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Ministry of Economic
Development



Manatū Ōhanga

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16 November 2012

Digital Dividend: Options for Implementation Requirements

Purpose

This paper provides additional options to use the allocation of the digital dividend to help achieve the government's mobile coverage objectives. It also provides background to the previous proposals, and further information on what will be achieved by the Rural Broadband Initiative (RBI).

Action Sought

	Action Sought	Deadline
Minister for Communications and Information Technology	For discussion at an upcoming officials' meeting	26 November 2012

Ministry Contacts

Name	Position and Unit	Telephone		1 ST Contact
		Work	After Hours	
Len Starling	Manager, Radio Spectrum Policy & Planning	04 462 4221	s9(2)(a)	✓
Ben Cravan	Senior Policy Analyst, Radio Spectrum Policy & Planning	04 474 2642		

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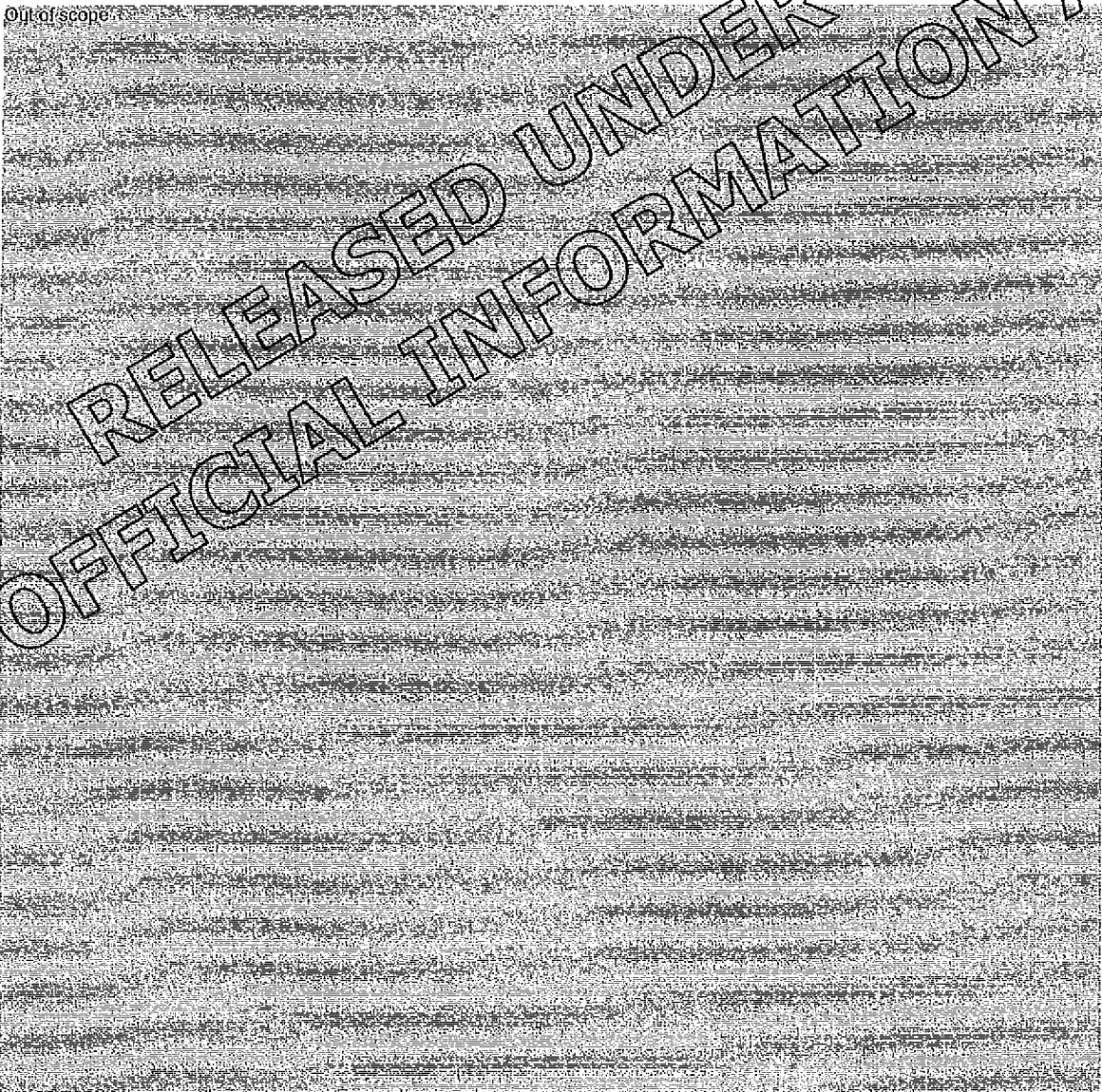
Ministry of Business,
Innovation & Employment

