent to cross subsidise less profitable lines through super normal revenues earned from the more profitable areas is gradually being removed since the mandated unbundling of the local loop and proposed introduction of Naked DSL. The risk therefore in making the service contestable is that the incumbent may elect to withdraw investment from rural areas to protect its customer base in areas with greater competition. It is important therefore to ensure that Telecom, who has a natural ability to most economically service rural areas due to the scale of its current infrastructure, should be the supplier of last resort.

*3b How effective has the TSO framework been in achieving the government's telecommunications objective of ensuring the delivery of cost efficient, timely, and innovative telecommunications services on an ongoing, fair and equitable basis to all existing and potential users?*

3b Northland Regional Council does not believe that the TSO has been particularly effective in delivering the Government's telecommunications objective. It has not encouraged cost efficiency by the incumbent as it has been allowed to increase prices in line with CPI without regard to the true cost of delivering that service. Nor has it encouraged innovation, with the existing TSO encouraging existing assets to be sweated rather than the introduction of new technology and new services. It could even be argued that it is far from fair as it has allowed the incumbent to not only cross subsidise less profitable customers with highly profitable ones, but in addition to levy other industry players by way of compensation for those deemed to be commercially non-viable.

*3c Would other policy mechanisms be more appropriate than TSO instruments to achieving the government's telecommunications objective going forward?*

3c It may be more appropriate for the Government, rather than industry to take ownership of any subsidies for rural telecommunications services. There have been a number of interventions in the past, and others that are being considered as part of the Rural Broadband Strategy. However it should be noted that first, Government needs to determine what it considers to be a basic telecommunications service and that this definition be forward looking and technology neutral.

*3d What are the strengths and weaknesses of the TSO framework?*

3d The TSO framework has a number of weaknesses, however probably the most important is the lack of transparency. Levies received by the incumbent for the provision of rural services are not required to be invested in rural infrastructure. The perception of "free" local calling further hides the true cost of providing the service.

*4a How does the Local Service TSO contribute to advancing the interests of telecommunications users?*

4a The Local Service TSO has played a part in ensuring that the teledensity of New Zealand is in line with other developed nations. In 2001, New Zealand was ranked 8<sup>th</sup> out of 15 High Income countries <sup>1</sup>. However it has not contributed to advancing the interests of telecommunications users for future looking services, specifically broadband. It would be fair to say that without the Government \$48m intervention via Project PROBE, broadband services in rural New Zealand would be even further behind.

*4b Would the universal availability and affordability of local residential telephone service for households be better achieved another way?*

4b It is highly likely that a one-size fits all approach does not suit New Zealand's unique geographic terrain. With changes in technology, the provision of wireless (fixed and mobile) or satellite from other suppliers may well prove more cost effective than the

<sup>1</sup> NZ ICT Infrastructure Gap Analysis prepared by AVA

incumbent's network. Consideration should be given to rural subsidies based on need, for access to a defined range of services.

The issue of affordability is also questionable. The MED May 2007 benchmarking report places New Zealand prices in the fourth quartile for all types of residential phone line user. For medium use, best score is 22 out of 30 (TelstraClear) with most Telecom user plans ranging from 28 out of 30.

**4c** *What should be the focus of the Local Service TSO going forward?*

4c It is essential that the Local Service TSO takes into account the importance of broadband for economic and social development. Arguably, access to broadband is more important than access to a telephone service. With broadband, voice over internet protocol enables telephony service to be delivered without the need for a phone line. However, it essential that minimum service levels are clearly defined (e.g. service reliability levels, access to emergency services) and that any supplier receiving a subsidy is audited against these.

**5a** *Does the Local Service TSO effectively addresses gaps in the commercial market for the availability of telephone service?*

5a No, outside the main centres, it has not been economically viable to duplicate infrastructure to provide a telephony service and the TSO, by imposing free local calls makes it even less attractive to potential new entrants. This is particularly true for Northland with presently only Whangarei having competition through CallPlus launching a Wireless Service. A commercial market can be achieved through alternative means, including effective wholesale and resale agreements, however the TSO has not assisted in providing these either.

