Feedback on discussion paper: Towards the first National Infrastructure Plan

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Introduction

TUANZ represents several hundred end-users of telecommunications, most of them being large businesses or organisations who are strongly dependent on modern, efficient and competitive telecommunications. Therefore TUANZ has a strong interested in the development of infrastructure in the telecommunications sector. In particular we have been instrumental in driving the movement for a national fibre to the home network and remain extremely committed to this being expedited in a timely and cost-effective manner. We believe it will deliver enormous returns for New Zealand through enhanced business productivity, better health and education outcomes, and environmental sustainability.

In response to this paper, TUANZ has highlighted per chapter areas we believe more detail is required or where issues have been oversimplified or overlooked. We have also inserted comments and suggestions on particular points raised in the document and endeavoured to expand the overall discussion towards developing the National Infrastructure Plan.

Strategic Direction (para 12 to 15)

TUANZ is pleased to note that broadband is regarded as an immediate priority in the National Infrastructure Plan, alongside roads of national significance, electricity transmission and the Rugby World Cup 2011.

TUANZ believes the priority given to broadband development is particularly appropriate as a next-generation broadband network will undoubtedly form the backbone of New Zealand's 21st Century digital economy. It will prove to be as important over the next half century as roads and railwaysd were in earlier times.

Therefore, development of such a broadband network certainly falls well within the goals of the National Infrastructure Plan to focus on physical infrastructure of national significance that has a direct impact on productivity and living standards.

Role of Markets and Government (para 49/50)

TUANZ agrees with Principle 1f of the plan that telecommunications is a market-based system and that it should remain as such. TUANZ also agrees with the Government's assessment that the roll-out of fast broadband has not been fast enough, and welcomes its commitment to inject $1.5 billion in developing an ultra-fast broadband network.

It should also be noted that telecommunications, like other network-based utility industries, requires a relatively heavy regulatory overlay to ensure competitive outcomes.

In addition, TUANZ support the Government's effort to attract additional investment from the private sector for broadband projects through its Broadband Investment Initiative.

Government Services (Principle 2b)

TUANZ accepts that fair and reasonable user-charges should be applied for telecommunications service to fund and encourage ongoing investment in this infrastructure.

Telecommunications Background and history (para233 to 236)

TUANZ finds the overview of the background and history of the telecommunications industry in the discussion paper superficial and Telecom-centric. For instance the statement that since telecommunications was fully opened to competition in 1989 "any entity with at least 10 customers" has been able to register as a network operator is simplistic. This does not take into account the true barriers of entry and challenges newcomers face in the market and belies the market domination Telecom wielded until at least local loop unbundling in 2006 and operational separation in 2008.

TUANZ trusts a more balanced overview of this market will be applied in making final decisions on investment in telecommunications infrastructure.

Commercial investment in telecommunications (para 237 to 239)

The assessment that telecommunications assets are more scalable than those in other infrastructure sectors is accurate.

TUANZ believes infrastructure such as ducting, as well as infrastructure for other services such as power transmission and water supply, should also be regarded as essential elements of the broader national telecommunications infrastructure.

Government investment in the basic underlying infrastructure, such as ducting, through which the scalable active layer of telecommunications infrastructure, such as fibre optic cable, can be deployed by both the public and private sector, will be a crucial stimulant for the development of this infrastructure as a national asset.

Capital expenditure (para 240/241)

This chart is misleading due to the short time scale – it should go back at least 10 years. It will then show that overall investment levels increased substantially following the introduction of improved regulatory regime enabled by the Telecommunications Amendment Act of 2006.

The assessment that much of the reported investment telecommunications infrastructure, by Telecom in particular, was merely replacement of existing capital assets and did not add to the net stock of telecommunications infrastructure, is misleading. This does not take into account the new XT mobile network or the 2degrees Mobile network. These are both examples of new infrastructure.

