

Digicel

The Bigger, Better Network.



DIGICEL (PNG) LIMITED

Submission to NICTA

**Public inquiry into the need for a Retail Services Determination
(RSD) regarding certain mobile telephony services**

Friday, 16 December 2011.

*This submission is provided to NICTA for the purpose of the current public
inquiry only and for no other purpose*

1 Executive Summary

1 Digicel welcomes this opportunity to provide its initial views in relation to the Public Inquiry into the need for a Retail Service Determination regarding certain mobile telephony services (**Inquiry**) and to provide its response to the issues raised in the Discussion Paper issued by NICTA on 17 November 2011 (**Discussion Paper**).

2 NICTA's decision to hold a public inquiry into retail regulation of mobile services is unjustified and is not supported by any cogent or convincing evidence and analysis. It sets a dangerous precedent and will be harmful to investment in mobile infrastructure in Papua New Guinea unless NICTA ceases this inquiry. Regulatory intervention in the pricing of retail services is a very serious matter and can have significant downstream impacts on investment, innovation and competition. This is particularly the case in markets that are already subject to competition and where entry has been relatively recent, i.e. markets are still growing and developing, as is the case in Papua New Guinea.

3 Importantly, there is overwhelming evidence that the recent liberalisation of the Papua New Guinea telecommunications sector has been successful thus far and that Digicel in particular has brought very significant benefits to Papua New Guinea.

4 If NICTA recommends a RSD:

- it will impose unavoidable long-term harm to Papua New Guinea's mobile industry; and
- it will undermine the mobile industry's contribution "to the long-term economic and social development of Papua New Guinea's economic development",

and therefore undermine the objective in section 2 of the Act.

5 Digicel submits that in the light of the overwhelming evidence that the liberalisation of the telecommunications sector is working and the benefits that have arisen as a result of Digicel's investment in Papua New Guinea that NICTA should have undertaken a much more robust analysis before launching its inquiry. The Discussion Paper provides no basis for an inquiry, much less any actual regulatory intervention by NICTA. Digicel submits that NICTA should terminate this Inquiry before further costs are incurred and further harm is caused to the industry and the development of the telecommunications sector. It is not too late for NICTA to halt the harm being done now by deciding that a retail services determination ("RSD") is wholly inappropriate in the context of the provision of mobile services.

6 Digicel has serious concerns about the quality of NICTA's analysis, not least in it defining the market as limited to off-net calls and SMS because:

- (a) NICTA's market definition analysis is fundamentally flawed and does not follow an internationally accepted methodology;

- (b) NICTA's view that there is a separate market for off-net calls and SMS is unprecedented anywhere in the world;
 - (c) There is no evidence that mobile market definition in Papua New Guinea should be different that used by regulators in other countries; and
 - (d) NICTA's flawed market definition means that all of their subsequent analysis and that depends on this definition is invalid.
- 7 Of serious concern to Digicel is that the basis of this Inquiry is an apparent attempt by NICTA to make a finding with respect to whether or not Digicel has established prices that are "*an abuse of a dominant position*"¹. It appears to be NICTA's position that an RSD can be justified solely on the basis of a finding by NICTA that there has been an "abuse" of market power. However, there is no power under the Act for NICTA to enquire into such a matter. In particular, it is not part of the Retail Regulation Criteria ("RRC") that NICTA must satisfy prior to recommending a retail service determination to the Minister. Efforts to undertake this irrelevant exercise are costly and will in likelihood result in misleading outcomes that will do nothing to further the development of the industry and cannot lawfully be used as a basis for recommending an RSD. Even the conjecture that will no doubt flow from such a line of enquiry will have potentially damaging consequences from a reputational and investment confidence point of view. Digicel strongly encourages NICTA to refrain from pursuing such a line of enquiry.
- 8 The public inquiry raises threshold issues relating to:
- the RRC that NICTA must be satisfied are met before it can make a recommendation to subject retail services to a RSD;
 - the analytical framework that NICTA employs to ensure that its consideration of all of the RRC is coherent and comprehensive;
 - the standard of proof that must be met before NICTA can be satisfied that all of the RRC are met;
 - the means of proof, including the nature and level of evidence and analysis that NICTA must have before it can recommend a RSD; and
 - the requirements of natural justice.
- 9 NICTA must also meet minimum standards of decision-making under Papua New Guinea administrative law.
- 10 In addition, there are serious questions of law concerning the validity of NICTA's public inquiry. For reasons set out below, Digicel also strongly takes issue with any suggestion that its conduct is an abuse of a dominant position or otherwise anti-competitive. Nothing in Digicel's submission concerning the questions of law and whether Digicel's conduct is an abuse of a dominant position or otherwise anti-competitive, is a waiver or abandonment of the threshold question concerning

¹ See paragraph (i) of the Inquiry Terms of Reference.

NICTA's lack of jurisdiction to inquire into the the ToR or of any denial of natural justice.

2 Benefits of Competition to Date

- 11 The threat to impose retail regulation on mobile services endangers the positive outcomes that have been achieved to date following liberalisation of the telecommunications sector and Digicel's entry into the market. There is a real risk of the regulation being seen to "punish success", discouraging efforts to continue increasing the mobile penetration level in Papua New Guinea and thereby depriving Papua New Guinea of the benefits of competition going forward.

2.1 Digicel's investments in Papua New Guinea

- 12 Digicel's investments in Papua New Guinea can be summarised as follows:
- (a) Digicel is one of the largest foreign investors in Papua New Guinea, having invested in excess of PGK 1 Billion since it launched its telecommunications services in July 2007.
 - (b) Since then, Digicel has rolled out its voice and data network to all provinces in Papua New Guinea and now covers in excess of 4 million (72%) of the population of Papua New Guinea. Several of these areas had no telecommunications networks or services at all before the arrival of Digicel, including most parts of the Western Province and Bouganville². Indeed, we stress that Digicel is the only operator in Papua New Guinea to have satisfied all of its network coverage and network rollout licence obligations, including to each of the main centres, mid-sized centres, administrative district centres and small population centres detailed in its licence.
 - (c) To ensure its consumers are provided with the best quality of service, Digicel also established a world class backhaul transmission network across Papua New Guinea and has recently invested in the launch of a new 3G network in Papua New Guinea, a first for Papua New Guinea.
 - (d) Digicel continues to make investment commitments to its business in Papua New Guinea. For example, it is in the process of finalising plans to build more mobile towers and expand its 3G network to other main centres.
- 13 Digicel's investments have contributed to social development (both tangible and intangible) as well as economic development in Papua New Guinea.

² In comparison, bemobile's network coverage in remote areas is very limited, mostly at mining sites.

2.2 Progressing social development

(a) Direct

14 The impact of Digicel's entry into Papua New Guinea has been striking and two fold:

- (a) First, the impact on coverage, penetration, and expanded range of services and other market outcomes. This is documented in Table 1 below. International call charges have fallen significantly. For many significant destinations such as Australia, NZ, Malaysia, Singapore and the UK, call rates have fallen by between 45% and 67%. Domestic calls have also seen significant reductions, up to 44% depending on the type of call (e.g., peak vs off-peak).
- (b) Second, the impact on investment in Papua New Guinea and the long-term contribution that this makes to enhancing the physical capital base of Papua New Guinea's economy.

	Pre-Digicel (2007)	Post-Digicel (2011)	Difference
Mobile penetration (% population with a mobile service)	2.6%	37% ³	1,423% increase
Mobile coverage (% population covered by a mobile network)	12.5%	72%	576% increase
Handset prices – entry level	PGK 125 for SIM (start-up kit including call credit of PGK 100), plus handset cost between PGK 200-400 Total cost: PGK 325	Free SIM with a phone. (PGK 10 for SIM alone including PGK 3 call credit). Handset as low as PGK30 (e.g., ZTE's "Coral" handset) Total cost: PGK 40	88% reduction in handset & upfront cost
Services		<ul style="list-style-type: none"> ▪ 24 Hour free customer care ▪ Per second billing ▪ Free International 'Call Me' texts ▪ Credit me requests ▪ Free Voicemail retrieval ▪ Prepaid access to Internet ▪ Mobile web (GPRS) ▪ SMS banking ▪ BlackBerry ▪ Electricity vending system on mobile phones (EasiPay). 	
Mobile banking	None	Launched in 2011	
Customer Care	Free but operates 9 hours	FREE and available 24 days x	

³ Digicel's currently has around 2.37 million end users. PNG's current population is estimated to be 6.4 million.

	Pre-Digicel (2007)	Post-Digicel (2011)	Difference
	a day (8am to 5pm) only	7 days a week.	

Table 1: Digicel's entry in Papua New Guinea – impact on coverage, penetration, prices, services and other market outcomes

(b) Indirect

15 **Long-term productivity and wellbeing:** In the context of a developing economy such as Papua New Guinea's, it is important not to focus only on the highly visible outcomes achieved in the mobile market and the investments in physical infrastructure. At least as significant (if not more) is the contribution that mobile services and technology makes to:

- (a) raising the long-term productivity of the other sectors of the Papua New Guinea economy; and
- (b) improving the well-being of the people in Papua New Guinea that would not have real and substantive access to mobile services. Such well-being includes social networking and cohesion, improved health, greater security and increased level of education (e.g., through access to the Internet). They are tangible and measurable outcomes (in principle) that have as much significance and importance as the increase in economic activity (for example, as measured by Papua New Guinea's gross domestic product).

(c) Digicel in the community

16 Digicel has actively participated in the Papua New Guinea community, making significant contributions to Papua New Guinea's social capital base.

