Submission to the Ministry of Economic Development (**Ministry**) on the Rural Broadband Initiative (**RBI**) Non-Discrimination Consultation March 2011

29 March 2011

Contents

1. INTRODUCTION

1.1 2degrees welcomes this opportunity to comment further on the joint RBI bid presented by Vodafone and Telecom (**Vodafone/Telecom Bid**).

1.2 We understand that the Ministry is currently negotiating an RBI contract with Vodafone (**Vodafone Contract**) and wishes to ensure that the open access regime currently under negotiation provides for third party access to RBI infrastructure on terms that "will promote competition" for end-users and deliver the "strict open access rules" emphasised by the Minister.

1.3 We welcome further scrutiny by the Ministry of the critical issues of infrastructure access and competition.

1.4 The success of the RBI will be measured not only on the delivery of wireless broadband services to our rural communities, but also on whether RBI funding is efficiently deployed on terms which secure future competition for both rural broadband services and mobile services generally.

1.5 The consultation paper provides additional information on certain issues raised at the TCF workshop, which is appreciated. However, there remains a lack of transparency of the full Vodafone/Telecom Bid and the Vodafone Contract.

1.6 The consultation provides only a high level summary of the proposed co-location regime and the paucity of public information continues to limit our ability to provide meaningful comment. Co-location is a technical and complex process which is open to regulatory gaming and abuse. The devil is most certainly in the detail, which to date the Ministry has failed to make available for public scrutiny. There is no downside (and considerable upside in terms of achieving a competitive outcome) from releasing the Vodafone/Telecom Bid and the Vodafone Contract for consultation.

1.7 On the information which has been provided, we remain of the view that the proposed co-location regime is both inefficient and ineffective, raising material barriers to competition for both rural broadband services and mobile services generally.

1.8 We set out our detailed comments in the remainder of this submission, focusing on whether the proposed approach to co-location would be effective in providing fair access that will promote competition (question 3 in the consultation paper).

1.9 In short, the proposed approach to co-location:

- Excludes lower-cost alternatives such as antennae sharing and national roaming access to RBI infrastructure.
- Introduces barriers to entry through high-cost access and technical barriers to co-location that will stifle competition.
- Is prefaced on Vodafone obtaining RMA and land-owner consent for the new "co-location ready" towers with no guarantee or supporting information on the process to be followed if that consent is not obtained.

- Fails to account for the fact that Vodafone will not be able to meet the design characteristics of the majority of the new towers dues to RMA constraints. In these circumstances it would be entirely unacceptable that the co-location requirement be exempted from sites which fail to meet the design characteristics, or that access seekers be required to incur private costs to duplicate RBI funded infrastructure in the form of a second (or potentially third) tower. If this was the case (absent a national roaming obligation) Vodafone would be the recipient of a publicly funded network upgrade suitable only for Vodafone's exclusive use.

- Provides no information on the characteristics of the 380 existing Vodafone towers which will benefit from an RBI funded upgrade. We estimate up to 50% of these towers are unlikely to be capable of supporting co-location by 2degrees.

- Fails to provide an upgrade path for imminent LTE services. There appears to be no reservation on new towers for LTE equipment, which will also be incompatible with the majority of the existing towers.

- Delivers a publicly funded competition uplift to Vodafone, to the detriment of competition for both rural broadband and mobile services generally.

1.10 We recommend:

- The Ministry negotiate with Vodafone for access on the basis of the more efficient infrastructure sharing techniques of antennae sharing and national roaming in addition to the proposed co-location regime. National roaming access will address many of the competition concerns of 2degrees, as well as the very material concerns regarding RMA, landowner consent and technical barriers inherent in the current proposal.

- Consultation with industry on changes which should be made to the existing Mobile Co-Location STD to provide for co-location on publicly funded infrastructure as opposed to private assets.

- That co-location be moved from a specified to a designated service under the Telecommunications Act.

1.11 The quality of the draft open-access principles is poor. We hope - and seek assurances - that the full specification document of which the consultation appears to be a simple summary, has been drafted with the assistance and input of an international co-location expert who is independent of Vodafone, Telecom and the Ministry.