16 November 2012

Minister for Communications and Information
Technology

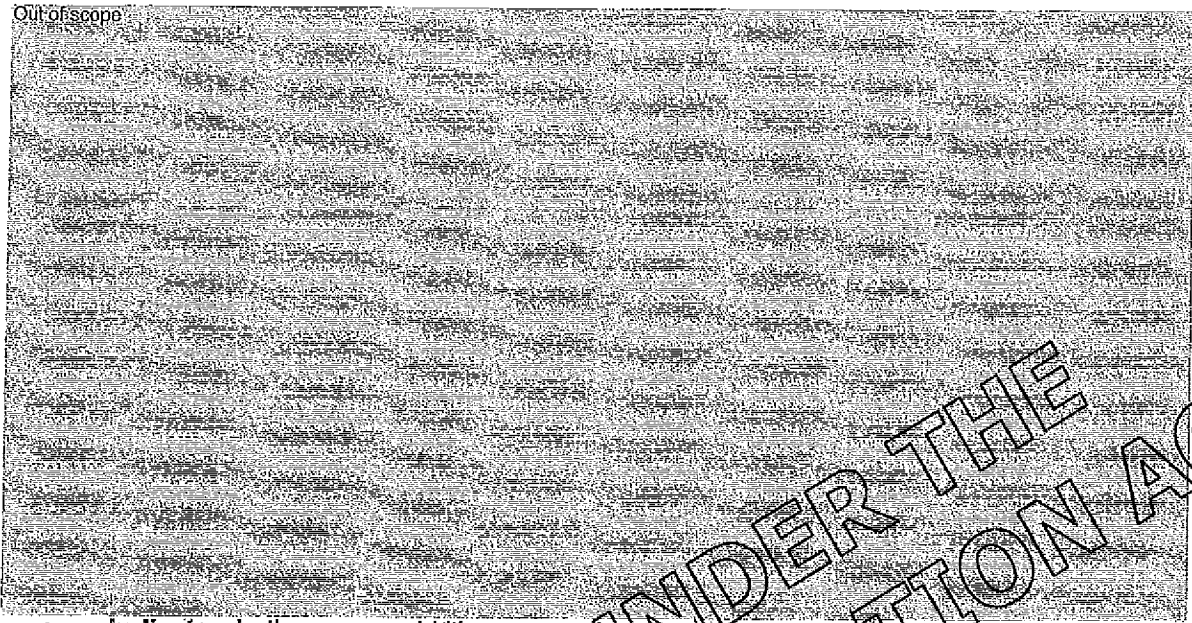
Digital Dividend: Options for Implementation Requirements

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e Indicate whether you would like your preferred option to be designed to minimise the risk to weaker market players.

Yes / No

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Len Starling
Manager, Radio Spectrum Policy & Planning
Energy and Communications Branch

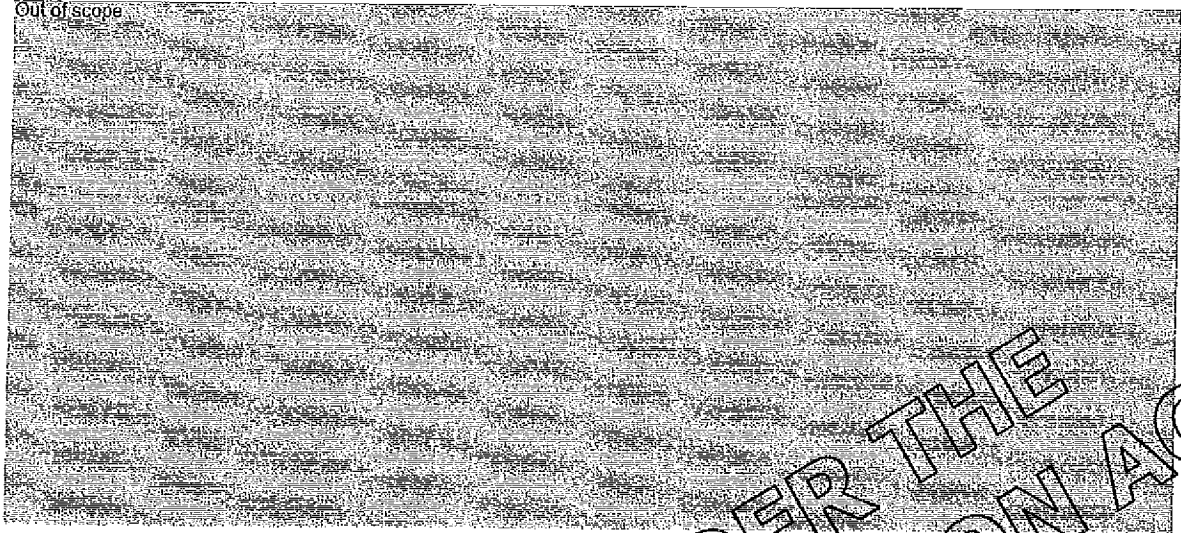
Hon Amy Adams
Minister for Communications and
Information Technology

Date: 27/11/12



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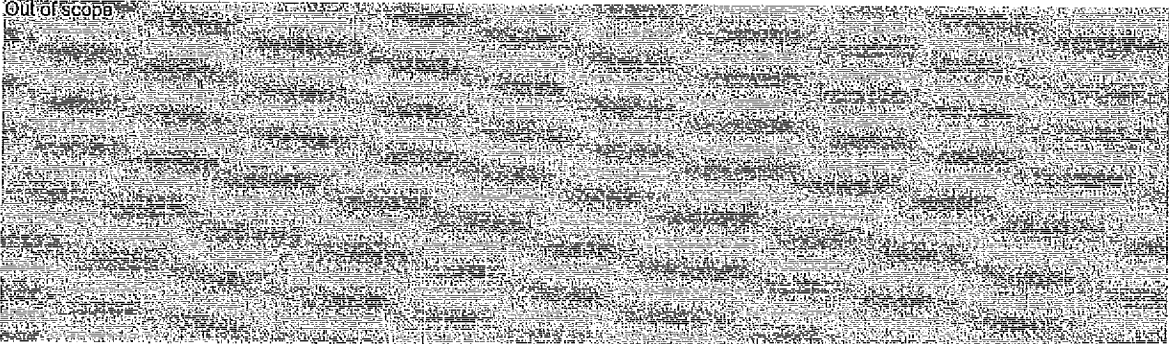
Out of scope



Impact on Third Entrant

44. Most of the proposed options are likely to disproportionately affect 2degrees, which is still rolling out its network. It may therefore be beneficial to design an implementation requirement which minimises the impact on weaker market players.
45. Options could include:
 - a. Applying a condition to a specific lot within the auction. This would limit any requirement to a single operator, who would be expected to purchase the lot at a discount. It could be applied to the middle lot, which is widely regarded as the most desirable. There is a risk, however, that Telecom and Vodafone will opt not to bid on the lot with additional conditions, instead forcing 2degrees to commit to extensive rollout obligations. Lowering the reserve price on the block would help to reduce this risk.
 - b. Applying a condition based on market share or total spectrum holdings. This could allow staged requirements (for example, 50% population coverage for operators with less than 25% market share, 85% population coverage for others), or additional requirements on the larger operators (operators with more than 25% market share much cover at least 50% of Zone 4 within five years).
46. In addition, the 'outside-in' proposals, (option A) may be designed such a way that creates a collective requirement rather than individual requirements, reducing the onus on smaller players.