- (a) Digicel is actively involved in the Papua New Guinea community. It runs a host of community-based initiatives and has set up a Digicel PNG Foundation in Papua New Guinea which focus on educational, cultural and social development programmes. The Digicel PNG Foundation was officially launched on 15th October 2008 as a non-profit charitable organization with the aim to empower people by working with communities to develop and build sustainable and meaningful projects and programs focusing on the areas of education and health in Papua New Guinea.
- (b) During its three years of operations the Digicel Foundation has funded 131 community projects across 20 provinces, in the areas of basic education and health in rural areas, at a total cost of K 10 million. These projects have been rolled out in partnership with Government, NGO, churches and the private sector. To date the following milestones have been achieved:
 - i Construction of 44 primary school classrooms (including water & sanitation facilities through water tanks, toilets &a showers) in rural areas giving more than 1500 students access to a much improved and healthier learning environment

- ii Construction of 58 elementary classrooms in rural areas providing more than 1000 children with access to basic education and a much improved learning environment
 - iii 31 Community Learning Centres operational nationwide providing more than 2,000 vulnerable children with a basic education through numeracy and literacy skills
 - iv Funding and operations of 8 new mobile clinic ambulances in 7 different provinces, in partnership with Churches and Provincial Health, providing free outreach and health services to more than 22,000 people to date in rural areas
 - v Funding of 6 Family Support Centres in partnership with Provincial Health and UNICEF offering free services to victims of domestic violence
 - vi Construction of 4 new Womens Resource Centres in partnership with Churches, NGO's and Provincial Health providing shelter and counseling as well as skill based training for victims of violence
 - vii Funding of capacity building programs in partnership with churches and local NGO's addressing the quality of learning in the Community Learning Centers in the settlements of Port Moresby by training and mentoring community based volunteer teachers, developing the skills of community leaders in these settlement communities and providing women in the settlements with basic life skills training
 - viii Providing basic services (shelter, food, care and education) to up to 500 vulnerable children and funding school fees for over 600 vulnerable primary school aged children through WeCARE Foundation, a local NGO focusing on supporting young vulnerable women and children living in the settlements of Port Moresby.
- (c) Over the next one to three years, the Foundation is committed to maintaining its current level of investment to give back to Papua New Guinea communities by supporting community projects in the areas of basic education and health, with a special focus on improving the access and quality of these services in rural Papua New Guinea communities.
- (d) Digicel has been working with the Office of Climate Control to develop an early warning system for national emergencies. In the wake of the major earthquake in March in Japan, Digicel played a key role in alerting and updating Papua New Guinea's coastal population of the potential tsunami threat. The National Disaster Centre (**NDC**) and Digicel, working jointly, identified the areas that were at risk and quickly issued an SMS tsunami alert to over 300,000 people along the northern coastal areas of Papua New Guinea. Digicel's management, technical and customer care teams worked

throughout the night to ensure communications remained operational and were on standby to provide customers with updates through the free customer care hotline via 123. Once the official confirmation was given by the NDC that the risk had passed and the warning had been removed, Digicel issued a SMS to the same numbers in the coastal areas giving the all clear.

- (e) Digicel is a strong supporter of Papua New Guinea's sports community. It sponsors Papua New Guinea's premier rugby league tournament and works closely with the Papua New Guinea Sports Federation and Olympic Committee to support Team PNG.

2.3 Progressing economic development

- 17 The Papua New Guinea economy has greatly benefited from the launch of Digicel. The Treasurer reported that Digicel contributed to 0.7% of Papua New Guinea's GDP growth (which grew by 6.5%) in 2007⁴.

(a) Direct contribution from investment in physical infrastructure

- 18 The economic growth flows directly from the increase in economic activity from the investments in physical infrastructure that Digicel has made and referred to in paragraph 12 above. The physical infrastructure put in place in turn contributes to an increase in the productivity of the other sectors of the Papua New Guinea economy, thereby raising economic growth even further.

(b) Direct contribution that mobile services make to the productivity of other sectors of the Papua New Guinea economy

- 19 There are a number of transmission mechanisms linking mobile diffusion to economic growth:
 - (a) Mobile communications in the hands of households and firms can help overcome the information deficit. As a result, markets become less exploitative and more competitive. Incentives to produce and sell output grow.
 - (b) Mobile communications reduce transaction costs. Telephone calls replace face-to-face contact. As a result, costs are saved and business and personal contact speeded up.
 - (c) Better mobile communications can make a country more attractive to tourists.
 - (d) There is some evidence that roll-out of mobile services is linked with higher levels of foreign direct investment.

⁴ <http://www.digicelpng.com/en/about/news/digicel-contributes-07-growth-to-national-gdp-of-papua-new-guinea>

- (e) Mobile communications can assist in delivery of health care and education, by improving access to expertise.
- 20 The contribution that ICT services in general, and mobile services in particular, makes to the long-term productivity of a developing economy such as Papua New Guinea's is well documented and discussed more fully in Schedule 3.
- (c) ***Direct contribution to employment and human capital development***
- 21 Digicel employs in excess of 600 persons directly, of which in excess of 95% are Papua New Guineans. Each of these individuals benefits from the extensive training and skills transfer processes of Digicel, including the Digicel University. Thousands more Papua New Guineans benefit indirectly from Digicel's activities, including its construction, security, distribution and retail activities.
- 22 The human talent that is created from working directly or indirectly with Digicel is a significant contribution to human capital development in Papua New Guinea. This is not only reflected in the increase in income enjoyed by staff employed by Digicel, it is also reflected in the diffusion of human talent as staff employed in Digicel join other firms both in the ICT sector (including Digicel's competitors) as well as other sectors such as banking and retail which compete for the same pool of talent.

3 Risks Associated with Retail Price Regulation

- 23 Regulatory intervention in the pricing of retail services is a very serious matter and can have significant downstream impacts on investment, innovation and competition. This is particularly the case in markets that are subject to competition and where entry has been relatively recent, i.e. markets are still growing and developing, as is the case in Papua New Guinea. Presumably this why legislators made RSDs subject to very strict criteria and provided a two step "approval" process (NICTA makes a recommendation for that Minister may either accept or reject), both of which steps are subject to appeals processes.
- 24 One of the risks with ill-advised retail price regulation is that the regulation becomes self-justifying. For example, in competitive markets, apparently high prices act as an incentive to rivals to seek market share by entering, expanding or under-cutting that price. If a regulator prematurely regulates the price downwards (e.g. to some estimate of "cost"), it also removes the incentive that motivates competition. Thereafter, no competition emerges, which appears to justify the regulation. The appearance is illusory however, because in the absence of regulation, competition would have had similar effects on prices (without all of the regulatory costs, including reduced investment).
- 25 Importantly, under the Act, RSDs are required to be applied to specific service providers with respect to a specific service that they provide. Thus, this type of regulatory intervention is necessarily asymmetric in its effect and can create

competitive distortions. Digicel submits that it would be particularly inappropriate to use a RSD to attempt to protect a poor performing market participant from the effects of competition.

- 26 Inappropriate regulation or regulatory proceedings can have serious impacts in the industry and the firms that have invested in it. This is because such proceedings or regulation carry with them significant direct and indirect costs and serve to undermine the confidence of investors which in turn risks delays in or cancellation of future investment. This is regardless of the final outcome of such proceedings. Digicel submits that, given the emerging status of the telecommunications industry and the fragile nature of the investment environment in Papua New Guinea, this consideration alone should have caused NICTA to ensure that there was a very high threshold of evidentiary support for this regulatory proceeding. The Discussion Paper is exceptionally weak in this regard, as detailed below.
- 27 Any recommendation in favour of regulating mobile services would have serious long-term implications for Digicel, for investment in ICT markets and for end users of ICT services.
- 28 There will be an **adverse financial and commercial impact on Digicel**. Digicel will no longer be free to determine retail prices on a commercial basis. It follows from this that Digicel is not free to make optimal decisions that maximise the profitability of Digicel's business. Digicel's financial position will therefore be seriously undermined.
- 29 There will be an **adverse impact on investment in ICT markets**. There are two aspects to this:
 - (a) First, it would send a bad signal to potential ICT investors. Regulation of retail services in ICT markets both internationally and historically in Papua New Guinea has generally been confined to fixed telephony services. Any retail regulation of mobile services in Papua New Guinea would be unprecedented and viewed unfavourably by investors. Fixed telephony services have historically been state owned monopolies that have characteristics that are absent from mobile services.
 - (b) Second, it would limit access to capital and increase the cost of capital. Papua New Guinea does not have well-developed domestic capital markets. Papua New Guinea's capacity to accumulate and employ capital from domestic sources is limited. Operators in ICT markets therefore depend to a significant extent on their ability to generate a stable income stream at an adequate level in order to raise capital from markets overseas. Any regulation of retail prices would be very damaging to the ICT sector's access to capital and would put Papua New Guinea at a disadvantage compared with other similar developing markets competing for private investor funding.

- 30 Finally, any adverse impact on investment incentives will also lead to **adverse long-term impact on end users of ICT services** in Papua New Guinea, both current and future end users. The central role that ICT services play in the lives of Papua New Guinea's people is obvious. Just as important is the significant contribution that ICT services make to the long-term productivity of other sectors of the Papua New Guinea economy. (For a discussion on the contribution to long-term productivity, see section 3 above and Schedule 3.) These long-term benefits will be adversely affected if NICTA wrongly recommends subjecting retail services to an RSD.
- 31 The consequences of an inappropriate RSD are asymmetric. The adverse impact of a "false positive" (i.e., recommending an RSD when this is unwarranted) far exceeds the adverse impact of a "false negative" (i.e., not recommending an RSD when this is warranted). This is because a "false negative" is self-correcting over time (through the process of competition and market entry), whereas a "false positive" has lasting consequences (for the reasons explained above).

4 Thresholds for Retail Price Regulation

4.1 Introduction

- 32 NICTA must meet a number of thresholds before it can recommend subjecting a retail service to an RSD. The thresholds concern:
- (a) First, meeting the **requirements of the Act**. Specifically, the criteria set out in the Act for recommending retail regulation – i.e., the RRC;
 - (b) Second, articulating a coherent and comprehensive **analytical framework** that is consistent with the RRC. The framework links the requirements of the Act to the factual data that NICTA must obtain, and helps determine what factual data is relevant to the RRC, and what factual data is irrelevant to the RRC;
 - (c) Third, ensuring that the data collected does in fact meet the requisite **standard of proof**. For the reasons set out below, Digicel submits that the proof beyond reasonable doubt is the requisite standard that NICTA must meet before recommending retail regulation;
 - (d) Fourth, fully discharging the **burden of proof**. Digicel submits that unless the requisite standard of proof has been met in respect of each of the RRC, NICTA cannot recommend retail regulation. It is impermissible for NICTA to conclude that a RRC is met based merely on an asserted presumption that has not been rebutted;
 - (e) Finally, ensuring that the **means of proof** employed meet the minimum standards of evidence that include relevance, reliability, objectivity and accuracy. Conjecture, speculation, non-expert opinion, suppositions,

guesswork and mere theoretical propositions do not meet the minimum criteria of evidence.

33 In addition to the foregoing thresholds that go to the substantive decision in question – i.e., whether to recommend subjecting a retail service to a RSD – NICTA must also meet minimum procedural requirements as well as minimum standards for regulatory decision-making under Papua New Guinea’s administrative law. The principles of natural justice are enshrined in the Constitution of the Independent State of Papua New Guinea (in Division 4 of Part IV).