1.12 In the limited time available we have been unable to obtain a full report from an independent tower expert. However, we have consulted Roger Hawke, CEO of 3rd party tower owner and co-location experts, Crown Castle Australia Limited. Crown Castle has assisted us in our consideration of the proposed co-location regime. Like 2degrees, Crown Castle considered the consultation document to raise more questions than it answered.

1.13 We believe the proposals and will have a serious adverse impact on competition and the very principle they seek to address – that of fair and open access.

1.14 We reiterate our request that the full Vodafone/Telecom Bid and the Vodafone Contract (minus sensitive price information) be made available for consultation.

1.15 We are available to discuss any matter raised in this consultation response, our submission to the Select Committee or the accompanying Frontier Report at the convenience of the Ministry.

2. VODAFONE CO-LOCATION SERVICES

General comments

2.1 In this section we set out our general comments on Part F of the consultation.

2.2 We set out our further specific comments by reference to the Ministry sub-headings used in Part F later in this response at section 3 (cell tower characteristics), section 4 (build and co-location processes) and section 5 (co-location pricing).

Lack of transparency continues to undermine the consultation process

2.3 We acknowledge that additional information regarding the Vodafone/Telecom Bid and the proposed Vodafone Contract has been provided in the consultation document. However, the information that has been provided is limited to a high level summary of the proposed Vodafone co-location process and remains insufficient to support a full response to the Ministry's questions.

2.4 Less than two pages of further information has been provided on the open access framework intended to address material concerns raised by industry and deliver the benefits of competition to consumers – with only a single paragraph dedicated to co-location pricing.

2.5 Far greater transparency is required. For example, while further information is provided on the proposed characteristics of the 150 new towers to be constructed by Vodafone, no detail has been given on the existing 380 towers comprising more than 2/3rds of the towers to be utilised under the proposed co-location regime.

2.6 We understand existing towers are to be "upgraded" but the nature of the upgrade is unclear, as is the extent to which the "upgraded" towers will in fact support co-location of radio equipment by third parties.

2.7 Our experience of co-location to date is that less than half of the existing Vodafone towers are likely to support co-location by 2degrees. The Vodafone/Telecom Bid therefore delivers an immediate (and publicly funded) upgrade to the Vodafone network without any corresponding access to a large proportion of the RBI subsidised infrastructure.

2.8 The continuing lack of transparency leaves our concerns regarding the potential harms to competition arising from the Vodafone/Telecom Bid unanswered. As noted in our submission to the Select Committee, we are effectively being asked to trust the Ministry to ensure that our interests are not adversely impacted. This is not a satisfactory position for 2degrees due to the specialist subject matter before the Ministry and the conflicting interests at stake.

2.9 We reiterate our request that the full Vodafone/Telecom Bid and the Vodafone Contract (minus any sensitive pricing information) be released for consultation.

2degrees has a proven track record of delivering robust competition

2.10 2degrees has invested heavily in network infrastructure and entered the market by cutting the price of pre-pay calling and texts, introducing much

needed competition to a market previously characterised by some of some of the highest prices and lowest usage in the OECD.

2.11 Our products and services are driving broadband use via affordable, high-spec smart-phones and rural customers are a key future market for our mobile data-services. We are highly motivated to see a competitive market for the delivery of rural services, and to ensure there are no unintended negative consequences for competition arising from the Vodafone/Telecom Bid.

2.12 Our concerns regarding the potential unintended consequences of the Vodafone/Telecom Bid were discussed at length in section 2 of our submission to the Select Committee. We summarise our key points from that submission as they relate to the current consultation below and urge the Ministry to separately review our full submission to the Select Committee.

The RBI will impact competition for both rural broadband and other mobile services

2.13 Vodafone has not sought a direct contribution for the delivery of the "last mile" of the mobile fixed-wireless solution. This leaves Vodafone in control of both the fixed-wireless broadband product (to be made available for re-sale) and all other mobile services Vodafone will sell over subsidised RBI infrastructure.

2.14 Both the fixed-wireless and other mobile services offered by Vodafone will compete directly with the services provided by 2degrees.

2.15 The RBI therefore has an impact on competition for not only fixed-wireless broadband services, but also:

- mobile voice services;
- SMS (text) services;
- mobile data services;
- wireless fixed-line replacement services;
- mobile broadband services; and
- future rural services to be deployed over next generation networks.