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20 FEB 2013



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31 January 2013

Digital Dividend: Coverage Obligations

Purpose

We have considered how best to achieve an improvement of total mobile coverage through the allocation of the digital dividend, and present for your information two options that we consider are most likely to achieve the goal. We seek your agreement that both options be tested with industry as part of the upcoming industry consultation on detailed auction design.

Action Sought

	Action Sought	Deadline
Minister for Communications and Information Technology	Agree to the recommendations.	5 February 2013

Ministry Contacts

Name	Position and Unit	Telephone		1 ST Contact
		Work	After Hours	
Len Starling	Manager, Radio Spectrum Policy & Planning	+64 4 462 4221	s9(2)(a)	✓
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MBIE-MAKO-3703838

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Ministry of Business,
Innovation & Employment

31 January 2013

Minister for Communications and Information
Technology

Digital Dividend: Coverage Obligations

Executive Summary

Following previous discussions and reports on how to improve coverage as part of the allocation of the digital dividend, we have settled on two preferred approaches:

- A requirement on all successful bidders to deploy a minimum number of towers per year, for five years, in areas where they previously did not have coverage.
- A requirement on all successful bidders to extend their coverage in nominal population percentage covered terms, year-on-year for five years.

The first approach is our preferred option, as it is relatively clear, and easy to communicate and monitor. It is also less likely to be detrimental to 2degrees (or, for that matter, a completely new entrant) as it will be building such towers anyway.

The second option is more in line with industry approaches to measuring coverage and approaches taken overseas. However, because nominal coverage is already very high the year-on-year increase would need to be a small number (e.g. 0.1% population per year) in order to be achievable.

Under both options there is a risk that the only true coverage gains will come from Vodafone. Telecom and 2degrees would likely meet the obligation by providing coverage in areas already covered by the Rural Broadband Initiative (RBI).

We considered some other options (briefly set out in the report) but concluded that they were less likely to achieve the government's objectives. We seek your agreement to include the two options described above as part of the upcoming industry consultation.

Recommended Action

We recommend you:

- a **Discuss** these options at an upcoming Officials' meeting


Yes / No

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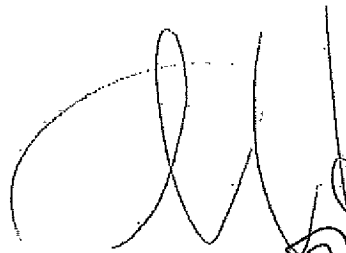
b **Agree** that we develop the two proposed options for inclusion in the upcoming industry consultation

Yes / No

Discuss



Len Starling
Manager, Radio Spectrum Policy & Planning
Resources, Energy and Communications
Branch



Hon Amy Adams
Minister for Communications and
Information Technology

Minister's feedback on quality of report:				
1	2	3	4	5

1 Not satisfactory; 2 Fell short of expectations in some respects; 3 Met expectations
4 Met and sometimes exceeded expectations; 5 Greatly exceeded expectations

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Digital Dividend: Coverage Obligations

Purpose of Report

1. We have considered how best to achieve an improvement of existing mobile coverage through the allocation of the digital dividend, and present for your information two options that we consider are most likely to achieve the goal. We seek your agreement that both options be tested with industry as part of the upcoming industry consultation on detailed auction design.

Background

2. We have been discussing for some time whether and how to improve mobile coverage levels in New Zealand through the 700 MHz auction. Following a briefing on specific outcomes that could be targeted, at the Officials' meeting on 13 December 2012, you asked us to pursue 'generic' options to extend coverage.
3. We have based our proposals on the following assumptions:
 - a. The objective is to achieve an overall increase in mobile coverage for the benefit of consumers.
 - b. The requirement is additional to the minimum specification of LTE deployment using the 700 band covering 50% of the national population and 25% within each region within five years.
 - c. Operators are best placed to determine how to increase coverage in the most cost effective and commercially viable manner, and could therefore use any frequency band to meet the requirement (i.e. not limited to the 700 MHz band).

Options for Consultation

4. We have identified two preferred options, the 'tower' option and 'population' option, that we consider most likely to achieve the objectives set out above. We expect that both options would benefit from refinement following consultation with industry, and propose to include both in the upcoming consultation on detailed auction rules. At this stage, however, we prefer the tower option.
5. We suggest that the consultation would start with a statement of the government's objective (as per paragraph 3). Prospective bidders would then be asked to comment on the most effective way of meeting the objectives. They could support one of the two options as drafted, suggest modifications, or propose a third option.

The Tower Option – Requirement to deploy a set number of new cell towers per year, for five years

6. Under this option, all parties owning a portion of the 700 MHz band would be required to deploy a minimum number of new cell towers every year. A starting point for consideration would be ten cell towers each per year for five years.

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7. New cell towers would need to be 'macro' sites, providing coverage in areas which previously did not have substantial coverage. They would not be capacity improvement or infill sites. This would need to be carefully defined in any final auction condition or deed.