34 Before considering these threshold questions in detail, Digicel would like to record its continued concern over NICTA’s decision to hold the present public inquiry at this time and particularly when there has not been any cogent evidence or analysis put forward that would support any regulatory intervention of any kind. By NICTA’s own admission, bemobile failed to provide any evidence or analysis to support its complaint, despite being asked by NICTA to do so⁵ and NICTA itself has not so far disclosed any basis for continuing the Inquiry other than to say at section 2 of the Discussion Paper:

“However, having drawn an issue to NICTA’s attention, **NICTA undertook a preliminary examination of its own** and concluded that there were matters that warranted being tested and considered further through a public inquiry process.” (emphasis added)

35 In particular, none of the evidence or analysis relating to this purported “preliminary examination” has been disclosed and so the entire basis of the Inquiry remains opaque to Digicel. This failure to disclose relevant information (to the extent that it exists) is a serious procedural error and denies Digicel the opportunity to review and correct, contradict or comment on matters that were apparently influential in terms of NICTA’s decision to undertake this Public Inquiry.

4.2 Retail Regulation Criteria

36 The discussion paper does not consider the RRC. This is an error of law and a serious procedural failure. NICTA must be satisfied that all of the RRC are met. They are:

“(a) that making a retail service determination for the retail service in respect of an operator licensee for a particular period **will further the achievement of the [competition objective and efficiency objective]** set out in Section 124 but disregarding Section 124(2); and

(b) **specifically**, in relation to the competition objective, that —

(i) that operator licensee has a substantial degree of power in the market within which the retail service is supplied; and

⁵ NICTA notes at section 2 of the Discussion Paper that “[t]he evidence provided by bemobile in support of its claims against Digicel was not compelling and does not, of itself, warrant a public inquiry”. NICTA further notes at section 2.3 of the Discussion Paper that it “invited bemobile to substantiate further its claims”.

(ii) in the absence of the retail service determination for that period, that substantial degree of power is likely to —

(A) persist in the market over that period; and

(B) expose retail customers to a material risk of higher prices and/or reduced service where they acquire the retail service from that operator licensee during that period; and

(c) specifically, in relation to the efficiency objective, that the operator licensee will not be prevented from achieving a return on assets during that period sufficient to sustain investment necessary to supply the retail service; and

(d) the aggregate likely benefits of making that retail service determination outweigh any aggregate likely detriments.”

(emphasis added)

4.3 Analytical framework

37 NICTA must apply an analytical framework to ensure that its consideration of all of the RRC that is rigorous and convincing.. The analytical framework should be:

(a) comprehensive – it must address all of the RRC; and

(b) coherent – it must be relevant to the RRC and the objective of the Act which is

“to ensure that the ICT industry contributes to the greatest extent possible to the long-term economic and social development of Papua New Guinea, by means that include:

(a) providing a regulatory framework consistent with the regulatory principles ... that promotes:

(i) the long-term interests of Papua New Guinea and its people ...; and

(ii) the efficiency and competitiveness of the ICT industry in Papua New Guinea;

(b) ensuring that ICT services ... are supplied as efficiently and economically as practicable and supplied at performance standards that reasonably meet the social, industrial and commercial needs of Papua New Guinea and its people;

(c) promoting the development of an ICT industry in Papua New Guinea that is efficient, competitive and responsive to the needs of Papua New Guinea and its people;

(d) promoting and maintaining fair and efficient market conduct and effective competition ...;

- (h) ... encouraging, facilitating and promoting sustainable investment in, and the establishment, development and expansion of, the ICT industry in Papua New Guinea, including via the exercise of facilities rights.”

38 The discussion paper does not clearly set out an analytical framework that meets these requirements. The failure to articulate a clear analytical framework appears to have contributed to a number of errors in the way NICTA has approached the subject matter of its inquiry:

- (a) While NICTA correctly begins its analysis with market definition, NICTA adopts an idiosyncratic definition of the market. In particular, the market definition adopted is far too narrow for NICTA to form a reliable view on the competition objective and the efficiency objective.
- (b) NICTA’s assessment of whether to recommend a RSD appears to go no further than a number of tentative conclusions about whether Digicel’s conduct is an abuse of a dominant position or anti-competitive. There is nothing in the discussion paper that goes on to consider whether making a RSD would satisfy the RRC, including promoting the competition objective and the efficiency objective or otherwise be consistent with the objectives of the Act. The focus on whether Digicel’s conduct is an abuse or anti-competitive appears to have distracted NICTA from the statutory requirement to consider all of the RRC.

39 Finally, NICTA’s analysis is inadequate because it does not apply a factual / counterfactual assessment of a RSD. Such an analysis is required under the Act and would recognise the potential costs of retail price regulation, including reduced incentives to invest and changes in other retail prices due to waterbed effects.

40 An example of a coherent approach to applying the Act to a RSD is set out in the table below. Note that this is provide for illustrative purposes only and does not necessarily provide an exhaustive list of the steps required (although each of the steps that is set out must be considered in this type of proceeding). For example, NICTA must also take into account other relevant parts of the Act, including the objectives set out in section 2 of the Act..

Steps	Reference
Define the subject operator licensee(s)	Section 157(1)(a). Note that a Retail Service Determination can only be made “ <i>in respect of an operator licensee</i> ”. This means that there must be a sound <i>prima facie</i> case that a specific operator licensee <i>should</i> be subject to an RSD.
Define the retail service	Section 157(1)(a). A Public Inquiry in relation to an RSD cannot be undertaken in the abstract. NICTA must, prior to commencing a Public Inquiry, have established a sound <i>prima facie</i> case that a specific

	retail service <i>should</i> be subject to an RSD.
Define the market within which the relevant retail service is supplied	Section 158(b)(i)
Determine with the subject operator licensee has SMP in the market within which the relevant retail service is supplied.	Section 158(b)(i)
Determine whether SMP (if it exists) is likely to persist over a period (and if so what period)	Section 158(b)(i) and Section 158(b)(ii)A. The Act requires that the SMP must persist for the duration of the period during which a RSD is proposed to be in place.
Determine whether, as a result of that SMP, higher prices or reduced service levels will result	Section 158(b)(ii)B
Establish a factual and a counterfactual	<p>This means considering the difference between two hypothetical future situations, one in which an RSD is made (the factual) and one without the RSD (the counterfactual). The difference in outcomes between these two scenarios is then able to be considered objectively.</p> <p>Establishing a counterfactual is a critical step for the subsequent analysis as it forms the benchmark against which any changes arising from the proposed RSD are to be measured.</p> <p>In framing a suitable counterfactual, Digicel submits that NICTA must base its view on a pragmatic and commercial assessment of what is likely to occur in the absence of the proposed regulation.</p>
Determine the extent to which investment would be affected by the factual	Section 158(c)
Determine whether the factual will further the achievement of the promotion of effective competition in markets for ICT services in PNG, subject to promoting the economically efficient use of and the economically efficient investment in the facilities by which ICT services may be supplied and otherwise promotes the objectives of the Act.	Sections 2, 3, 10(1), and 124 (1),
Determine whether the aggregate benefits of making the RSD will outweigh any aggregate likely detriments.	Section 158(d)

41 Unfortunately, aside from an attempt to define the relevant market and consider the issue of market power, NICTA does not appear to have followed and of the above necessary steps

42 Unless and until NICTA has undertaken coherent and comprehensive analysis and satisfied itself that all of the legislative and procedural requirements have been met (including the RRC, Digicel submits that it is not open to NICTA to reach a conclusion that the making of a RSD should be recommended to the Minister.

4.4 Standard of proof is proof beyond reasonable doubt

43 The standard of proof is proof beyond reasonable doubt in respect of each matter that NICTA must be satisfied of. The requirement to be “satisfied” must be based on **cogent and compelling evidence**.

44 Before NICTA can recommend to the Minister that a retail service should be subjected to a RSD in respect of Digicel, section 159 requires NICTA to be:

“satisfied that all of the retail regulation criteria would be met by subjecting, ..., a retail service to a retail services determination in respect of a particular operator licensee on particular terms”. (emphasis added)

45 The requirement to be “satisfied” that all of the RRC would be met is a high threshold particularly given the uncertainties associated with predicting how markets will evolve with and without a regulation, and what this implies for competition and efficiency. This goes to the nature and level of evidence that NICTA must have before it can be satisfied that the RRC are met. The burden of showing that the evidence obtained is sufficient to meet the requisite standards on cogency rests with NICTA. This makes sense given the highly interventionist nature of retail service regulation and the potentially very harmful impact it could have on the industry and on Papua New Guinea.

46 Because of the serious nature of a RSD and the consequences that follow, the law requires a very high standard of proof before NICTA can be satisfied that all of the RRC are met. That standard for practical purposes equates to **proof beyond reasonable doubt** – i.e. the criminal standard in respect of each and every one of the matters requiring consideration by NICTA. Judicial support for this high standard of proof is set out in more detail in Schedule 2.

47 There are several highly adverse consequences that underline the seriousness of an improperly made RSD. These have been set out in more detail in section 3 of this submission.

4.5 Burden of Proof – on NICTA

48 If the evidence before NICTA falls short, NICTA cannot require Digicel to prove that there is no evidence available that would enable NICTA to be satisfied that each of

the RRC are met. It is wholly inappropriate for NICTA to say that “[i]n the absence of any new information or evidence being [sic], NICTA will be inclined to affirm its tentative conclusions” about a matter⁶. Rather, the burden lies on NICTA to be satisfied that it has gathered all the information and evidence relevant to the matter and is therefore in a position to reach a conclusion that all of the RRC would be satisfied. This burden flows from the nature of NICTA’s regulatory function, which is to make a decision in relation to a matter based on evidence.

4.6 Means of Proof

49 It is not Digicel’s role to instruct NICTA as to how it should discharge its responsibilities, but some comment on the means by which a proposed RSD should be assessed is appropriate. Without suggesting this is a complete description, at least four distinct tasks can be identified.

- (a) First, as discussed further below, markets must be defined properly. This must be a fact-based analysis, drawing on information and data from the actual markets in Papua New Guinea. For example, primary survey data, data showing usage patterns, econometric estimates of price elasticities, and documented interviews with market participants could all be useful inputs.
- (b) Secondly, an actual proposed RSD needs to be described in detail. It is impossible to properly analyse the merits of an RSD in the abstract.
- (c) Third, the future evolution of the relevant markets must be compared with and without the specific RSD in place. This is a predictive analysis, and requires that NICTA consider how consumer and operator behaviour will change as a consequence of the RSD.
- (d) Fourth, the outcome of the predictive analysis must then be translated back to the variables of interest, which in this case means determining what the predictive analysis implies for competition and efficiency in the future.

50 Digicel emphasises that the above is not a complete prescription of NICTA’s obligations. In addition, we note that it is clearly not sufficient for NICTA to base its views on conjecture, speculation, its own unsupported opinion, or on un-referenced claims about what others have found. Such an approach, which regrettably is very evident in the Discussion Paper does not meet the minimum criteria of evidence (e.g., relevance, reliability, objectivity, accuracy).

51 There are minimum standards of evidence that NICTA (along with any regulator) should meet to ensure that its decisions are based on reliable and accurate information.