2.16 It does not appear that the impact of the RBI, and the competitive uplift in the broader mobile market gained by Vodafone through the RBI grant, have been taken into account by the Ministry.

Co-location is expensive and raises barriers to competition

2.17 Vodafone say that the ability to co-locate radio equipment on new or upgraded Vodafone towers will ensure competition. We disagree. Co-location is the most expensive and inefficient of the available infrastructure sharing regimes and raises material barriers to competition.

2.18 We estimate the costs of co-location to be in the region of NZ$100,000 per tower (assuming co-location is possible on all towers (which we consider unlikely in relation to a large number of the existing Vodafone towers to be upgraded as part of the Vodafone/Telecom Bid). This compares to less than NZ$10K per tower for radio access network sharing, and less again for access via a national roaming arrangement.

2.19 As a result of the RBI funding, Vodafone will be able to provide a full suite of mobile voice, text and data services to rural consumers, but the case for network entry by additional players would be marginal at best. The population coverage that each site provides will be very low, thereby increasing the

market share required to achieve minimum efficient scale. The cost of access to RBI infrastructure is therefore a key factor in the likelihood of future competition for mobile services in rural areas.

2.20 While it appears the proposed "up-front" financial commitment to secure co-location access indicated by Vodafone at the TCF Workshop has been removed, it remains unlikely a new entrant like 2degrees would commit significant capital resources to co-location in rural areas in advance of completing its core network roll-out.

2.21 Even if costs were not an issue, Vodafone (and Telecom) will benefit substantially from a first mover advantage in acquiring customers. This will serve to make it even harder to build the customer base required to achieve minimum efficient scale, further reducing the likelihood of future competition.

The Vodafone/Telecom Bid inefficiently deploys public funds

2.22 We discuss the likelihood of Vodafone obtaining the necessary RMA and land-owner consents required to construct all of the proposed new towers to meet the characteristics described in the consultation document in section 3 below. Even if Vodafone were able to obtain the necessary consents for all new towers (which we consider highly unlikely) in the event that co-location did not occur there would have been a significant over-build of RBI infrastructure (and a corresponding waste of public funds).

2.23 Our experience of the RMA process is that there will undoubtedly be instances where the necessary consents for "co-location ready" towers cannot be obtained. It is not clear from the consultation how access will be provided in these circumstances. This should be carefully explored by the Ministry with Vodafone.

2.24 A national roaming (or antennae sharing) obligation would address this issue, ensuring both the efficient deployment of public funds and a competitive outcome for end-users.

Intangible benefits have not been taken into account

2.25 We commissioned Frontier Economics (**Frontier**) to review the unintended consequences, intangible benefits and implications for competition that could arise from the Vodafone/Telecom Bid and the proposed changes to the Telecommunications Act set out in the Bill and SOP.

2.26 The report prepared by Frontier was submitted to the Select Committee and a copy is **attached** for ease of reference by the Ministry.

2.27 Frontier find that the winning RBI bidder would likely enjoy two significant benefits that will enhance its ability to compete in retail markets:

(a) The indirect (both tangible and intangible) benefits that come from being a network provider with increased national coverage; and

(b) The benefits that come from being the natural monopoly provider of network services in rural parts of the country.

2.28 These benefits will likely extend beyond the rural areas where network infrastructure is actually deployed (i.e. the cities will become less competitive as a result).

2.29 Frontier state that it is only reasonable that other telecommunications operators should be able to share in some of the indirect benefits of increased network coverage that they are helping to contribute to (as it is majority funded by the industry levy rather than the public purse).

2.30 The fact that national roaming as the appropriate access regime has not been proposed here, as it was in Australia, (and is in other countries such as France for rural coverage) is highlighted as a concern throughout the paper.

2.31 We agree with Frontier's conclusions and believe that absent a national roaming condition to ensure the delivery of efficient infrastructure sharing and the enjoyment of low cost competition for mobile broadband and other mobile services in rural areas, an opportunity to bring competition to rural New Zealand will be lost.