Mobile Connections versus Fixed Line Connections (para 242)

The figures on mobile connections do not take into account the number of users who have multiple connections/SIM cards. Therefore, mobile usage may not have grown to the same extent as the number of connections. Arguably the days when per capita penetration can be regarded as a barometer of the state of the mobile market are over – volume of use measured in call minutes, total revenues, or ARPU (average revenue per user) provide much better comparisons of market health.

Broadband Coverage (para 243)

TUANZ contests the claim that broadband coverage is universal. Some of the alternatives to fixed-line DSL broadband do not provide the same level of performance. For instance, while satellite provides users in more remote areas with a very welcome medium-term improvement on dial-up, it is inherently inferior due to latency, which restricts the use of software-as-a-service or cloud computing services and other applications. There is no way satellite can be considered an adequate alternative to fibre.

TelstraClear hybrid fibre-coaxial (HFC) cable (para 245)

It should be noted that only parts of Christchurch has access to TelstraClear's HFC cable. TUANZ does not regard cable as the technology of the future, as required in the Government's broadband policy.

Kiwi Share (para 246)

The Kiwi Share has not changed materially since 1990 and has been under review by Government since January 2007. An overhaul of this scheme will be an essential component of the implementation of the National Infrastructure Plan.

Major Infrastructure Assets (para 247)

This section needs expansion – it is a very superficial assessment of the market.

Commerce Commission (para 249)

It should be noted that the Telecommunications Commissioner has the right to make determinations on price and non-price terms for a range of designated services provided not only by Telecom to competitors, but by other providers as well. An example of this is mobile termination rates, which are currently the subject of possible regulation.

Funding and Pricing (para 250)

TUANZ does not agree with the assessment that New Zealand's broadband pricing is highly competitive. These benchmarking exercises provide an unbalanced view as they do not take into account data caps, which are non-existent or far larger in other in other OECD countries, New Zealand and Australia excepted. These have a profound impact on the real cost of connectivity and are a huge distortion to the prices.

Planning (para 251)

This comment does not take into account the Government's commitment to invest $1.5 billion in rolling out a fibre network, totally changes the planning incentives for market participants.

The relationship between investment in ICT and growth (para 253 – 257)

TUANZ agrees there is a very strong link between investment in ICT and economic growth.

It should also be noted that the more isolated a country, the more it has to gain from high quality ICT and more to lose from poor ICT.

Therefore TUANZ considers a next-generation ultra-fast broadband network as an essential component in the country's national infrastructure that will underpin future economic development. TUANZ believes such a network will enable the effective use of ICT and thereby boost overall productivity. In addition, TUANZ sees a 21st Century digital architecture as a stimulus for economic activity, as it will attract investment and will enable New Zealand businesses to access off-shore markets more readily.

Convergence of telecommunications, IT and broadcasting (para 318)

Many other economies are bringing together the regulation of telecommunications and broadcasting, or are looking to do so. Increasingly traditional broadcast content is being delivered over the internet and this trend will accelerate exponentially with the roll-out of ultra-fast broadband networks. The IT industry is competing with the consumer electronics industry to provide home entertainment for the future. It would be prudent for the Government to implement a united regulatory framework for telecommunications and

broadcasting to ensure effective regulation of these services – Australia may provide a useful model in this regard.

Chorus cabinetisation rollout (para 320)

It should be noted that there are some issues around the compatibility of this investment with the Government's planned fibre rollout. Chorus's commitment to cabinetisation pre-dates the government's commitment to fibre to the premises. Telecom's fibre to the node architecture may not be the optimal solution in this new environment. TUANZ believes all existing infrastructure should be taken into account in the Government's broadband investment plan.

Broadband Investment Initiative (para 323)

This section needs updating to reflect the Government's recently announced $300-million plan for rural broadband, which will form an essential part of any national broadband infrastructure.

Regulatory Issues (para 335 to 337)

TUANZ supports that the Infrastructure Plan will have a particular focus on identifying and reducing existing hurdles to investment in infrastructure.