- (a) Evidence may be quantitative or qualitative. Quantitative evidence includes quantitative estimates of demand elasticity and regression analysis.

⁶ NICTA Discussion Paper, p 23.

Qualitative evidence may include customer surveys, expert opinion and written testimony from individuals who have actual knowledge of a matter.

- (b) Conjecture, speculation or opinion (other than expert opinion) is not evidence. They do not meet minimum criteria of evidence, for example, relevance, timeliness, reliability, objectivity and accuracy.
- (c) Where the issue at hand concerns a future matter – for example, the likely state of competition over the next five years – the quality of the evidence is important. It must not be assumed that historical evidence is an unbiased predictor of the future. Historical evidence has to be assessed critically to determine to what extent they are relevant to the future. The quality of evidence required to reach a view on a future matter is likely to be higher than the evidence required to establish a current or past matter.

4.7 Natural justice

- 52 The public inquiry is governed by the rules of natural justice. Section 59(2) of the Constitution of the PNG state provides that:

The minimum requirement of natural justice is the duty to act fairly and, in principle, to be seen to act fairly.

- 53 The Constitution emphasises the central role of the principles of natural justice and administrative law in the development of rules of the “underlying law”. Section 60 provides:

In the development of the rules of the underlying law in accordance with Schedule 2 (adoption, etc., of certain laws) particular attention shall be given to the development of a system of principles of natural justice and of administrative law specifically designed for Papua New Guinea, taking special account of the National Goals and Directive Principles and of the Basic Social Obligations, and also of typically Papua New Guinean procedures and forms of organization

- 54 The “underlying law” refers to the unwritten law of Papua New Guinea based on the decisions of Papua New Guinea courts. While decisions made by NICTA are not part of the underlying law, they are subject to the principles of natural justice and administrative law, which form part of the underlying law of Papua New Guinea.

- 55 There are two requirements that NICTA must observe:

- (a) **Due process:** NICTA must give Digicel a reasonable opportunity to be heard at every step of the public inquiry process; and
- (b) **Impartiality:** NICTA’s conduct of the public inquiry must not give rise to an apprehension of bias. It is not sufficient for NICTA to be impartial; NICTA’s conduct of the inquiry must also not create an appearance of bias.

The public inquiry has come short on each requirement.

- 56 **Failure to observe due process:** Digicel has not had a fair opportunity to review the basis for NICTA's decision to commence the public inquiry. NICTA explains that its decision to hold the public inquiry was based on its own preliminary examination, independent of bemobile's request that NICTA hold a public inquiry. At page 1 of the Discussion Paper, NICTA says it:

"did not find the evidence submitted by bemobile in support of its claims against Digicel to be compelling. However, having brought the matter to NICTA's attention, NICTA undertook its own preliminary examination based on the information available to it and concluded that there were matters that warranted being tested and considered further through a public inquiry process" (page 1);

- 57 NICTA describes the process it adopted to determine if a public inquiry were warranted in the following way (at page 7):

"... in response to bemobile's request, NICTA adopted a process to determine whether or not there was a prima facie case that warranted being subject to a detailed examination through a public inquiry process. Accordingly NICTA:

- informed Digicel of bemobile's request (as required under subsection 157(3) of the Act);
- invited Digicel to respond, with supporting evidence, to the claims made by bemobile;
- invited bemobile to substantiate further its claims;
- referred the matter to the ICCG; and
- undertook its own analysis of the relationships between the retail and wholesale prices and costs for the relevant services (to the extent that such pricing and cost data was available to NICTA)."

- 58 Having undertaken its own analysis of preliminary examination of the matter and analysis of the relationship between prices and costs, NICTA did not give Digicel a fair opportunity to comment on NICTA's examination and analysis **before** commencing the public inquiry. Nor has any cogent evidence or analysis been included in the Discussion Paper. Digicel should have been given all evidence and analysis relied upon by NICTA in reaching its preliminary views and analysis. This failure is exacerbated by the continuing failure of NICTA to provide this information.

- 59 **Apprehended failure to be impartial:** A fair reading of NICTA's discussion paper gives rise to an apprehension of bias in the following respects:

- (a) **(unfairly targets Digicel)** Throughout the discussion paper, including the stated terms of reference, NICTA specifically refers only to Digicel's actions in relation to mobile calls and SMS, even though Digicel is just one of three providers of mobile calls and SMS in Papua New Guinea and that there is no evidence that has been presented to support an argument of any

wrongdoing by Digicel. NICTA should have established a properly reasoned and evidenced prima facie case that a RSD in relation to Digicel is warranted;

- (b) **(presumes “guilt”)** NICTA states that “[i]n the absence of any new information or evidence being [sic], NICTA will be inclined to affirm its tentative conclusions”, including its conclusion that Digicel has SMP in the relevant markets and that Digicel’s pricing for off-net calls is excessive. This has the effect of putting the burden on Digicel to prove negative propositions.
- (c) **(selective consideration of whether Digicel is dominant)** Finally, NICTA’s consideration of the factors relating to dominance appears biased against Digicel. In particular, NICTA only considers as relevant factors suggesting that Digicel is dominant, but does not acknowledge the relevance of factors indicating that Digicel is not dominant.

60 Digicel does not claim that NICTA is biased against Digicel. Nonetheless, there is a legitimate apprehension that NICTA’s conduct of the inquiry has created an appearance of bias.

61 The public inquiry has come short on the requirements of natural justice concerning due process and impartiality. If NICTA decides, after receiving and giving due regard to public submissions on its discussion paper, that there is no case for recommending a RSD, then these concerns do not have to be addressed. If however NICTA continues with the public inquiry, Digicel reserves all its rights in relation to NICTA’s failure to observe natural justice, including applying to the court for appropriate directions.

4.8 Papua New Guinea administrative law

62 Apart from the threshold questions of law concerning the requirements of the Act, an analytical framework for connecting factual evidence to the statutory requirements, standard of proof, burden of proof, means of proof, and the requirements of natural justice discussed above, NICTA must meet minimum standards of decision-making under Papua New Guinea administrative law. These include:

- (a) having regard to all of the matters that NICTA is expressly or by implication required to consider under the Act;
- (b) ignoring irrelevant matters;
- (c) NICTA directing itself properly in law;
- (d) NICTA not operating on the basis of bad faith or dishonesty;
- (e) there being a real exercise of NICTA’s discretion; and

- (f) acting as any reasonable person would act and not be so absurd in its action that no reasonable person would act that way.

5 The relevant market

63 NICTA concludes in its Discussion Paper that it:

“is currently inclined to the view that the relevant market is the market for off-net call and SMS services by the retail customers of the mobile network operators, even though the complaint relates only to calls from Digicel to bemobile customers”.

64 The market definition exercise conducted by NICTA and described in the Discussion Paper is unpersuasive and beset with manifest errors of law, of fact and of assessment. For these reasons, Digicel respectfully encourages NICTA to revise it in favour of the correct definition of the relevant market, namely that for the provision of mobile telecommunications retail services to end users in Papua New Guinea.

65 The fundamental features of mobile telecommunications in Papua New Guinea that matter for market definition are no different to those in other countries. Similar types of technologies and networks have been deployed. Those technologies and networks are used for the same purposes, namely the provision of voice, data and other mobile telecommunications services. The basic and value-added requirements of end-users for such services are the same, as is the manner in which service providers meet these requirements and offer their services to end-users. And finally, the manner in which end-users purchase and use these services is essentially the same. There is nothing unique about Papua New Guinea.

66 It is also not a unique feature of Papua New Guinea that end-users purchase bundles of offerings rather than individual services from mobile service providers. Such offerings include, for example, the ability to receive calls (or access), to make domestic calls, SMS, international calls and international roaming calls, and the ability to access value-added services, such as voicemail. Almost all the network assets that support any one of these offerings also support the other offerings. End-users recognize this fact and the relative advantages – in terms of, for example, convenience, cost and time savings of aggregating the consumption of a number of offerings into one package. In response, mobile service providers do not offer unbundled individual services and no stand-alone off-net call service is sold in Papua New Guinea.

67 Based on these facts, competition and regulatory authorities across the globe have defined relevant markets in their mobile telecommunications sectors, and not one authority has adopted a market definition similar to that concluded by NICTA to the best of Digicel’s knowledge.

68 In contrast, NICTA's market definition is systematically biased because it completely ignores the fact that, in retail mobile markets, consumers buy bundles of services, so cluster market issues need to be considered. As many other regulators have recognised, these issues are critical in mobile market definition and must be addressed in order to correctly capture the features of mobile markets and define the boundaries of these markets. Instead NICTA has focussed narrowly on the services that are the subject of bemobile's complaint, without considering how these services are linked to others due to demand- and supply-side complementarities

69 Therefore, the market definition analysis and conclusion of NICTA in no way reflects the market definition analysis and conclusions of arguably the world's most reputable and experienced regulatory and competition authorities. These conclusions, reached by distinct authorities, in different jurisdictions, at different time periods and under different circumstances have been remarkably consistent.

70 Such authorities include:

- (a) The European Commission in the *European Union* has consistently defined a relevant product market "*for the provision of mobile communications services to end users*" in its antitrust and merger cases. This consistency was again expressed in its most recent merger decision in the mobile communications sector, namely Commission Decision of 1 March 2010 in Case COMP/M.5650 *T-Mobile/Orange*.
- (b) An overwhelming majority, if not all, of the national regulatory authorities of the twenty seven *Member States of the European Union* have defined a cluster market for the provision of mobile communications retail services to end-users in their respective Member States as part of their assessments of market power under the new regulatory framework for electronic communications. The regulator in *Belgium*, for example, determined the "*relevant retail market includes all voice calls on GSM (2G) and 3G networks, as well as SMS and other data services*".
- (c) The *United States of America* in its most recent competition proceedings affecting the mobile wireless telecommunications sector, namely *U.S.A v. AT&T Inc, T-Mobile Inc and Deutsche Telekom AG* of August 2011, has defined the relevant product market as "*mobile wireless telecommunications services*", to include "*both voice and data services (e.g., texting and Internet access)*".
- (d) In February 2010, the Commerce Commission of New Zealand defined a "*retail mobile services market*", comprising "*the national retail market for mobile services, including mobile subscription and origination services (encompassing mobile-to-mobile calling, SMS, MMS and data services)*".

- (e) In May 2009, the Australian Competition and Competition Commission in Australia defined “a market for retail mobile services”, including voice, SMS, MMS and other services supplied over 2G, 2.5G and 3G networks.