2.32 A national roaming condition on RBI infrastructure in addition to the tower co-location solution would alleviate many of the competition concerns of 2degrees. The condition would need to apply to all cell sites that receive government funding and remain in place for the duration of Vodafone's current 2G and 3G (900 MHz, 1800 MHz, and 2100 MHz) Management Rights and, if Vodafone should be beneficiaries, any future LTE Management Rights.

3. CELL TOWER CHARACTERISTICS

3.1 In the following sections 3 to 5 we comment on the specific co-location access regime described in part F of the consultation by reference to the sub-headings and paragraph numbers used by the Ministry.

3.2 From the outset we note that part F describes the obligations that the Crown proposes to agree with Vodafone on a general basis only. It is not clear whether the information provided is a high-level summary of the intended obligations, or sets out the proposed obligations in full. We sincerely hope it is the former. Far more detailed obligations will be required to ensure Vodafone complies with any co-location obligations ultimately concluded with the Crown.

3.3 The information provided lacks the level of detail required for robust consideration by our civil engineers, radio network and other technical experts. For example, there are a number of engineering issues related to tower design, build and construction which require scrutiny to ensure effective co-location, together with technical issues such as radio spectrum interference that require consideration by appropriate experts.

Paragraph 29:

- *No information is provided on the characteristics of existing Vodafone towers*

3.4 No information has been provided on the characteristics of the existing 380 towers comprising more than 2/3rds of the total towers to be utilised under the proposed co-location regime.

3.5 We understand existing towers are to be "upgraded" but the nature of the upgrade is unclear.

3.6 Our experience of co-location to date is that less than half of the existing Vodafone towers are likely to support co-location by 2degrees without material further costs associated with tower alterations, strengthening work and costs incurred to ensure continuity of service while this work is undertaken. For example, additional costs may include hiring a COW (cell site on wheels) or scaffolding to mount Vodafone antennae while a tower head-frame is replaced to accommodate co-location.

3.7 The cost of co-location on existing towers is therefore likely to exceed the costs of the radio equipment alone. For example, a recent co-location undertaken by 2degrees on a Vodafone site in Wellington required NZ$25,000 of alterations to prepare the site for co-location. These costs were in addition to the radio network equipment and other standard co-location costs bringing the total cost of co-location on this site to well above the NZ$100,000 co-location cost per site discussed above.

- *RMA and land-owner consents are unlikely to be obtained in all cases*

3.8 The tower design characteristics set out in paragraph 29 are subject to Vodafone obtaining any necessary resource consent and land-owner authorisations.

3.9 Resource consent and landowner issues are common in relation to tower construction and we believe Vodafone will be unable to meet the design characteristics on the majority of the proposed towers due to RMA constraints.

3.10 There are often specific consenting issues in the rural environment, such as preserving ridgelines, and local authority decision makers are reluctant to make decisions which will be unfavourable with the local community.

3.11 Our network planning team estimates that up to 90% of the proposed new towers will face some form of constraint through the consent and authorisation process that may impact Vodafone's ability to meet the design characteristics set out in paragraphs 29.1 to 29.3.

3.12 We note that of our 500 existing sites, only 3 are 35 metres or greater in height and that head-frames and carousels of themselves regularly raise consenting issues.

3.13 There is also a risk that the consenting process could be used to limit tower design and increase the costs of co-location at a later date. No information has been provided on the proposed access regime or process that will apply in the likely event that Vodafone is unable to obtain resource consent or land-owner authorisation in respect of a specific tower or towers.

3.14 As a minimum there needs to be a robust process for the Commerce Commission to manage when Vodafone may use any exemption to the design characteristics. All RBI funded towers must support open-access without additional costs being incurred by access-seekers.

3.15 It is unacceptable that the co-location requirement be exempted from sites which fail to meet the design characteristics, or that access seekers be required to incur private costs to duplicate RBI funded infrastructure in the form of a second (or potentially third) tower. If this was the case (absent a national roaming obligation) Vodafone would be the recipient of a publicly funded network upgrade suitable only for Vodafone's exclusive use.

3.16 It is naive to assume that resource consent and land-owner authorisations will be available in all, or even the majority, of cases. This ignores the reality of the consenting process in New Zealand. We consider co-location to be fraught with risk and incapable of delivering fair and open access to RBI funded infrastructure.