**5b** *Should the Local Service TSO requirements for service availability be retained?*

**5c** *Should geographic coverage requirements for the supply of TSO local service is extended to cover areas currently outside the TSO and why?*

5c The existing service availability should be retained. Consideration should be given to the supply of alternative technologies, particularly for broadband for remote areas. Since the introduction of the IPStar, satellite services have greatly improved in performance and reduced in price in recent years.

**5d** *Should the existing service performance measures be expanded, including down to geographic regional level, to better ensure reliability of telephone service? If so, what measures are recommended and why?*

**5e** *Are there service measures which would better represent the aspects of service performance which are of most importance to users?*

5e The performance of the telephone network as defined in the current TSO is adequate. Far greater performance issues exist with the provision of fast broadband services. It would be preferable to have technology agnostic service levels that would permit the delivery of telephone service through alternative technologies (e.g. wireless or satellite) in rural areas. For broadband services, peak and average performance speeds should be defined.

*5f Should penalty performance rebates apply for non-compliance by the Local Service TSO Provider?*

5f Yes, if the provider is being paid to provide a service.

*5g Should there be reporting on the quality and capacity of network capabilities for supplying TSO local service?*

5g Yes. This will become increasingly important as the NEAX exchanges near the end of their useful life and broadband services become more essential.

*5h Should information about TSO local telephone service supplied in commercially non-viable areas be made publicly available by the TSO provider as part of its TSO requirements? If so, why?*

5h Yes. This will provide transparency and ensure that the services supplied are being provided in the most cost effective way, regardless of technology deployed.

*5i Should the gateway devices installed in customer's homes to support the supply of telephone service be required to have battery back-up? If so, why, and should there be a requirement that battery back-up last for a specified period?*

*5j Should a requirement for battery back-up only apply for residential customers living in areas outside mobile cellular phone coverage?*

*5k Should battery back-up requirements be equally applicable across all providers (TSO and non-TSO) of telephone access services and if so, should any requirements be prescribed by regulation?*

5h The issue of availability of service during power outages is not straightforward with changing technology. In many rural areas, particularly in Northland, power outages are a fact of life; residents are aware that cordless phones do not function. Some people in remote areas may have generators, whereas others chose to invest in Uninterruptible Power Supplies (UPSs) if they consider it important to retain power during short outages. The selection of customer premises equipment has for many years been left up to the user to decide. Presumably a built battery back-up will carry a price premium and provided it is made clear to users they the alternatives available, the users should decide.

*5l Should dial-up internet access be discontinued for TSO local service if a bit stream equivalent (i.e. NGN version) is supplied as a replacement?*

5l Dial up should be the service of last resort.

*5m Do you have any concerns about aspects of Telecom's planned NGN local service?*

5m Not that relate to the TSO. It should however be noted elsewhere in the world, introduction of an NGN has reduced costs for the incumbent, not increased them.

*6a Should the status quo prevail for setting the TSO charge compensating the Local Service TSO Provider for meeting TSO requirements?*

6a It could be argued that the incumbent is already compensating itself for meeting TSO requirements by cross subsidising super normal profits from commercially viable areas. A further compensation should therefore not required.

*6b If the TSO charge is to remain an unspecified amount, should the prescribed methodology for calculating the TSO charge be changed?*

*6c Should a specified amount TSO charge be applied for the Local Service TSO?*

*6d How should any such "specified amount" TSO charge be structured? Should there be fixed charge and variable charge components?*

*6e Should a TSO Charge of specified amount be linked to the Communications Producer Price Index (PPI) as a proxy cost standard for the telecommunications industry?*

6b-e There is inherent risk in developing a fixed formula that fails to take into account changing technology or uses hypothetical costs without recognising the long run incremental costs that benefit the incumbent. Furthermore, any specified charge levied to provide services to commercially non-viable customers should be tied in to a requirement to invest in infrastructure used to deliver those services. As a minimum, the calculation of the TSO should be transparent across all customers. In addition, consideration should be given to providers of voice calls made over the internet that rely on broadband access, such as Skype, and whether they should be required to contribute to the cost of the TSO.