71 Competition and regulatory authorities in countries smaller than Papua New Guinea and in developing countries have also reached similar market definition conclusions in respect of retail mobile communications services. For example, the market definition exercise of the national regulatory authority in Malta determined that a “retail market ... consists of outgoing calls (including international roaming calls) and SMS services for both business and residential customers, and pre-paid and post-paid services, independently of the underlying network (2G and/or 3G)”. The national regulatory authority in Estonia reached a similar market definition conclusion, defining a market “which includes mobile access, voice services, short messaging services (“SMS”) and other data services. These services being offered over 2G and 3G networks”. Within the Pacific, Office of the Regulator in Samoa has defined a “cellular radio market”, where this is determined “to include provision of cellular radio services to the public including voice, messaging and GPRS/EDGE services”. In its most recent dominance designation of June 2009, the Interim Telecommunications Regulator in Vanuatu took the view that the relevant retail market was a “retail market for mobile services”.

72 A reason for this consistency of approach is that the principles of market definition, the methodology used to define markets and the evidence required for market definition purposes are well-established by economists, academics, lawyers, competition authorities and regulators, as well as by national and international courts across the globe. Universal principles of market definition are expressed in, for example:

- (a) the European Commission “Commission Notice on the definition of relevant market for the purposes of Community competition law” and in its “Commission Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services”;
- (b) in the Body of European Regulators for Electronic Communications’ “Revised ERG Working paper on the SMP concept for the new regulatory framework”;
- (c) in the “Horizontal Merger Guidelines” of the U.S. Department of Justice and the Federal Trade Commission;
- (d) in the “Merger Guidelines” of the Australian Competition and Consumer Commission;
- (e) in the UK Office of Fair Trading’s guidelines on “Market Definition – Understanding Competition Law”;
- (f) in the Commerce Commission of New Zealand’s “Mergers and Acquisitions Guidelines”; and

- (g) in the Independent Regulator and Competition Authority for the UK communications industries' *"Guidelines on Market Influence determinations"*.

- 73 These well-established principles of market definition and the methodology used for defining markets are also reflected in the NICT Act 2009. Section 4(1) of the NICT Act 2009 defines a "market" as "a market in the whole or part of Papua New Guinea for goods or services as well as other goods or services that, as a matter of fact and commercial common sense, are substitutable for them". Section 158(b)(i) also defines one of the RRC as the need to demonstrate an operator licensee "has a substantial degree of market power in the market within which the retail service is supplied".
- 74 NICTA in its Discussion Paper does not follow sections 4(1) or 158(b)(i) of the NICT Act 2009 or the well-established principles of market definition, the methodology used for defining markets and the evidence required to define markets. When NICTA considered the service dimension of the relevant market, it should have realised that customers do not buy, and operators do not sell "off-net calls" as distinct services. Instead, what is bought and sold is "phone credit" that can be used for any one of a range of distinct call and messaging types.
- 75 Not only is the market definition exercise of NICTA in the Discussion Paper grounded on manifest errors of law, it is also based on manifest errors of fact as for example:
 - (a) the evidence relied upon by NITCA to reach its market definition conclusion is not factually accurate, with the qualitative level of the evidence cited in support of each so-called fact presented by NITCA being at best unconvincing, dubious, subjective and anecdotal;
 - (b) the evidence on market definition presented by NICTA in its Discussion Paper does not contain all the information which must be taken into account by NICTA to define the relevant market, in particular to analyze the complexity of the current situation; and
 - (c) the method followed by NICTA to establish the facts is incorrect and biased.
- 76 The market definition exercise of NICTA is also devoid of any economic or econometric evidence, and lacks any thorough robustness analysis. Indeed, NICTA itself acknowledges that it does not have information on the elasticity of demand at current price levels. In contrast, it is universally accepted by economists, academics, lawyers, competition authorities and regulators, as well as by the national and international courts across the globe that economic analysis plays a central role in competition enforcement. A rigorous and systematic analysis of reliable and relevant market data would provide quantitative estimates, measures of precision and results that are reproducible by peers.
- 77 NICTA has obligations to establish that the evidence it relies upon is factually accurate, reliable and consistent, to ensure that the evidence contains all the

necessary information, which must be taken into account in order to assess the complex situation and to ensure that the evidence is capable of substantiating the conclusions drawn from it. These obligations are all the more compelling when the market definition conclusion of NICTA is so far removed from an international best practice, yet the characteristics of the mobile telecommunications sector in Papua New Guinea are *no* different to those found in any other country. Furthermore, the consequences of an incorrect conclusion are very serious for the industry and consumers, including having a “chilling effect” on highly desirable investment and conduct.

78 The market definition exercise and resulting conclusion of NICTA also present manifest errors of assessment. The evidence, for example, presented by NICTA is incapable of substantiating the market definition conclusions of NICTA. Four points are cited by NICTA on page 11 concerning what might happen if Digicel increased the price of off-net calls.

- (a) The first is pure speculation that Digicel subscribers might just pay higher prices (i.e. that demand is relatively inelastic), coupled with the vague and unsubstantiated assertion that “*customer inertia and acceptance are usually under-estimated*”. Since NICTA has no actual estimates of customer inertia (merely speculation) the relevance of the asserted bias towards under-estimation is obscure, as of course is the provenance of the bias claim.
- (b) The second ignores the fact that subscribers know, on a call specific basis, what the price of a call is. Digicel customers know for example the cost of calls to benobile numbers, and will also know if the price increases. Just because Digicel customers may make relatively few off-net calls does not mean they will accept a price increase of these calls.
- (c) The third refers to the ability for Digicel subscribers to ask the B party to call back. But if this activity increases following a price rise (as one would expect), it would undermine the profitability of the price rise.
- (d) The fourth is pure speculation and amounts to NICTA simply claiming that demand is not responsive to price over a moderate time period. If this is true, why are prices not higher already?

79 More generally, this passage of the Discussion Paper is asking entirely the wrong questions because it is focusing only on one service (off-net calls from Digicel) in a larger bundle of services that collectively comprise the relevant market, and which bundle is also sold by benobile and Citifon.

80 The only exception to our criticism above of the market definition exercise of NITCA is that Digicel agrees that the geographic market is likely to be national and that retail customers are likely to include both residential and business customers.

81 Digicel notes that the market definition exercise conducted by NICTA is not impartial and concentrates solely on Digicel.

- 82 In conclusion, therefore, Digicel submits that that the relevant market is the market for the provision of mobile telecommunications retail services to end users in Papua New Guinea nationally.
- 83 Digicel also submits that NICTA's flawed market definition invalidates all of its subsequent analysis that is based on this definition. A valid market definition is critical to conducting a sensible competition analysis. If the boundaries of the market are defined incorrectly, conclusions about market power will not be reliable. In particular, erring by defining markets that are excessively narrow (as NICTA has done here) is likely to lead to finding that firms in these markets have substantial market power when in fact they have none. NICTA's unjustifiably narrow market definition therefore biases its market power analysis towards finding that Digicel has market power.

Response to questions

(1) Do you agree with the analysis and the conclusion about the definition of the relevant market for this inquiry?

Digicel does not agree with NICTA's preliminary analysis or with the conclusions for the reasons explained above.

(2) If you disagree with the market definition relevant to this inquiry, what market(s) would you consider to be the relevant market(s)?

Please see section 5 of this submission.

6 Substantial degree of power in a market (SMP)

- 84 NICTA's preliminary conclusion from its dominance analysis is that "there is a prima facie case that Digicel is dominant in the relevant markets (those markets being the retail markets for off-net calls and SMS services by mobile network customers."
- 85 Digicel does not agree with this because:
- (a) NICTA's market power analysis is based on an invalid market definition;
 - (b) NICTA's market power analysis is based on manifest errors of fact;
 - (c) NICTA's analysis does not take account of all facts that ought to be considered and are necessary for a rigorous analysis;
 - (d) NICTA's method for collecting factual evidence has been biased and inadequate;
 - (e) NICTA's analysis is subject to manifest error of law;

- (f) Finally, NICTA's analysis is subject to manifest error of assessment.
- (g) NICTA's process and reasoning to assess SMP is seriously flawed and biased towards finding that Digicel has SMP.

86 **NICTA's market power analysis is based on an invalid market definition:**

- (a) As we have submitted above, NICTA's preliminary market definition analysis is flawed and leads to the erroneous definition of a very narrow market in the service dimension. With a narrow market definition, a finding of SMP is more likely, because there will naturally be fewer competitors and barriers to entry and expansion will appear greater. NICTA's excessively narrow preliminary market definition leads to an incorrect finding that Digicel has SMP in the market for off-net calls and SMS.
- (b) Even a carefully conducted market power assessment will lead to the wrong conclusion if it is based on an incorrect market definition. It is therefore crucial that NICTA re-visit and correct its market definition analysis before any further assessment of market power is undertaken.

87 **NICTA's method for collecting factual evidence has been biased and inadequate.** There has been no systematic attempt to collect relevant and reliable information from market participants. Apart from information about retail rates and interconnect rates, NICTA has not to Digicel's knowledge undertaken any quantitative analysis, for instance, pertaining to market share or the rate of new customer acquisition. Had NICTA sought this information, it would have revealed a dynamic mobile telecommunications market experiencing market experiencing growth rates significantly above that of other sectors of the Papua New Guinea economy.

88 **NICTA's analysis is subject to manifest error of law.** The jurisprudence on SMP is clear. Any finding on SMP must be preceded by a correct identification, description and analysis of the relevant market. As set out elsewhere in this submission, NICTA has misidentified the relevant market. Its description of the relevant market manifestly ignores the fact that mobile services are supplied in bundles. NICTA's analysis of the market is flawed, including in its application of the SSNIP test.

89 **NICTA's market power analysis is based on manifest errors of fact.** The evidence relied upon by NICTA to substantiate a conclusion that Digicel has SMP is seriously inaccurate. NICTA concludes that Digicel has SMP based on the following facts (Figure 1 of the Draft Discussion Paper):

- (a) Digicel has a market share in excess of 70%;
- (b) Digicel controls infrastructure not easily duplicated and has national coverage, while bemoile has yet to complete its network build-out;
- (c) the existence of network effects;

- (d) Digicel has economies of scale;
- (e) Digicel is vertically integrated; and
- (f) market entry is easy but there may be commercial barriers to entry.