3.17 If Vodafone cannot guarantee all new and existing towers will support co-location the Crown must negotiate an alternative access obligation. If it fails to do so access-seekers will be at a coverage disadvantage or forced to duplicate with private funding the publicly funded RBI infrastructure. A national roaming obligation is therefore essential to ensuring competition.

- *LTE is imminent and must be provided for*

3.18 LTE services are imminent and it is not clear that the proposed cell tower characteristics provide for LTE radio equipment.

3.19 The funding of towers that are not pre-strengthened for the weight requirements of LTE equipment would be irresponsible and could see rural customers left behind in technology upgrades that could directly benefit rural areas even before the RBI roll-out is complete.

3.20 GSM mobile based Next Generation Networks follow an industry standards innovation path called 3GPP. The 3GPP standards anticipate that mobile services will be able to deliver LTE (**Long Term Evolution**) Advanced services in approximately 5 years time.

3.21 LTE advanced is likely to deliver mobile capabilities in the region of 1Gigabyte per second – far in excess of the Government's minimum requirements for RBI. The 3GPP capability path is already being deployed in other parts of the world and New Zealand is unlikely to want to fall behind. Indeed, spectrum is being freed up here in New Zealand over the course of the next two years that is earmarked for LTE service delivery.

3.22 LTE and LTE Advanced service delivery requires more antennas per operator.

3.23 It is likely that as a minimum, 3 sets of 3 antennas will be required per carrier (or 27 antennas per three carrier cell tower). Each antenna (for 700MHz) is currently 2.7M long by 0.5M wide and 0.4m deep.

3.24 The monopole tower structures proposed for the RBI by Vodafone during the TCF Workshop appeared to be only capable of holding a fraction of the likely needs of operators in just a few years time and it is not clear that the tower characteristics set out in the consultation address LTE.

3.25 Paragraph 29.2 refers to towers being of sufficient strength to enable the additional of a mast extension and associated antennae of up to 5 metres. It is not clear if this is intended for LTE services as only limited technical information is provided. We would require information on the loading limit for the towers themselves and the proposed extension in order to assess whether the proposed towers meet the requirements of existing technology and imminent LTE requirements.

Paragraph 29.1.1 – 29.1.2

- *Location of equipment on the tower impacts coverage and competition*

3.26 Paragraphs 29.1.1 and 29.1.2 provide for at least three operators across two levels of the tower, and at least three other operators at lower positions on the tower.

3.27 The location (and in particular height) of radio equipment on the tower has a material impact on service coverage, a critical element of network competition.

3.28 No technical information has been provided to support the proposed design characteristics. We are therefore unable to comment directly on whether the design characteristics provide for fair and open access.

3.29 No doubt Vodafone will secure the most favourable (highest) location on the tower for its own radio equipment. We have no way of determining whether 2degrees (or other operators) will be at a coverage disadvantage due to the tower position made available to them, or how tower locations will be allocated between networks.

3.30 Co-location is a technical process which presents numerous opportunities for gaming of technical standards to obtain a competitive advantage.

3.31 It is therefore important that the Ministry negotiate obligations on Vodafone to ensure all tower locations provide equivalent coverage and that access-seekers will not be at a competitive disadvantage due to the location of their equipment on the tower.

3.32 The fact that RBI infrastructure is publicly funded requires that no access seeker is disadvantaged by location on the tower.

Paragraph 32

- *There should be no further tower costs for access seekers*

3.33 Paragraph 32 provides that once a tower has been constructed in accordance with the design characteristics any further infrastructure required by an access-seeker to support co-location will be at the cost of the access-seeker. The examples given are a second head-frame or a mast extension.

3.34 First, it is not clear how this obligation will interact with the proviso at paragraph 29 regarding consenting and land-owner authorisation.

3.35 Where the consenting process restricts tower specification and as a consequence further tower infrastructure is required to support co-location this is not "additional" infrastructure and should not be at the cost of the access-seeker. This would not be open-access to RBI infrastructure and would increase the costs of co-location due to insufficient tower specification.

3.36 Requiring an access-seeker to incur infrastructure costs avoided by Vodafone would restrict competition and disadvantage access-seekers seeking to co-locate on publicly funded tower assets.