*6f Should the TSO Charge for Local Service be abolished?*

*6g What importance do you place on the merits and risks outlined for abolishing the TSO charge?*

6g There are risks in abolishing the TSO, without ensuring that adequate thought has been given to how services might be provided to rural areas. Northland Regional Council supports the Local Government New Zealand's proposal for a modified TSO, which includes an independent regional assessment.

*6h What importance do you place on the merits and risks outlined above for contestability in compensating the Local Service TSO Provider?*

*6i Do you agree that contestability can only be expected to bring net benefits in areas which are commercially non-viable?*

*6j What form of contestability would best achieve the service objectives*

*6k How should investment be linked to compensation of the TSO Provider for local telephone service?*

*6l What TSO requirements should be added to prevent the deferral of investment for capability renewal by the Local service TSO provider?*

*6m Should a special fund be established for capability renewal of the networks supplying TSO local service?*

6h-m Northland Regional Council supports the Local Government New Zealand's proposal for a modified TSO, which includes an independent regional assessment.

- 7a *Should eligibility for TSO local telephone service be confined to purely residential use?*
- 7b *What are the merits of establishing a 'hybrid telephone service option' for home business use where a business is co-sited with a household in residential premises?*
- 7c *Should the incremental revenue for such a new TSO local service be channelled into investment in rural network infrastructure?*
- 7d *What are the merits of applying such an option to all home business premises as opposed to confining the application to only those home business premises located in a rural area as defined by Statistics New Zealand rural definition?*

7a-d The issue of the TSO being a purely residential instrument raises one of fairness, given the large number of small businesses, particularly in rural areas, that operate from home. In Northland, the average size per business unit is 3.2 (Far North), 2.4 (Kaipara) with 4.0 in Whangarei<sup>2</sup>, and the provision of telephone and internet service is as important for a business as for a residential user. If anything, the TSO should be expanded as the incremental cost of providing service to businesses in low density areas should already be factored in the network deployment costs.

- 7e *Should the CPI price cap be retained for commercially non-viable areas?*
- 7f *Should the CPI price cap be retained for commercially viable areas where there is not yet full and effective competition?*
- 7g *Should the price cap for commercially viable areas be removed where there is full competition?*
- 7h *Should the retail charge for residential local telephone service continue to be capped through the Local service TSO deed?*
- 7i *Should retail prices be controlled outside the TSO framework through regulations made under the Telecommunication Act?*
- 7j *Should another policy mechanism be used to cap the price of residential telephone service?*

7e-j CPI, as an indicator is inappropriate for the technology sector, particularly as Moore's Law states that computing performance doubles and the cost halves every two years. Using this as an indicator, we would have expected to see that over the past 12 years, in commercially viable areas with or without competition, there not only be no need for any price increase but improved services such as fast internet as a result. To some extent this is already happening, as in areas where there is competition, such as Wellington and Christchurch, line rentals are less than they are elsewhere. In Northland, where there is no competition, a price cap should be retained. If CPI was used as a proxy, the balance required for non-commercially viable customers, having been identified through a more transparent process should be funded through subsidies.

- 7k *Do you agree with the factors listed for setting the retail price cap for local service? What is missing? What weight should be given to each?*
- 7l *Does the option of free local calling for residential customer's present difficulties for development and growth of the broadband market?*

7l Free local calling distorts the market and further creates a lack of transparency. Local calls are not provided free of charge, they are built into the residential line rental. In urban areas, hundreds of thousands of residential and business customers can make calls to each other for no charge whereas in rural areas, free calling zones

<sup>2</sup> Statistics New Zealand 2005 data

are restricted to several thousand phone numbers only. Rural residential users therefore already pay more for their line rental than their urban counterparts through the number of toll calls they are required to make. The continuation for free internet access through dial up services is a further disincentive for residential users to migrate to high speed online broadband services.