However TUANZ believes that strong regulation of the telecommunications has over the past decade delivered a far more competitive market and as a result has stimulated great investment in this sector.

We support the progressive removal of regulation that has proved redundant, but caution strongly against any ideological anti-regulatory bias. Regulation, well implemented and administered, can be an incentive to investment, just as the absence of regulation can be a deterrent to investment as New Zealand saw during the 1990-2005 period.

Resource Management Act (para 338 to 344)

TUANZ supports common-sense reforms to the Resource Management Act that would streamline processes for infrastructure development and encourage economic growth. One example of a reform that would help the telecommunications service is a national standard for cellular phone towers that provides a fair balance between the needs to provide efficient services and cater for a growing market, and the avoidance of undue visual pollution. A second would be greater clarity and standardisation of provisions for running fibre along existing overhead pole corridors.

Telecommunications in the cross-sectoral context

TUANZ proposes that the National Infrastructure Plan should take into account the impact investment in telecommunications infrastructure can have on all other infrastructure categories in the plan.

TUANZ envisions a next-generation communications infrastructure as impacting other infrastructure sectors as follows:

Transport: Next-generation telecommunications can serve as an alternative to physical travel and therefore has the potential to reduce pressure on transportation infrastructure. Ultra-fast broadband will enable a host of technologies that can be harnessed to displace physical travel. This includes telepresence (next-generation, high-definition video conferencing) that mitigates the need for face-to-face meetings, cloud computing enabling remote working as employees can access the same corporate systems they would have at their desks from anywhere, e-commerce that negates the need for transactions to take place though physical interaction, remote service delivery including education, healthcare, monitoring and court appearances.

Healthcare: Next-generation communications infrastructure can drive great efficiencies in the delivery of healthcare. It will enable access to centralised medical record from anywhere, the delivery of remote healthcare services where specialist can use high definition video links to diagnose or assist in the treatment of patients across the country or world from a single location, and remote monitoring of patients enabling most effective use of prevention treatments and homecare services. It can also provide "smart home" technology that will allow elderly people to live safely in their own homes for longer before moving to rest homes, at enormous economic and social benefit in the context of an aging population.

Education: Ultra-fast connectivity to schools has the potential to deliver great benefits for learning outcomes. It will open Kiwi classrooms to the world in a way never before possible. Distance will no longer be an obstacle to New Zealand children having access to the most up-to-date information and collaborating with peers and educators from across the world. Subject matter experts will be able to beam into any classroom in New Zealand from anywhere in the world and interact with student as if they were physically present, a facility that will have a major benefit to smaller rural schools.

Power transmission: A telecommunications infrastructure linked to all stages of power transmission will greatly increase efficiency in this sector by enabling network managers to have a real-time view of the entire power transmission network. Smart metering and micro-monitoring linked to central management centre will provide real-time data enabling the effective delivery of this utility. Smart grids will allow consumers to receive real-time notification of changing prices for electricity and respond by remotely adjusting their usage – for example, by turning an appliance off or changing the temperature setting on a fridge or freezer briefly during a period of short-term high demand.

Irrigation: Telecommunications will enable real-time micro-management and monitoring of irrigation needs across the country ensuring the most economically-efficient usage of water resources and delivery of soil nutrients, assessed hour by hour rather than monthly or annually as at present.

Planning for Applications: As part of implementing a National Infrastructure Plan, it will also be incumbent on the Government to play a leading role in driving uptake of the potential applications ICT and ultra-fast broadband across all sectors so that the vast range of applications the new network will enable start to become available concurrently with the roll-out of the network.

Conclusion

TUANZ strongly supports the development of the National Infrastructure Plan, and recognises the potential of such a plan to coordinate investment in national infrastructure and to support economic development for the benefit of all New Zealanders.

TUANZ absolutely regards telecommunications infrastructure as being of national importance, particularly a next-generation broadband network as it will undoubtedly underpin New Zealand's economic development in the 21st Century.

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