90 Each of these so-called facts is inaccurate, unreliable and inconsistent.

- (a) The market share data relied upon by NICTA is incorrect as it is based on an incorrect definition of the relevant market (as discussed in section 5 of this submission);
- (b) NICTA concludes that “[A]lthough mobile network platforms are duplicable, more than one network infrastructure may not be economic in many rural and remote regions of Papua New Guinea. This would indicate that there is a first-mover advantage”. This is simply a baseless assumption of NICTA and is inconsistent with the reality of market structures in other similar countries, including in Africa, where multiple nationwide networks are sustainable and effectively competing. Such countries also clearly demonstrate that any first-mover advantage – should it exist - is quickly eroded away. NICTA’s conclusion is also at odds with the coverage licensing obligations imposed on Digicel, bemobile, Greencom (in the past) and (arguably) Citifon. Such obligations demonstrate official views that several nationwide networks are sustainable and are indeed required to be provided.
- (c) NICTA merely asserts the existence of network effects, with no supporting evidence of their actual existence. In addition, network effects do not necessarily lessen competition or confer market power, as with network effects there will be a stronger incentive to compete for customers and increase the size of the network.
- (d) NICTA asserts that a licensee may have cost advantages due to economies of scale. With respect, economies of scale do not in themselves confer any operator with a cost advantage. Competition between operators gives all operators an opportunity to achieve the minimum efficient scale, so no single operator has an inherent cost advantage over the other operators. As previous official decisions regarding roll-out obligations show, there is no basis for assuming that the minimum efficient scale for mobile services is so large as to prevent bemobile or Telikom from achieving the requisite scale. The cost of network equipment is not high and available from international vendors at competitive prices.
- (e) NICTA concludes that “*Digicel’s vertical integration of wholesale and retail operations is relevant and, absent regulation, enables cross-subsidization of retail operations from wholesale revenues*”. It goes on to add that “[F]urther information is required, but the market structure supports the suggestion that Digicel could be dominant”. This is a further baseless assumption of

NICTA and in conflict with common knowledge. This market structure is typical of mobile industries worldwide, yet dominance is rare.

- (f) Although acknowledging that market entry is easy from a regulatory perspective, NICTA concludes that *“the current level of competition coupled with first-mover advantage may be a commercial barrier to new entry”*. This fact is inconsistent when considering that Telikom has itself recently entered the mobile telecommunications market, while bemobile and (arguably) Citifon are subject to coverage obligations similar to those of Digicel. NICTA further assumes that the absence of mobile number portability (“MNP”) implies that there are switching costs. This assumption is manifestly erroneous. There is no evidence that in Papua New Guinea, end users are strongly committed to a given mobile number. Digicel’s experience is to the contrary as end users readily change their mobile numbers.

91 NICTA’s **analysis does not take account of all facts** that ought to be considered and are necessary for a rigorous analysis. A rigorous analysis of SMP requires diligently analysing, for example, barriers to entry and expansion, as well as the maverick nature of bemobile and the new market entry of Citifon. NICTA appears to underestimate the ability of Telikom and bemobile to expand their network coverage and capacity. The supply of network equipment is an intensely competitive market, with suppliers from China (such as ZTE and Huawei) having an active presence locally. Further, the architecture of modern mobile networks is highly scalable.

92 Digicel considers that relevant facts were disclosed in the statement made to Parliament on 24 November 2011 by the Minister for Public Enterprises. The Minister noted that “the management of bemobile has been anything but successful”, that the government was trying “to improve the management of bemobile”. He then prefaced a sad recital of Telekom’s performance with this beginning:

Telikom PNG is one of the worst performing SOEs. Its reputation within the telecommunications industry and with the general public is bad, largely as a result of it failing to meet any of its service quality standards for many years. Under the previous government, the Telikom Board was highly politicised, and this has shown in the way the business has been managed.

93 Mismanagement of bemobile and Telekom is one factor in Digicel’s success. But management failures can be rectified quickly, so this is not a durable situation. Proper, operational competition, with each firm making the most of its assets, could arrive at any moment. There are strong financial incentives for bemobile and Telekom to regain a focus on service and profitability. NICTA needs to recognise the potential for much stronger competition without any further capital investment.

94 **NICTA's analysis is subject to manifest error of assessment** biased for the following reasons:

- (a) NICTA assesses Digicel's market power via a cursory analysis of 19 factors that it believes are indicators of SMP. For all factors, little or no factual information is provided. As with market definition, it is impossible to carry out an assessment of market power in a factual vacuum.
- (b) The fact that Digicel has high market share says nothing about the extent to which it is constrained by existing or potential competitors.
- (c) The fact that Digicel has greater coverage than bemobile reflects strategic choices of the two operators, and coverage obligations imposed by the government. It does not mean that Digicel can act without regard for bemobile. If coverage was a source of market power then Digicel could have higher prices in areas where bemobile does not have coverage. In fact, Digicel's retail prices are the same everywhere within Papua New Guinea. Competition between bemobile and Digicel in the areas where bemobile has chosen to build coverage therefore affects Digicel's prices in all areas, and bemobile is an effective competitive constraint at the national level despite not having a national network.
- (d) The fact that Digicel has greater coverage than bemobile reflects strategic choices of the two operators, and coverage obligations imposed by the government. It does not mean that Digicel can act without regard for bemobile. If coverage was a source of market power then Digicel could have higher prices in areas where bemobile does not have coverage. In fact, Digicel's retail prices are the same everywhere within Papua New Guinea. Competition between bemobile and Digicel in the areas where bemobile has chosen to build coverage therefore affects Digicel's prices in all areas, and bemobile is an effective competitive constraint at the national level despite not having a national network.
- (e) Vertical integration does not by itself generate market power, and in any case NICTA has not analysed the nature of competition at all levels of the vertical chain in which Digicel competes. Moreover, vertical integration is standard in mobile industries while retail dominance is rare.
- (f) NICTA suggests there may be commercial barriers to entry, but has not conducted any analysis to support this conclusion, and NICTA has incorrectly dismissed barriers to expansion as irrelevant.
- (g) NICTA's assessment that "the current level of competition ... may be a commercial barrier to new entry" is manifestly erroneous. Rivalry within the market is manifestly not a barrier to entry. The new entrant does not suffer from a cost disadvantage merely because competition among existing rivals is intense. And in any case, how is intense competition compatible with

there being some kind of competition problem that requires/justifies retail regulation?

- (h) NICTA has not undertaken a prospective analysis of SMP as required by law.
- (i) Most seriously, NICTA's analysis is biased because any factor that may lead to a finding that Digicel does not have market power is dismissed as "not relevant". It is therefore not surprising that NICTA wrongly concludes that Digicel has SMP. In particular, Digicel strongly disagrees with NICTA's treatment of the following factors:
 - i "Absence of potential competition": NICTA concludes that *"Potential competition exists in the form of Telikom, so this consideration is unlikely to be relevant."* NICTA's dismissal of this factor is manifestly erroneous. Potential competition is an important factor that can constrain the market power of existing competitors, and NICTA has acknowledged that potential competition exists in Papua New Guinea. Yet this is ignored, which biases the analysis towards finding that Digicel has SMP.
 - ii "Barriers to expansion": As indicated above, NICTA dismisses this as *"[N]ot relevant, given the current levels of penetration are apparently below saturation levels (but this is arguable)"*. Digicel disagrees that barriers to expansion are not relevant. A critical component of market power assessment is the question of whether rivals can expand their output and thus pose a credible competitive threat. This is another example of a factor that NICTA has ignored which leads to a finding that Digicel does not have SMP.
 - iii "Lack of active competition on non-price factors": NICTA concludes that *"[E]vidence is wanting on whether this is a relevant factor in this case or not"*. Digicel submits that competition on non-price factors is a highly important factor in any assessment of SMP, and especially in mobile markets. In mobile markets, quality, the range of services, customer care, and other non-price factors are important dimensions of competition. Ignoring these dimensions biases NICTA's analysis towards finding that Digicel has SMP.

95 None of these facts alone or in combination can substantiate NICTA's conclusion that Digicel has SMP in any market. A rigorous assessment of market power requires carefully considering barriers to entry and expansion, which NICTA has not done.

Response to questions

(3) Do you agree with the criteria for dominance and the way they have been applied

(as far as the evidence allows) by NICTA?

For the reasons set out elsewhere in this submission, Digicel submits that NICTA's application and analysis of these criteria is fundamentally flawed and biased towards finding that Digicel has market power.

(4) Are there different conclusions on any of the criteria for dominance that you would draw and, if so, what are they?

For the reasons set out elsewhere in this submission, Digicel submits that in the absence of substantial evidence to the contrary, the only reasonable conclusion is that Digicel does not have SMP.

(5) Are there other criteria for dominance that should be considered, and, if so, what are they and how should they be applied in this case?

Please refer to the main body of this submission.

7 Abuse of Market Power

7.1 NICTA has no jurisdiction to inquire into matters concerning abuse of dominance or anti-competitive conduct.

96 At the outset, Digicel notes that the public inquiry into matters concerning whether Digicel's behaviour involves an abuse of a dominant position or is otherwise anti-competitive is beyond NICTA's jurisdiction.

97 Section 157 of the Act authorises NICTA to hold a public inquiry under section 230 into:

- (a) whether a recommendation should be made to the Minister that a **retail service** should be subject to a retail service determination **in respect of an operator licensee**, or that an existing retail service determination should be revoked or varied; and
- (b) if so, the appropriate terms of any such retail service determination, revocation or amendment.

98 Section 159 authorises NICTA to recommend subjecting a retail service to a RSD if (and only if):

"all of the retail regulation criteria would be met by subjecting, or continuing to subject, a retail service to a retail service determination in respect of a particular operator licensee on particular terms". (emphasis added)

99 The RRC set out in section 158 are:

- “(a) that making a retail service determination for the retail service in respect of an operator licensee for a particular period **will further the achievement of the [competition objective and efficiency objective]** set out in Section 124 but disregarding Section 124(2); **and**
- (b) **specifically**, in relation to the competition objective, that —
 - (i) that operator licensee has a substantial degree of power in the market within which the retail service is supplied; **and**
 - (ii) in the absence of the retail service determination for that period, that substantial degree of power is likely to —
 - (A) persist in the market over that period; **and**
 - (B) expose retail customers to a material risk of higher prices and/or reduced service where they acquire the retail service from that operator licensee during that period; **and**
- (c) specifically, in relation to the efficiency objective, that the operator licensee will not be prevented from achieving a return on assets during that period sufficient to sustain investment necessary to supply the retail service; **and**
- (d) the aggregate likely benefits of making that retail service determination outweigh any aggregate likely detriments.”