- 7m Should retail line rentals for local telephone service be aligned with the degree of geographic de-averaging applied for pricing regulated wholesale services?*
- 7n Should prices for local telephone service supplied in rural areas be rebalanced (to align prices closer to cost) more aggressively than the rate of CPI change?*
- 7o How should any detrimental impact on the consumer affordability of local service due to price de-averaging be addressed?*
- 7p Should the upfront charges for establishing telephone access connections be covered by the TSO requirements*

7m-p There is a risk associated with geographic de-averaging, particularly when alternative technologies are not considered as part of the mix. This should not be done in isolation, and should form part of the independent assessment of rural areas proposed by Local Government New Zealand. Up front charges for establishing telephone access are, in many circumstances, already recovered by Telecom New Zealand.

- 8a Should the gatekeeper role be performed by a government or non-government organisation and why?*
- 8b Should the gatekeeper role continue to be performed under the Local Service TSO or be a new TSO instrument?*
- 8c Should all providers of telephone service in New Zealand be required to establish and maintain capability to identify caller location for emergency calls sourced by their subscribers?*

8a-c Northland Regional Council believes that all network operators, regardless of technology should provide access to emergency services. Each operator should be required to provide the minimum call information required to identify the caller location. The service should be provided through the most appropriate organisation to deliver the function, which is likely to be a contractual arrangement with a non-government organisation.

- 8d How should requirements for call information be phased in? Should they apply equally to both legacy telephone networks and next generation telephone networks?*
- 8e Should the cost for establishing and maintaining call information capability for public telephone networks in New Zealand be borne by the carriers operating those networks?*
- 8f How should minimum standards be set for the supply of call information? By invoking reserve regulation making powers and/or by an industry code of practice?*
- 8g Should requirements for the quality and reliability of emergency call services be prescribed to apply uniformly across the telecommunications industry (TSO service and non-TSO service)?*
- 8h Should the requirements for conveyance of emergency calls be prescribed through regulations under the Telecommunications Act, through an enforceable industry code of practice, or a combination of both?*
- 8i Should all telephone service providers in New Zealand (including those facilitating telephone calling through Internet access) be required to offer their subscribers the ability to make emergency calls?*

- 8j *Should access lines be kept in an active state after service is relinquished to enable lifeline calls to be made?*
- 8k *Should the supply of such lifeline connection be compulsory for all operators of public fixed telephone networks, irrespective of whether telephone access is by an analogue line or a VoIP bitstream on a digital line?*
- 8l *Should this requirement be applicable to only cable (wire or fibre) fixed lines that reticulate dwellings and premises?*

8d-l It is recommended that the Telecommunications Carrier Forum be tasked with developing an industry code of practise that defines a minimum set of standards for emergency call information, regardless of technology and line type. This should apply to legacy networks, fixed and mobile wireless networks, and next generation networks. Geographical numbering may well be replaced with some other form of Internet Protocol based numbering schema (e.g. ENUM) but it will be for industry to determine the most appropriate method. Whilst it may not be possible to impose standards on suppliers offering services over the internet, attempts should be made to encourage them to comply with the industry code of practice.

- 9a *Taking into account likely broadband user requirements in 3-5 years time, what do you consider will be the key broadband applications (e.g. email, web browsing etc) for businesses and households?*

9a There is ample evidence that New Zealand lags behind in the adoption of fast broadband and it is equally apparent that the speed of existing services are a major constraint. It is inappropriate to ask what the most likely applications will be in 3-5 years time when technology is changing so fast. Already we are seeing, through the availability of the Kiwi Advanced Research Network, major shifts in certain sectors, for example simultaneous translation of classes into sign language for blind students delivered through the network. We cannot dream what might be possible and we are only limited by our imagination.

- 9b *To what extent do you consider that the market will meet the broadband needs of rural users (including availability and affordability) in the next five years?*

9b Given the track record of investment over the past 10 years, it is highly unlikely that the market will meet the fast broadband requirements for rural users in the next five years. There are issues associated with regional backhaul, length of copper runs in rural areas and the investment profile that commercial operators are seeking. These are outside the scope of the TSO review.