3.37 Second, the requirement that an access seeker fund any mast extension required for co-location also increases barriers to entry by increasing co-location costs. Vodafone would not incur these costs, indicating that if a mast extension is required to facilitate co-location the tower design is insufficient.

3.38 Co-location is a technical process which presents numerous opportunities for access-providers to increase the costs of access-seekers and obtain a competitive advantage. Consideration of the technical detail by an independent New Zealand co-location expert engaged by the Ministry to assist in the current negotiation process is required.

Paragraph 33

- *Antennae and RAN sharing obligations should be mandatory*

3.39 We strongly object to paragraph 33, which provides that operators will be able to share antennae or RAN if they wish, but there will be no obligation to do so. RAN sharing (through national roaming arrangements) is required to ensure fair and open access and promote competition.

3.40 Vodafone say that open access to the radio network is not required as no contribution from the RBI was sought for this element of the mobile solution. This is incorrect and fails to take into account the intangible benefits and competition uplift to Vodafone achieved through the RBI.

3.41 These intangible benefits do not appear to have been taken into account in determining the level of the grant or the appropriate open access regime.

3.42 National roaming is not only the most efficient access regime, and the most pro-competitive, it is required to overcome the very material risk that Vodafone will be unable to obtain the necessary resource consents and land-owner authorisations required to deliver all towers to the stated design characteristics and the likely unsuitability of many existing towers for co-location.

3.43 Even if full access to the Vodafone Contract was made available in order that the technical tower specification and co-location process could be reviewed in detail, there will remain material risk around an open-access regime which relies entirely on co-location.

3.44 We are therefore firmly of the view that a national roaming obligation is required in addition to the co-location process to ensure fair and open access.

4. BUILD AND CO-LOCATION PROCESSES

Paragraph 34

- *The basis of the proposed "collaborative process" is unclear*

4.1 Paragraph 34 states that Vodafone will use a "collaborative process" set out in a schedule to the Vodafone Contract to determine the design of the infrastructure to be deployed.

4.2 The schedule has not been provided and we are unable comment on whether the proposed process will assist in the delivery of fair and open access.

4.3 Sub-paragraphs 34.1 and 34.2 summarise the obligations set out in the schedule, referring to obligations to maintain an online database of RBI sites and give notice of preferred site locations.

4.4 Maintaining a database and providing notice of site locations does not equate to a "collaborate process". There is no indication from the information provided that Vodafone will be under any obligation to consult with access-seekers or take into consideration or accommodate access-seeker requirements in relation to tower design or location. To the contrary, the "collaborative regime" appears to be a one-way notice regime only.

4.5 As a minimum, access-seekers require input on tower height and location and a robust process to ensure access-seeker requirements are taken into account in the roll-out of publicly funded infrastructure intended to be available on a fair and open basis. Notice of how Vodafone intends to unilaterally roll-out an RBI funded network upgrade is not "collaboration".

Paragraph 35

The co-location proposal provides a significant first-mover advantage to Vodafone

4.6 Paragraph 35 indicates that Vodafone will benefit from a first-mover advantage on new towers. The obligation states that Vodafone will only be required to supply the Vodafone RBI Co-location Services on new towers "*after* the deployment of the new infrastructure".

4.7 Fair and open access requires all parties to have contemporaneous access to RBI infrastructure and the rural customers that it will serve.

4.8 If Vodafone are only required to provide co-location services after new towers (already carrying Vodafone radio equipment) have been built there will be a material delay while access-seekers navigate the co-location process.

4.9 As discussed above, no detail has been provided on the proposed "collaborative process" Vodafone will be required to undertake prior to construction, raising concerns about significant delays to any competing services being offered over RBI infrastructure.

4.10 It is important a robust process is negotiated to ensure access-seekers are not put at the competitive disadvantage of being forced to work through the co-location process while Vodafone is free to use RBI infrastructure to achieve a first-mover advantage in acquiring rural customers.

Paragraphs 35 and 36.1

- *The existing Mobile Co-location STD is insufficient*

4.11 Vodafone will provide co-location on both new and existing towers on the terms set out in the Mobile Co-location STD.

4.12 We do not consider the current STD process designed with private infrastructure in mind to be appropriate for providing access to publicly funded RBI infrastructure.