(emphasis added)

- 100 The RRC are conjunctive. NICTA must be satisfied that **all** the criteria are met. Importantly, the question of an abuse (or misuse) of dominance or market power is **not** part of the RRC.
- 101 However, the subject matter of the inquiry concerns whether to recommend a RSD based solely on a finding as to whether any Operator Licensee and Digicel in particular *“has established retail mobile service prices for on-net and off-net calls and SMS that, because of their levels and/or relationships, are an abuse of a dominant position in the market for domestic mobile calls and SMS or are otherwise anti-competitive and contrary to the objectives of the Act”*. This is not a subject matter that NICTA may lawfully hold a public inquiry on under section 157. The particular matters that NICTA may lawfully inquire on whether to recommend a RSD are the matters set out under the RRC.
- 102 The ToR for the inquiry goes beyond inquiring into the matters that NICTA may lawfully inquire on. They include inquiring into whether Digicel’s pricing of certain retail services are an abuse of a dominant position or otherwise anti-competitive. In the Discussion Paper, NICTA specifically identifies certain types of abuse or anti-competitive conduct in relation to Digicel’s pricing:

“Given the nature of the complaint raised by bemobile, the types of anti-competitive behaviour that a regulator would typically look for are:

- anti-competitive cross subsidy;*
- predatory pricing;*
- excessive pricing (as an abuse of a dominant position); and/or*
- anti-competitive price discrimination?”*

(section 3.3 of the Discussion Paper)

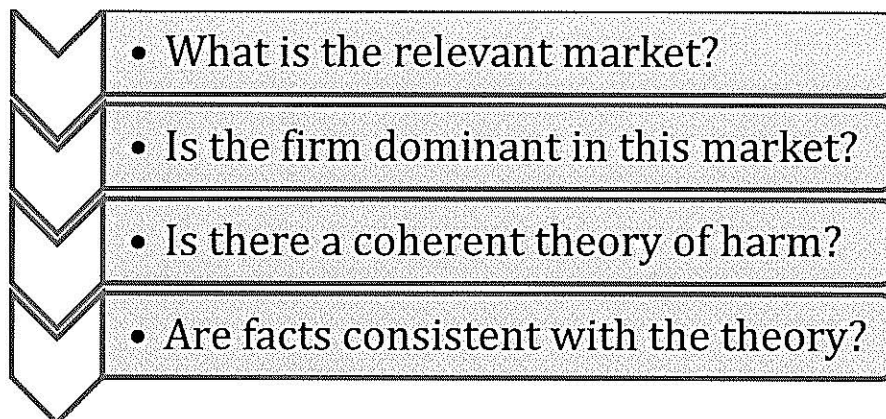
- 103 None of these types of anti-competitive behaviour are relevant to the RRC.
- 104 It is neither necessary nor relevant to any of the RRC for NICTA to be satisfied that Digicel’s conduct is an abuse of a dominant position or otherwise anti-competitive. It is necessary for NICTA to be satisfied that all of the RRC would be met by the recommendation of an RSD. This includes *inter alia* that:
- (a) Digicel has SMP in the relevant market;
 - (b) the SMP is likely to persist over the period of the RSD; and
 - (c) the SMP would expose retail customers to a material risk of harm (in the form of higher prices or reduced services).
- 105 However, nothing in these matters (or any of the other RRC) require or authorise NICTA to inquire into whether Digicel’s conduct is an abuse of a dominant position or otherwise anti-competitive.
- 106 The public inquiry, if it proceeds, will therefore exceed NICTA’s jurisdiction in so far as it concerns whether Digicel’s conduct is an abuse of a dominant position or otherwise anti-competitive as set out in the TOR. NICTA cannot lawfully hold an inquiry into these matters.
- 107 Even if NICTA did have jurisdiction to inquire into these matters, there are serious questions of law concerning the validity of NICTA’s public inquiry. For reasons set out below, Digicel also strongly takes issue with any suggestion that its conduct is an abuse of a dominant position or otherwise anti-competitive. Nothing in Digicel’s submission concerning the questions of law and whether Digicel’s conduct is an abuse of a dominant position or otherwise anti-competitive, is a waiver or abandonment of the threshold question concerning NICTA’s lack of jurisdiction to hold a public inquiry in relation to the ToR as currently expressed.

7.2 NICTA’s theory of harm is not substantiated

- 108 Competition laws and pro-competitive sector-specific legislation and regulations in developed economies generally include provisions that make it an offence to abuse a position of dominance. The aim of such provisions is to impose special obligations on dominant firms to ensure that the process of competition is not impeded, while at the same time recognising that in some markets there will always be dominant

firms. In other words, it is generally not illegal to simply *be* a dominant firm, but it is illegal for a dominant firm to behave in certain ways that harm the process of competition.

- 109 There is an important distinction between protecting the competitive process, which is the aim of competition law, and protecting any individual competitor. Competition is an inherently combative and potentially bruising process. The need and desire to gain an edge over rivals is what leads firms to innovate and continually seek to make better offers to potential customers. Firms that fail to engage in such pro-competitive conduct and provide lower prices and/or better quality offerings run the risk of losing custom and ultimately failing in the marketplace, for good reason.
- 110 Protecting firms from normal and beneficial market forces undermines the discipline of competition. Just as wise parents sometimes practice “tough love”, making a child’s life harder now so they will end up wiser and stronger, promoting effective competition often requires that competition authorities resist the pleadings of firms seeking protection from their rivals. Sound, pro-competitive regulation does not seek to protect inefficient firms.
- 111 Since “harming one’s rivals” is a natural and desirable feature of competition, care is needed before concluding that a firm has gone too far in this respect. Expert competition authorities, Regulators and Courts properly discharge consideration of this issue by following a disciplined analytical process, the key features of which are summarised in the following schematic.



- 112 It is important that those tasked with enforcing pro-competitive legislation carry out this task to a rigorous standard. This is because inappropriate regulatory decisions can adversely affect not only firms that are attempting to compete, but also customers that would otherwise benefit from effective competition and low prices. Within a developing country such as Papua New Guinea, particularly in a sector such as telecommunications, which has only recently been liberalised, there is a danger that inappropriate regulatory decisions increase the risk faced by those investing in the sector and could harm the industry, to the detriment of consumers.

- 113 The first two of the above four analytical steps have been discussed above. Digicel submits that:
- (a) NICTA has not identified the relevant market, but rather just two of the many services that are jointly traded in the relevant market (see section 6); and
 - (b) NICTA's analysis of market power is unsupported by evidence, structurally biased in disregarding evidence contrary to NICTA's finding, and in any case conducted over just a subset of the relevant market.
- 114 Digicel also submits that NICTA has no "theory of harm". It has not even attempted to explain how high Digicel off-net prices might substantially lessen the intensity of competition. Economic profits attract competitors. NICTA is obliged to nurture competition⁷ so before removing a high price by regulation, it should at least be explain the process by which that is expected to promote competition.
- 115 More fundamentally, while consumers certainly would be better off if prices were lower, this matter is not (or not just) about the current prices. It is about the process by which prices are set. NICTA needs to explain why it might be better for a regulator to set Digicel's off-net prices. That would be a coherent theory of harm.
- 116 Since NICTA has not articulated such a theory, and in respect of its own claims has presented at best speculative and un-supported rhetoric, Digicel submits that NICTA has not substantiated a coherent theory of harm.
- 117 Certainly, judging from the Discussion Paper, there is **no evidence that Digicel has abused market power**.
- (a) Digicel agrees with NICTA's conclusion that reference to international call rates is irrelevant for assessing domestic off-net call prices. The cost drivers and demands for these two types of calls are different, so pricing of these services are therefore not comparable. Digicel also agrees with NICTA's findings that Digicel is not engaging in anti-competitive cross-subsidy or predatory pricing.
 - (b) Digicel disagrees with NICTA's preliminary conclusion that there is some evidence that Digicel is engaging in excessive pricing and this is anti-competitive. NICTA claims that "The practice of excessive pricing is considered to be anti-competitive behaviour when it involves a dominant operator charging prices in excess of what it could normally charge in a competitive market." NICTA does not provide any theory of harm to justify why excessive pricing could be anti-competitive. Consumers dislike high prices and a firm that engages in excessive pricing will drive customers to switch to its competitors. This is part of the normal process of competition.

⁷ This may have the side effect of nurturing competitors.

It is therefore difficult to understand why NICTA believes excessive pricing to be anti-competitive.

- (c) We note that NICTA poses the following question: "The basic question that NICTA must address is whether the difference between the costs actually incurred by Digicel and the prices actually charged by Digicel is excessive." We are not convinced that this is a relevant question. However, even if it is, NICTA's evaluation of this question is based on a highly simplistic comparison of prepaid off-net retail prices against termination rates. Digicel submits that this comparison provides no information about whether prices are excessive, for the following reasons:
- i NICTA has not clearly defined what it means by "excessive" pricing, nor has it considered what margins are necessary to provide an appropriate return on network investment in Papua New Guinea and promote further expansion of coverage and improvement of services;
 - ii Digicel competes by supplying a bundle of retail mobile services. The correct comparison is therefore of the total bundle revenue against total bundle costs. Some parts of the bundle may be more profitable than others (this outcome would be normal in a competitive market), but viewed in the context of the correct market definition, the price of the bundle as a whole may not be excessive.

Response to questions

(6) Do you agree with NICTA's preliminary treatment of the arguments based on the relativities of national mobile and international call charges? If not, please explain how, in your view, the relativities can be used to show that Digicel is abusing a position of dominance in a market?

Digicel agrees with NICTA's conclusion that comparisons of international and national call charges are irrelevant.

(7) Do you agree with NICTA's preliminary analysis on whether Digicel is cross-subsidising in a manner that could be or is an abuse of dominance? If not, please provide your own view and analysis, including what NICTA should do about it.

Digicel agrees with NICTA's conclusion that Digicel is not engaging in anti-competitive cross subsidies.

(8) Do you agree with NICTA's preliminary view and analysis that there is no evidence that Digicel is predatory pricing? If not, please provide your own view and analysis, including what NICTA should do about it.

Digicel agrees with NICTA's conclusion that Digicel is not engaging in predatory pricing.

(9) Do you agree with NICTA's preliminary view and analysis on whether Digicel is

engaging in excessive pricing? If so, what should be done about it by NICTA? If not, please provide your own view and analysis.

Digicel does not agree with NICTA's preliminary view and analysis on excessive pricing, for the reasons discussed elsewhere in this submission.

(10) In your view, is there any indication of anti-competitive price discrimination by Digicel?

For the reasons set out elsewhere in this submission, there is no evidence that Digicel is engaging in anti-competitive price discrimination.

8 Content of a retail services determination

118 **The absence of a proposed RSD undermines the public inquiry.** Although NICTA observes that the purpose of the public inquiry is to determine whether NICTA should recommend subjecting particular retail services to a RSD, the discussion paper does not indicate what the proposed RSD is. NICTA explains the absence of an RSD from the discussion paper in the following way:

In the present case, it is too early to consider the nature or content of any retail service determination in any detail. NICTA is currently concerned primarily with determining the relevant market, determining whether Digicel or any other licensee has SMP in that market, and determining whether any licensee with SMP is engaging in any anti-competitive retail pricing behaviour in the relevant market. NICTA's response to positive findings (may or may not involve a retail service determination) will depend on what is discovered during the inquiry. If NICTA's forms a view that a retail service determination may be appropriate, then that will be the subject of a specific consultation exercise as part of the present inquiry process.