Pros

8. This option is likely to achieve the stated goal of extending coverage, through a concrete, easily understandable and measurable requirement.
9. The difficulty of meeting the requirement scales for differently sized operators. The requirement to build additional cell towers is likely to be much easier for a new entrant or recent entrant (2degrees) to meet. They would effectively under build existing coverage from other operators in areas which remain commercially attractive. Conversely, mature operators such as Vodafone and perhaps Telecom will be challenged to extend coverage further than they currently provide into non-economic areas previously without coverage.
10. Requiring a certain number of cell towers also allows operators to provide coverage in areas with fewer fixed abodes but where coverage may be beneficial, such as along state highways. It enables the operators to flexibly respond to demand for coverage.

Cons

11. It will be important to carefully set the required number of sites per year, to ensure that greater coverage is achieved than was already planned by the operators, without imposing excessive costs on industry.
12. It may be difficult to define macro-coverage sites in any agreement with the operators, and in the auction conditions.
13. In addition, the exact outcomes of the requirement will be unknown and depend on choices made by the operators. We will be unable to communicate what areas will receive new coverage, or even the extent of that coverage. We envisage that this could be addressed by requiring operators to submit annual plans for the new towers they intend to construct under the requirement, setting out the expected coverage improvements.

The Population Option -- *Increase coverage footprint by x% population per year for five years*

14. All operators would be required to increase their coverage footprint by a set percentage (of population covered) every year for five years. This follows the industry trend of reporting coverage based on the percentage of the population covered.

Pros

15. This approach would guarantee improved coverage from all operators from their existing levels. As it is based on existing levels of coverage, it also scales for the different operators, becoming much harder to meet for larger operators, and relatively easy for smaller operators.

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Cons

16. As Vodafone and Telecom both claim coverage of more than 97% of the population, and with Vodafone projecting coverage of around 98.5% population coverage following completion of the RBI, any incremental coverage requirement would need to be set relatively low, likely at around 0.1% population coverage increase per annum (or below). As such, the requirement may be perceived as trivial, while actually resulting in a large improvement in coverage area.
17. In addition, this approach would be difficult to monitor. Earlier approaches based on population coverage have been general enough to rely on statutory declarations from the operators. An incremental requirement from existing coverage would need the existing level of coverage to be agreed, and for each increase in coverage verified.
18. There would be little likelihood under this option that operators will provide further coverage to areas without permanent population, such as along state highways.

Relationship with Existing Coverage

19. The three operators currently have different coverage footprints, and 2degrees coverage area is significantly less than the other two. The difference is likely to be increased by the completion of the RBI. As such, it is likely 2degrees would meet either obligation by underbuilding areas which already have coverage from another provider, as it continues to build its coverage footprint. It is also possible that Telecom may simply under build the RBI.
20. We considered disallowing underbuilding existing competing coverage to meet the obligation, in order to achieve the maximum absolute coverage increase. However, doing so would undermine the equalising effect set out in paragraph 9 above. It would be especially difficult and costly for 2degrees to roll out services in areas which currently have no coverage.
21. We also considered disallowing underbuilding the RBI to meet the obligation, but decided that this may undermine the goals of providing coverage in rural areas. We instead suggest making the obligation based on current *and contracted* coverage levels. This means that Vodafone would not be able to use new RBI towers or coverage to meet the obligation.
22. It is therefore possible that under both of these options only Vodafone would provide an extension of absolute coverage from today's levels. However, consumers will still benefit if coverage of their network increases even if that coverage was already provided by another network and competitive tension may continue to drive additional coverage from the other providers. We note that, under a requirement of 10 new cell towers per year for five years, this could result in fifty new cell towers, around a third of the new towers deployed in the RBI.

Co-location

23. The new towers should be open to co-location, to encourage competition in the newly covered areas. However, to keep costs down we do not recommend enforcing co-location as was done in the RBI.

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24. Instead, we propose a notification system, where operators would be required to announce their intentions to deploy a new cell tower in an area. Other operators would then have the opportunity to commit to co-locating on that tower. Cost sharing would be subject to negotiation between the parties.
25. We would include co-location in the monitoring of the scheme, and publish the results online for transparency. While this would not force co-location, it may help minimise the risk of operators deliberately delaying or refusing co-location requests for anticompetitive reasons.

Other Options

26. We considered a number of other requirements, including:
 - a. A requirement to improve the average speeds offered on each network. We consider that competition is already driving this (given recent media focus on network speeds; and deployment of dual-carrier technologies). In addition, it would be difficult to accurately measure and enforce, and does not extend coverage.
 - b. Imposing a requirement to cover a specific underserved region on each block available for auction. This would allow nine previously underserved regions to be provided with coverage, with operators effectively competing for different regions as part of the auction. We considered that it was preferable to allow flexibility to operators to select where to extend their coverage, and that they were best placed to make those decisions.
27. We also considered imposing more stringent requirements on operators who purchased more spectrum. While this approach could be seen to be beneficial to operators seeking to purchase less spectrum, we consider that these outcomes are also achieved by option a. Imposing a staged requirement may be argued by 2degrees to be an additional barrier erected by the government preventing it from competing on an equal footing with its larger competitors.
28. We are, however, still considering imposing a more stringent requirement on an operator who purchases more than 15 MHz of spectrum, should such an opportunity arise. We suggest raising this as an option as part of the upcoming consultation.