4.13 The current Mobile Co-Location STD seeks to balance the rights of private infrastructure owners against the statutory obligation to provide access. Many of the conditions of the existing STD therefore grant protections to the access-provider which are not appropriate for access to publicly funded infrastructure.

4.14 For example, the current process allows the access-provider to reserve space on a tower for their own equipment if they have an expectation they will install existing equipment within 2 years or new technology within 3 years.

4.15 This condition is relatively easily used, particularly given the imminent arrival of LTE technology, to prevent co-location.

4.16 We have no way of ensuring that this condition will not be abused in relation to new or existing RBI infrastructure. If the clause is used to deny a request for co-location access-seekers have no recourse if it transpires that new equipment is ultimately not installed by the access-provider.

4.17 The conditions of the existing Mobile Co-Location STD require careful consideration in the context of publicly funded infrastructure. This is not simply a case of applying an access regime designed for private assets to publicly funded and/or publicly subsidised assets.

5. CO-LOCATION PRICING

A generic obligation to provide "cost-based" pricing is inadequate

5.1 Only a single paragraph has been dedicated to the critical issue of co-location pricing. This falls well short of the level of disclosure and consultation required to address the obvious harm to competition that would result from excessive pricing for co-location services.

5.2 We see no reason why the price of co-location should not be a matter for regulation and repeat our recommendation to the Select Committee that co-location be made a designated service under the Telecommunications Act.

5.3 If pricing is not designated, far greater transparency and consultation is required before the Crown concludes pricing negotiations with Vodafone.

5.4 Paragraph 37 states that co-location pricing will be privately agreed with Vodafone and will be "cost-based", reflecting the fact that the Crown is contributing significantly to the cost of the towers.

5.5 No information is provided regarding any difference in pricing between co-location on new (fully funded) versus existing (subsidised) towers.

5.6 Full disclosure of the costs incurred by Vodafone in providing the co-location service in respect of both new and upgraded towers is required, together with industry input regarding the final price. It is abundantly clear from the current mobile termination access services (**MTAS**) inquiry that there are many ways of defining and determining "cost-based" pricing.

5.7 We take no comfort from a generic obligation to provide "cost-based" access. An objective and auditable price calculation methodology is required, with Vodafone obliged to disclose how public funds have been spent and its actual costs of providing the co-location service.

5.8 Agreeing the price to be paid for co-location behind closed doors and in circumstances where Vodafone has clear incentives to increase the costs of its competitors is fraught with risk and is unsatisfactory to 2degrees.

5.9 The depreciated value of Vodafone's existing towers should be taken into account when determining "cost" together the intangible benefits to Vodafone from the RBI. As noted in our submission to the Select Committee, Vodafone clearly consider the benefits of the RBI exceed the cost of the radio network.

The application of regulatory forbearance to the RBI requires clarification

5.10 In paragraph 18, the Ministry notes that the Commerce Commission's general ability under the Telecommunications Act to investigate and recommend regulation is not constrained by the RBI.

5.11 It is not clear whether this means that the regulatory forbearance regime under proposed S.156AR of the Telecommunications Amendment Bill is not intended to apply to Vodafone. Our review of the proposed regulatory regime suggests that it would not apply in respect of services covered by Vodafone's RBI undertaking. This is because:

- The forbearance under proposed S.156AR relates to services comprising access to the unbundled elements of a fibre-to-the-premises access network or to access to a packet-based bitstream service that enables access to a fibre-to-the-premises access network.

- A fibre-to-the-premises access network is defined in proposed S.156AB as:
  - A network structure used to deliver telecommunications services over fibre media that connects a powered node in a central office location to an end-user's premise or building or to the ODF of an end-user's premise or building; and
  - Includes the powered node in the central office location; and
  - Includes that part of the overall telecommunications link that connects to the end-user's equipment.

5.12 Since the services that Vodafone proposes to provide as its RBI solution are wholesale fixed-wireless broadband services and tower co-location, our understanding is that these services do not fall within the framework of the proposed regulatory forbearance regime.

5.13 Given the importance of this issue to the industry, we request that the Ministry make a clear statement about the intended application of the proposed regulatory forbearance regime to the RBI.