119 With respect, there are two problems with the approach taken by NICTA:

- (a) First, NICTA cannot form a view on whether a RSD is "appropriate" without reference to the RRC. As explained elsewhere in this submission, an assessment under the RRC necessarily involves a consideration of two hypothetical future situations, one in which an RSD is made (**factual**) and one without the RSD (**counterfactual**). Rather than forming a view on whether a RSD is "appropriate", the most NICTA can look into is what the relevant market is and whether any operator licensee has a substantial degree of power in that market. This alone cannot lead to a view as to whether a RSD is appropriate.

- (b) Second, NICTA appears to have developed its own basis for determining whether a RSD is appropriate. That basis appears to involve a consideration of matters (concerning anti-competitive pricing behaviour) that NICTA has no jurisdiction to consider under the Act.

120 **The proposed principles to guide analysis and regulatory decision-making are insufficient.** These principles, which “reflect NICTA’s general disposition to retail price regulation”, are:

- Principle 1: NICTA believes that retail prices are best determined by market forces provided that those markets are effectively competitive.
- Principle 2: NICTA will be cautious about imposing retail price controls where a market is still developing and where those controls may distort market development and investment.
- Principle 3: NICTA would prefer to refrain, if practicable, from intervening in the setting of retail prices and instead facilitate retail competition where it is necessary to do so through the regulation of wholesale markets.
- Principle 4: If retail prices are predatory or excessive, NICTA would prefer to set price constraints in a form that still provides market participants with some flexibility in the setting efficient prices rather than establishing absolute price floors and/or price ceilings.
- Principle 5: NICTA will not set retail price floors and ceilings based on the retail prices of other market participants unless those prices can be shown to be relevant, efficient and competitive.
- Principle 6: If there is inadequate competition (i.e. dominance) in a retail market, and some form of regulatory intervention is considered necessary, NICTA will adopt measures that encourage greater and more effective competition either between existing operators or by encouraging the entry of additional competitors. NICTA considers that such an approach is likely to be more effective than simply adjusting the competitive balance between existing operators through retail price controls.

121 The principles proposed by NICTA are interesting and potentially to be welcomed to the extent they reflect a general disposition in favour of recognising “the effectiveness of market forces in promoting consumer welfare” as is required under section 3 of the Act.

122 However, whatever their merits, they are clearly not sufficient to guide regulatory analysis and decision making. Perhaps the most obvious omission is that there is no reference to the use of a proper and disciplined analysis of competition and efficiency with and without any proposed regulations. Such analysis is explicitly required by part (d) of the RRC and is widely accepted internationally as being part of sound regulatory practice.

Response to questions

(11) How should NICTA assess whether or not retail customers will be exposed to ‘a material risk of higher prices and/or reduced service’ in the absence of a retail service determination for the purposes of section 158(b)(ii)(B) of the Act?

The assessment should be “evidence based” as set out more fully in section 5 of this submission.

(12) What are your views on the six principles proposed by NICTA to guide its intervention in pricing in retail markets?

Please refer to section 8 of this submission.

9 Conclusion

- 123 Digicel has serious concerns about the Inquiry as it is currently constituted. Digicel submits that the current process has serious legal flaws, is poorly grounded in terms of its economic reasoning and, if it is allowed to continue, will cause serious harm to the industry and negatively impact on the people of Papua New Guinea.
- 124 In particular, Digicel is concerned that the Inquiry fails to take into account the RRC and traverses issues that are irrelevant to making any recommendation to the Minister with respect to whether or not a RSD should be made.
- 125 Digicel respectfully requests that NICTA, after taking into account the issues raised in this submission, terminates the Inquiry and permits the industry to continue to develop in accordance with the incentives and constraints that are imposed by normal commercial market forces.
- 126 Finally, Digicel encourages NICTA to focus on dealing with the more fundamental regulatory issues that need to be resolved in order to support the continued growth of the industry rather than bowing to pressure from less successful market participants that would prefer to make progress through regulatory hand outs rather than their own commercial excellence. Box 1 sets out a number of issues that NICTA should address as a matter of priority.

Numbering Plan:

- **Issue:** PNG is currently using 7-digit base. There is an urgent need to move to an 8-digit base. Operator licensees’ plans to offer new products and services are being held up. NICTA should commence public consultation on the numbering plan by January 2012.
 - **Impact of delay:** Immediate impact is to hold up investments requiring 8-digit numbers (including for “fixed wireless” services). In addition, to the extent investments have or are being made based on 7-digit numbers, additional costs need to be incurred to migrate the affected products to 8-digit numbers.

Spectrum Migration:

- **Issue:** Spectrum migration is still underway. It is currently scheduled to be completed by December 2012. However, this timing seems unlikely to be met.

- **Impact of delay:** Delay is creating uncertainty for operator licensees. The uncertainty potentially affects financing arrangements with lenders and investors who are concerned to ensure that operator licensees' right to use spectrum is secure.

Digital Dividend:

- **Issue:** Parts of spectrum in the 700 MHz range is currently occupied by analogue users. NICTA is in the process of refarming this spectrum. Digicel seeks an allocation in this range for LTE.
 - **Impact of delay:** Holds up investment in LTE; delays introduction of LTE to end users in PNG.

License migration:

- **Issue:** Not all operator licensees have migrated to the new licensing regime. Those that have are still holding discussions with NICTA on the standard licensing conditions and special licensing conditions.
 - **Impact of delay:** The delay in completing license migration contributes to regulatory uncertainty. More significant are concerns over whether a "level playing field" applies to operator licensees. In particular, the conditions relating to network coverage should be the same for all mobile operator licensees.

Enforcement of network coverage obligations:

- **Issue:** Digicel is also concerned that NICTA is not enforcing network coverage obligations with respect to bemobile and Telikom.
 - **Impact of delay:** This places Digicel at a considerable competitive disadvantage, as it has been required to build mobile infrastructure in many areas that are unprofitable. Equally significant is that many potential end users in rural and remote areas are deprived of mobile communications to the extent Telikom and bemobile have not been required to build infrastructure in areas not covered by Digicel's network.

Access to capacity on international cables:

- **Issue:** The moratorium on declaration of access to capacity on international communications cables expires on 30 June 2012. It would be appropriate for NICTA to commence an investigation now into whether or how access to international capacity can be facilitated through declaration of the service.
 - **Impact of delay:** International capacity is currently a serious bottleneck in PNG. Telikom has a monopoly over submarine cable and is limiting its supply with the effect of maintaining artificially high prices and degrading quality for international capacity. As well as putting its competitors at a disadvantage, Telikom's actions are seriously affecting the roll out of high speed data services.

Schedule 1 Glossary

Act or National ICT Act 2009	National Information and Communications Technology Act 2009
Constitution	Constitution of the Independent State of Papua New Guinea
RSD	Retail Services Determination
RRC	Retail Regulation Criteria
ToR	Terms of Reference

Schedule 2 Mobile services and long-term productivity of a developing economy

3.1 Impact studies linking mobile diffusion to economic growth

An impact study by Fuss, Meschi and Waverman (2005)⁸ reported that:

“... mobile telephony has a positive and significant impact on economic growth, and this impact may be twice as large in developing countries as compared to developed countries.

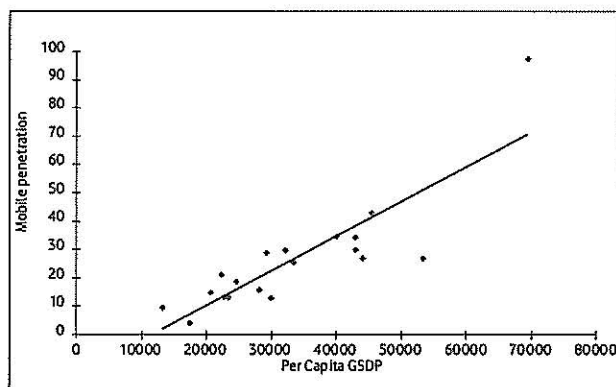
... All else equal, the Philippines (a penetration rate of 27% in 2003) might enjoy annual average per capita income growth of as much as 1% higher than Indonesia (a penetration rate of 8.7% in 2003) owing solely to the greater diffusion of mobile telephones, were this gap in mobile penetration sustained for some time.”

A more recent econometric analysis on the impact of mobiles in India by Kathuria, Mamta and Uppal 2009⁹ conclude that:

- Indian states with higher mobile penetration can be expected to grow faster, with a growth rate of 1.2% points higher for every 10% increase in mobile penetration.
- There is evidence of a critical mass, around a penetration rate of 25%, beyond which the impact of mobile on growth is amplified by network effects. This means there is an important threshold for policy makers.

Kathuria, Mamta and Uppal reproduce the following Figure 1 indicating a positive relationship between GDP per capita and mobile density across Indian states.

Figure 1: Mobile density and Per Capita Income across Indian states



Source: TRAI, CSO; data for March 2008. Mobile density is subscriptions per 100 population

⁸ Fuss, Meschi and Waverman 2005, The Impact of Telecoms on Economic Growth in Developing Countries, published in the Vodafone Policy Paper Series Number 2 March 2005, Africa: The Impact of Mobile Phones.

⁹ Kathuria, Mamta and Uppal (2009), An econometric analysis of the impact of mobile, published in the Vodafone Policy Paper Series Number 9 January 2009, India: The Impact of Mobile Phones. This Policy Paper also includes other papers documenting the contribution of mobiles to agricultural productivity and the impact on productivity in the SME sector.

In an unpublished paper written on 2006, Martin Cave and Chris Doyle reviewed the literature and summarised the impact of liberalisation (relative to a closed monopoly) on economic growth in the following way:

Year	Difference in mobile penetration (%) compared to monopoly	Increase in per capita growth of a middle income SID economy (%)	Cumulative increase in GDP from base year 0 (%)
1	5	0.15	0.15
2	10	0.3	0.45
3	10	0.3	0.75
4	10	0.3	1.05
5	15	0.45	1.51

Table 2: Additional penetration and growth of GDP associated with competition in mobile telecommunications and higher mobile penetration. (The figures reported are indicative of the order of benefits that competition can bring.)

3.2 Transmission mechanisms linking mobile diffusion to economic growth

According to Cave and Doyle, the literature describes a number of transmission mechanisms that link mobile diffusion to economic growth:

- Mobile communications in the hands of households and firms can help overcome the information deficit. As a result, markets become less exploitative and more competitive. Incentives to produce and sell output grow.
- Mobile communications reduce transaction costs. Telephone calls replace face-to-face contact. As a result, costs are saved and business and personal contact speeded up.
- Better mobile communications can make a country more attractive to tourists.
- There is some evidence that roll-out of mobile services is linked with higher levels of foreign direct investment.
- Mobile communications can assist in delivery of health care and education, by improving access to expertise.