Fiscal

29. We have estimated the per-operator costs of a requirement based on 10 new cell towers per year for five years. Estimating the costs of the population option would be much more difficult, but we would envisage developing an option based on similar costs.
30. We estimate that a new cell tower would cost between \$250,000 and \$500,000, depending on a number of factors including location, access to backhaul, and the number of co-located operators. \$250,000 would be a relatively cheap, simple to construct tower; \$500,000 is about the cost of the average RBI tower, constructed to carry a minimum of three operators.
31. Based on these estimates, the tower option could cost between:
 - a. \$2.5m and \$5m per year per operator;
 - b. \$12.5m and \$25m per operator overall;

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- c. \$37.5m and \$70m in total, assuming spectrum is won by three parties.
32. These are gross cost estimates. The extent to which the operators reduce their bids because of an additional coverage obligation would depend on the individual circumstances of each operator. This is because the net cost would depend on the extent of change from the operator's existing expansion plans. For example, as 2degrees is still expanding its coverage, an obligation to build 10 new cell towers per year may impose no new net costs.
33. Any discounting will not be transparent, and the true cost of such a requirement is likely to remain unknown.

Next Steps

34. We propose developing high level proposals for inclusion in the upcoming industry consultation. These would include more detail on how the requirements would operate, including monitoring and enforcement. Feedback from industry should help identify any flaws in either option, and help identify the most efficient approach.

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700 MHz Auction: Deferred Payments Scheme

To Hon Amy Adams Date 13 June 2013 Deadline 27 June 2013

This paper outlines draft options for a deferred payments scheme for bidders in the 700 MHz auction, for you to consider. The potential benefits/objectives of such a scheme are lower barriers to entry for smaller operators and faster roll-out of 4G cellular mobile networks. Our final advice on this issue will be provided after submissions close.

Background

- 1 The 700 MHz auction consultation document states that Ministers have indicated that they are prepared to consider options for deferred payment, and seeks feedback on this by 21 June 2013. We expect comments from industry as part of the current consultation on the auction. Notably, 2degrees has already suggested a deferred payment scheme to the Ministry of Business, Innovation and Employment (MBIE) and various Ministers.
2 In 2009 the government established a deferred payment scheme for radio licences (detailed in Annex 2). There are two key differences between that scheme and the 700 MHz auction. First the 2009 scheme had to be voluntary as it was established after terms and prices were initially agreed to by all of the parties. Second, a high interest rate was set with the implicit objective of discouraging use of the scheme. In contrast, a scheme for the 700 MHz auction would be established ex ante so it could be mandated, and a penal interest rate would not be consistent with the objectives for establishing such a scheme.
3 Annex 3 provides international examples of deferred payment options for spectrum.

Options

- 4 Many options exist in terms of payment plan duration, administrative burden, GST-treatment, public perception, and being optional or not (see Annex 1 for some initial scenarios). Any scheme could be configured to bring about the same fiscal return.
5 Length of time for the Crown to recoup the total payment: a shorter timeframe could lower the repayment risk, because operators should have reasonably accurate short term internal financial forecasts. However, it may not be as effective in lowering entry barriers and could result in slower network development. A longer timeframe increases benefits to network operators but also increases the risk to the Crown because operators may be encouraged to bid beyond their ability to pay.
6 The administrative burden is likely to be high if the payments are structured as a mortgage. In particular, intercreditor deeds are likely to be difficult for any company with diverse international debt facilities. The government has a choice about the security it

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requires. As the management rights for 700 MHz spectrum will be issued in two tranches,¹ the government could reduce its security at relatively low risk.

- 7 GST: if structured as deferred payments then it is likely that all of the GST would need to be paid upfront (as in 2009, see Annex 2). Other structures, for example, a resource charge, may attract different GST treatments.
- 8 Optional/mandatory: an optional scheme would need to make explicit provision for the time-value of money by setting an interest rate, which could be challenging and controversial. A high rate may nullify the scheme's objectives, and a low rate may be seen as a subsidy to 2degrees. In contrast, a mandatory scheme would not require an explicit interest rate and any implicit rate² would affect all parties equally.
- 9 Our preliminary view is that a mandatory scheme with a term linked to the structure of the management rights might best fulfil the government's objectives.

Risks and mitigations

- 10 Securing payment in full is the key risk, if an operator became insolvent. Mortgages and caveats could be applied to mitigate this risk, as with the 2009 licence scheme.
- 11 A precedent could be set. This risk was identified with the 2009 radio broadcasting licenses scheme. However, no broadcasters have formally requested further deferred payments schemes to date.

Recommendations

- 1 **Note** that industry submissions on a deferred payments scheme for the 700 MHz auction are expected as part of the current consultation. Yes/No
- 2 **Discuss** the options presented in Annex 1 with officials. Yes/No

Len Starling
Manager § 9(2)(a)
Radio Spectrum Policy and Planning
Resources, Energy and Communications

Hon Amy Adams
**Minister for Communications and
Information Technology**

Date: ____ / ____ / ____

Minister's feedback on quality of report:				
1	2	3	4	5

1 Not satisfactory; 2 Fell short of expectations in some respects; 3 Met expectations
4 Met and sometimes exceeded expectations; 5 Greatly exceeded expectations

¹ The existing (initial) management rights run until 2020. New rights will be provided after that date, if implementation and other requirements are met.

² The government could still implicitly allow for the time-value of money by adjusting the reserve price depending on the profile of cash flows coming from the chosen scheme.

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Annex 1: Draft scenarios for a deferred payments scheme

- 1 Below are some initial high level scenarios for a deferred payments scheme. All options would require more work to finalise details. We expect to consult with the Treasury, IRD, and DPMC to further develop these options if you indicate a willingness to develop a deferred payments scheme for the 700 MHz auction.
- 2 All the scenarios could be configured differently, for example in the amount required as an upfront payment.

A. 50 per cent upfront, five equal payments of 10 per cent thereafter

- 3 An upfront payment of 50 per cent of the winning bid would be payable shortly after the auction concludes. Five equal payments of 10 per cent of the total winning bid could then be made over the following five years.
- 4 An advantage of this option is that it requires full payment before the initial six-year management rights expire in 2020. The remainder of the 18-year management rights would be issued conditional on payment, and the implementation and coverage requirements being met.
- 5 A disadvantage is that it provides limited assistance to capital-constrained bidders, as the initial 50 per cent payment is still a substantial amount, and full payment is still required within five years.
- 6 This is similar to a scheme used in Ireland (see Annex 3).