- 9c *Do you consider there is a case for subsidy mechanisms to fund upgrading of rural broadband infrastructure, and if so, what mechanisms should or should not be considered, and why?*

9c Northland Regional Council believes that there is a strong case for subsidy mechanism to fund the upgrading of rural infrastructure. This would not only deliver against the government's Digital Strategy, but also over time, enable TSO costs to non-viable customers to be reduced.

*9d What role do you think the TSO framework should have in accelerating the uptake of broadband access for New Zealand homes?*

9d The TSO should define the minimum standard for broadband services and minimum service level agreements for end users. The issue of funding should be dealt with separately.

*9e How are these rules above for considering a broadband USO relevant to New Zealand?*

*9f Are there other factors that need to be considered for a Broadband TSO?*

*9g Should for the TSO Provider for any broadband TSO be selected on a contestable basis?*

9e-g Northland Regional Council considers the TSO framework will be insufficient for the substantial task required to accelerate the update of broadband access in New Zealand homes. Uptake is driven by demand, availability and affordability and while the TSO may play a part, it is likely that additional intervention is required. This may include demand stimulation, targeted investment as well as rural subsidies. A one size fits all solution is unlikely to be successful and we support the Local Government New Zealand views that local solutions are required for local issues. We further support their view that a holistic approach is required for a national framework to ensure interoperability and efficiency.

*9h Do you agree with these suggested guiding principles?*

*9i Are there other factors which need to be consideration in shaping TSO requirements?*

9i Consideration needs to be given as to a single TSO that encompasses telephone and broadband services or whether they should be treated as separate. Logically, there would appear to be economies of scale in a single instrument, particularly in the light of the transition from legacy telephone services into Internet Protocol telephony services. In the fullness of time, they would no doubt be one and the same. However there may be merit in having a separate telephone and broadband TSO in the interim, that is reviewed on a 3-year basis during this period of transition.

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- 10a *Should the Commerce Commission retain responsibility for calculating the TSO charges for TSO instruments containing charging rates of specified amount?*
- 10b *What type of organisations should be considered to perform such a role going forward?*
- 10c *Should responsibility for making TSO determinations which calculate TSO charges of specified amount be separated from the Commerce Commission?*
- 10d *Should responsibility for allocating TSO charges over the industry be separated from the Commerce Commission?*
- 10e *Does a trust fund arrangement have merit? Who would be appropriate to operate such a trust fund?*
- 10f *Should an interim TSO levy be applied for compensating TSO Providers in advance of reconciliation and final payments?*
- 10g *Should such an interim payment arrangement for TSO levies be on a similar basis to the industry levy for recovering the Commerce Commission telecommunications regulatory cost?*
- 10h *Should a standard practice apply for extending the duration of TSO instruments?*
- 10i *Should TSO instruments automatically expire after a specific period?*
- 10j *How frequently should TSO instruments be reviewed?*
- 10k *Should a single organisational unit of Telecom have accountability for all TSO functions? What Telecom business unit should this be?*
- 10l *How should responsibility for the various TSO functions identified be allocated across the Telecom Group?*
- 10m *How should costs and revenues for TSO service requirements, which Telecom fulfils as TSO Provider, be allocated across the Telecom Group?*
- 10n *How should the cost of TSO levies paid by the Telecom Group be allocated across Telecom business units?*
- 10o *Should provision be made in the TSO regulatory framework for establishing a "Standard TSO Instrument" to save multiple determinations against the same general TSO terms and conditions*

10. These questions are probably best left to experts to respond. However Northland Regional Council notes that the cost and complexity of the Commerce Commission calculating the TSO obligation costs on a hypothetical basis seem unwieldy. A more simple approach would appear to be to determine the true cost of providing services in commercially non viable areas and using a fund from general taxation to cover the shortfall of providing services. The money saved by the Commerce Commission and in administration would go a long way to cover the costs. Furthermore, if Government adopted a policy of stimulating the rapid deployment of fibre infrastructure particularly in the regions, the need to provide a TSO instrument for commercially non-viable customers may reduce dramatically over time or eventually disappear. In providing high speed broadband over fibre networks, telephony services will be delivered on this new infrastructure, rather than legacy copper networks that are costly to maintain.