B. 20 per cent upfront, five equal payments of 15 per cent thereafter

- 7 This option is similar to option A, but with less upfront and larger payments thereafter.
- 8 This option is more favourable towards capital-constrained operators than option A because of the smaller upfront payment.
- 9 However, it could raise the risk of non-payment by encouraging bidders (faced with lower upfront costs) to bid beyond their ability to pay.

C. 50/50 split scheme

- 10 50 per cent of the principal would be required upfront. The other 50 per cent would be payable in 2020, when the conditional management rights are issued, assuming that coverage and implementation requirements have been met.
- 11 This option would allow the government to impose a financial penalty for not meeting implementation or coverage requirements. For example, the second payment could include a 20 per cent penalty. Alternatively, if there was a gross breach of commitments then the conditional management right would not be granted and those rights could be sold to another party.
- 12 This could add complexity to the scheme by combining different policy objectives (lowering entry barriers and ensuring timely provision of services) under the same enforcement tool. It could lead to complex situations where payments have been made in full but implementation or coverage requirements have not been met (or vice versa). This risk could be mitigated through careful planning and the inclusion of clear penalties in

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deeds. (We will report separately on possible penalty regimes but note at this point the difficulties in setting penalties. Penalties that are low may be treated as options to buy-out of an obligation and high penalties may not be enforceable by the Crown.)

D. 10 equal payments

- 13 This is 2degrees' first preferred option, suggested in a letter to you dated 26 March 2013. We expect 2degrees (and possibly others) to provide further detail in the current consultation.
- 14 An advantage of this option is that it requires little upfront capital expenditure by successful bidders, which could lower barriers to market entry and promote faster development of 4G networks.
- 15 A disadvantage of this option is that, in the short term, it does not provide reassurance to the Crown that a successful bidder is able to pay a significant amount of the total price. It also does not require full payment before conditional management rights are issued in 2020.

E. 20 per cent upfront, remainder spread over ten years

- 16 This is 2degrees' second preferred option. It has similar advantages and disadvantages as option D.
- 17 This is similar to a scheme used in Denmark (see Annex 3).

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Annex 2: Outline of 2009 deferred payments scheme for radio broadcasting licenses ("the MediaWorks scheme") and comparison to the 700 MHz auction context

- 1 In April 2009, the Radio Broadcasters Association requested a deferred payment option for upcoming renewal payments for AM and FM radio broadcasting spectrum licences. These renewal payments extended the soon-to-expire licenses for twenty years. The renewal price cumulatively totalled around \$96 million. It was claimed that given the global economic downturn some broadcasters, particularly MediaWorks, would be unable to obtain funding to make these payments. The renewal fees for MediaWorks were approximately \$42 million.
- 2 In October 2009 Cabinet authorised the Ministry of Economic Development (now MBIE) to offer a deferred payment option to licensees, which consisted of the renewal payment being equally divided over a period of five years with an interest rate of 11.2% per annum [CAB Min 09 37/10]. This interest rate was set to cover the Crown's costs and risks. For MediaWorks, the terms of this arrangement meant five annual payments of \$11.9 million each were scheduled, comprising the principal sum, GST, and interest.
- 3 Although the payments were all equal their composition was not. The majority of the first payment was GST, plus a small amount of the principal. The following payments were comprised of principal and interest, with the proportion being interest decreasing over time as the outstanding principal decreased with each payment.
- 4 Nine broadcasters, including MediaWorks, chose to take up the optional deferred payment offer, out of a total of approximately 70 commercial broadcasters whose licenses were up for renewal. Broadcasters who signed up to the deferred payments arrangement had the option to fully purchase any or all of the 218 licenses before the end of the five year payment term. MediaWorks has now paid in full, but there are seven smaller broadcasters still using the deferred payment scheme presumably because of their tenuous financial situations.
- 5 It was estimated that the costs to the Crown of the AM/FM deferred payments arrangement was approximately \$50,000 in legal costs and a further \$10,000 annually (over five years) in related administration costs.
- 6 There are some key differences between the context of the radio broadcasting deferred payment scheme and the 700 MHz auction:
 - The total sale price for 700 MHz management rights (likely to be in the hundreds of millions of dollars) is likely to be significantly higher than the total price of sound broadcasting licence renewals (\$96 million).
 - The objectives of a deferred payments arrangement for 700 MHz spectrum are that market entry barriers are lowered, willingness to pay might be raised, and networks get built quicker as MNOs would have more capital available immediately following the auction. In contrast, the objective of the radio broadcasting scheme was to allow MediaWorks to continue operating.
 - MediaWorks was in a challenging financial situation where it was unable to obtain the necessary funds to renew its licenses through conventional channels. Mobile network operators are not in the same situation, to our knowledge. The lack of a payment scheme could have caused MediaWorks to cease operating, whereas a

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lack of such a scheme for mobile network operators could delay the development of 4G networks but is unlikely to force them out of the market immediately.

- s 9(2)(f)(iv), s 9(2)(g)(i)

- The 2009 broadcasting licence scheme was set up after the licence sale, so it had to be voluntary and had to include an interest rate so as not to disadvantage those choosing not to take up the deferred payments option. In contrast, a 700 MHz scheme would be *ex ante* and is therefore not subject to these constraints.

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Annex 3: Deferred payments for cellular spectrum: international examples

- 1 Internationally, there is a range of deferred payment arrangements for cellular mobile spectrum. Some examples are provided below. To note, we have at this point been unable to find information about the application of interest and GST equivalents in the examples below.
- 2 Australia: successful bidders in the 2013 Australian auction have been given until 2014 to make final payments. This was decided in the context of large cellular mobile licence renewal payments due in 2013.³
- 3 Denmark: the 2012 Danish auction provided successful bidders with the choice to either pay in full upfront, or 20 per cent upfront and the remaining 80 per cent in eight equal annual instalments beginning one year after the spectrum licences are issued.
- 4 Finland: in Finland, spectrum auction winners pay annual licence fees corresponding to their winning bids in equal instalments over the term of the spectrum licence period. The first five payments are combined and paid upfront at the beginning of the licence period.
- 5 India: the 2013 Indian spectrum auction required a 25 per cent payment within ten days of the auction closing, followed by a payment moratorium until March 2016 after which successful bidders are required to pay the remaining balance in 10 equal annual instalments.
- 6 Ireland: the 2012 Irish spectrum auction raised €854.64 million, of which €481.7 million was required to be paid immediately in upfront fees, and the remaining €372.95 million paid in annual instalments until July 2030.
- 7 Portugal: winners of spectrum in the recent Portuguese auction could opt to pay two thirds of their total payment upfront, with the final third payable in annual instalments over no more than five years. A 6.08 per cent discount applies to those who made early payments in full. If one annual payment is not received, all remaining payments become due immediately. Those who did not choose to take up this offer had 6.08 per cent discounted from one third of their total upfront payment.

³ New Zealand mobile network operators do not face the same renewal costs in the near future. Those who have not implemented services in their management rights in the 2.3-2.6 GHz band by 30 November 2013 may be required to pay the Crown relatively small sums (in the tens of thousands of dollars range, 15% of original purchase cost) if they wish to extend the due date of their implementation requirements to 2016. Additionally, Hautaki Ltd has a \$455,208.33 purchase option on 25 MHz of spectrum in the 2.3 GHz band, which it must take up (and pay for) before 30 November 2013, when the purchase option expires.

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From: Len Starling
Sent: Friday, 14 June 2013 3:45 p.m.
To: Catherine McLeod; Anna Nuzum
Cc: Bradley Ward; Chris Bishop; Bruce Parkes
Subject: 2degrees news/ 700 MHz consultation

Hi Cat, Anna

Just letting you know a couple of news items.

2degrees has advised us confidentially that it hopes to be making some statements about its financial position next week, involving establishment of a new debt facility.

s 9(2)(b)(ii)

Our team in the spectrum registry had noticed the removal of caveats from 2degrees and Hautaki management rights over the last few days. This is a good indication that the administrative arrangements for a refinancing are well underway.

s 9(2)(b)(i)

Also, 2degrees has asked for another working day to provide its 700 MHz submission due to the current volume of regulatory work that its small team is facing. I think we can accommodate that without changing officials report-back date to Ministers so I'm intending to announce that to interested parties on Monday.

Cheers

Len

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From: Ian Hutchings
Sent: Thursday, 20 June 2013 12:40 p.m.
To: *ECB - Radio Spectrum Policy Group
Subject: 2degrees and money

Hi all

It seems the vendor finance repayments to Huawei are for \$31.2 million for each of 4 years starting this September.

So if they have \$165 available from BNZ, there is a period of time when they could both build 1800 MHz 4G and acquire some 700 MHz spectrum.

s:9(2)(a)(i)

Cheers

Ian Hutchings
Principal Policy Analyst
Radio Spectrum Team
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Meeting with 2degrees on Friday 12 July 2013

To Hon Steven Joyce

Date 10 July 2013

Deadline 12 July 2013

2degrees is likely to want to talk about the 700 MHz Auction and the Telecommunications Act Review. 2 degrees is concerned that it will end up with less than one-third (3 lots or 15 MHz paired) of the 700 MHz spectrum. This might happen if the reserve price is "too high". A deferred payment arrangement would assist 2degrees to meet the government's price. The Telecommunications Act Review is in its early stages. 2degrees will have a chance to comment once the discussion paper is released.

Proposed 700 MHz Auction

An auction of 700 MHz spectrum is planned for later this year with a targeted start date in October. (It is possible the auction will be delayed due to Treaty claim WAI 2224 being reactivated last week. This is not yet public knowledge). Industry consultation on the auction closed on 24 June. Thirteen submissions were received, including a comprehensive submission from 2degrees.

Acquisition limits have been set so that the maximum any operator can acquire is one-third (3 lots) of the available spectrum. However, in the event that there is insufficient demand at the reserve price it is intended to relax the acquisition limit so that an organisation can acquire an extra lot (i.e. 4 lots rather than 3). The auction could therefore result in each of the three telcos acquiring one-third of the available spectrum or some other allocation where acquisition of lots is unequal (4-3-2 or 4-4-1). A fourth bidder would be welcome, but seems unlikely.

2degrees has yet to generate any return on the capital investment in its 3G network. It has however just started making positive EBITDA returns. It has recently secured a \$165 million credit facility with BNZ but has committed all of this to repaying its vendor finance (approximately \$120 million) and investing in a 4G 1800MHz network. The auction reserve price is therefore a key concern for 2degrees.

Analysis and benchmarking is currently being undertaken in relation to setting the reserve price. An updated report has been received from our benchmarking consultants and this is currently being peer reviewed independently by PwC and IDC (this process is not public knowledge). 2degrees may instance the Australian auction where there were only two bidders, there was no bidding above the reserve price and spectrum was left unsold.

A deferred payment scheme would assist 2degrees by allowing it to match its investment in 700 MHz spectrum with its operating cashflows. 2degrees provided detail of a proposed deferred payment option in its submission to the recent MBIE consultation. This involved a 20% payment on settlement, a two year moratorium, then four annual 20% payments.

In general 2degrees is likely to favour a slower auction and payment timetable so it can get more earnings from its 3G (and 4G) investments before having to pay for 700 MHz spectrum. It is likely to be particularly concerned about the time between the announcement of the reserve price and the auction, as it will need to raise capital again.

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You and Ministers Adams and English will be receiving officials' advice on these matters in August to allow final decisions to be made.

Telco Act Review

- The Regulatory Review discussion paper is expected to be released in early August;
- The Review will be phased – the discussion paper will focus on the relativity between copper and fibre pricing;
- The Paper will also seek feedback on any additional matters that might be considered in the Review during subsequent phases;
- The review timeframe does not give opportunities for any decisions to influence the 700 MHz auction process.

Annexes

1. Information about your visitors and 2degrees
2. Summary of 2degrees' submission to the 700 MHz consultation
3. Recent news about/from 2degrees

Recommendations

- 1 We recommend that you note this report.

Len Starling
Manager s(2)(a)
Radio Spectrum Policy and Planning
Resources, Energy and Communications

Hon Steven Joyce
Minister for Economic Development

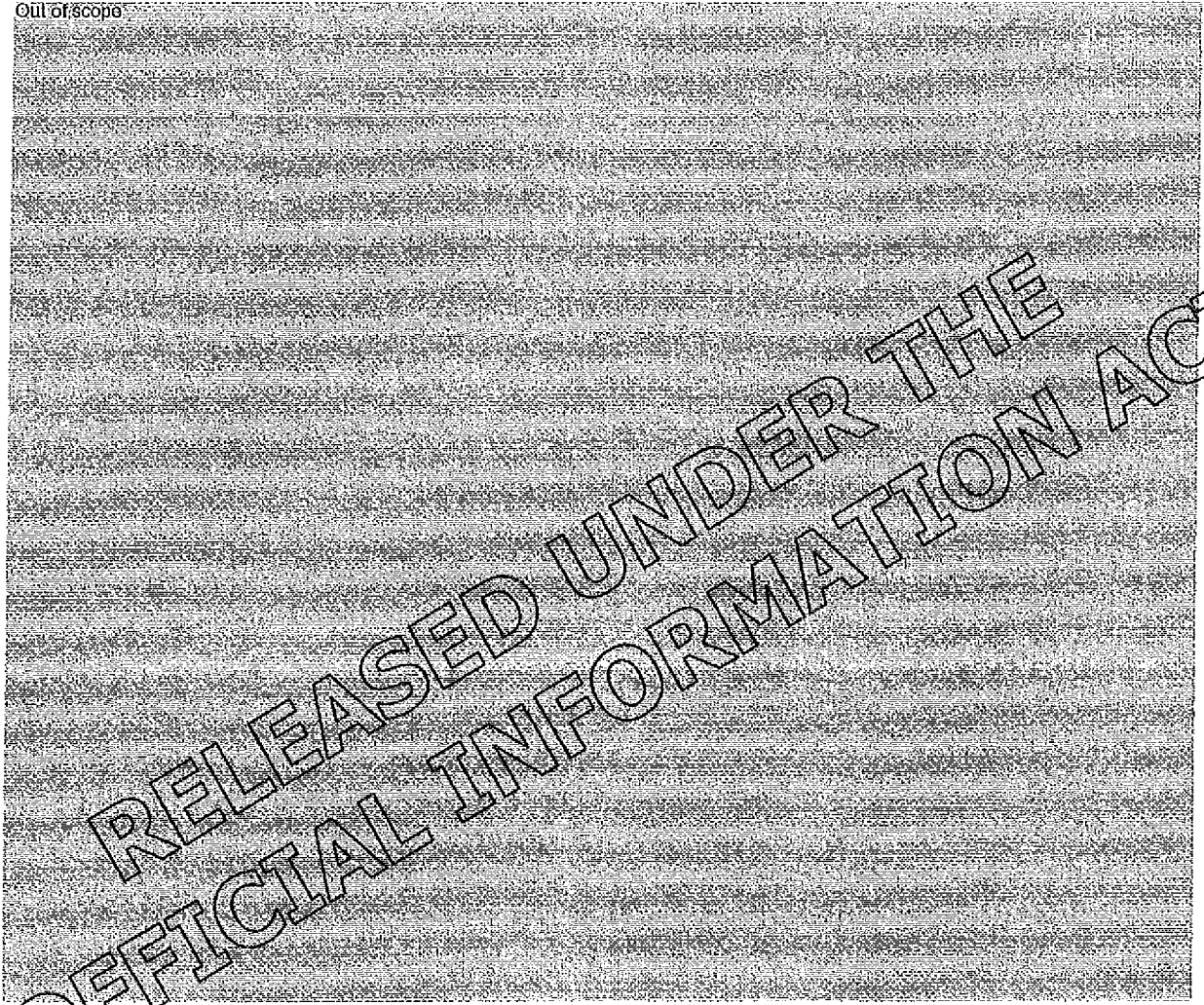
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Minister's feedback on quality of report:					1 Not satisfactory; 2 Fell short of expectations in some respects; 3 Met expectations 4 Met and sometimes exceeded expectations; 5 Greatly exceeded expectations
1	2	3	4	5	

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Annex 1: Information on 2degrees

Out of scope



2degrees Ownership

The ownership of 2degrees is Trilogy 60%, Communication Venture Partners 29%, Hautaki Trust 10%, and KLR Holdings 1%. KLR Holdings is the investment vehicle of 2degrees proponent Tex Edwards. Hautaki has a loan arrangement with Trilogy which allowed it to maintain its relative holdings in a past capital raising, and is seeking to sell shares to Iwi to repay this loan.

2degrees was launched in 2009 but dates back to 2001 with the formation of Econet Wireless NZ. The company was a venture between South Africa's Econet Wireless and the Hautaki Ltd, the commercial arm of Te Huarahi Tika Trust. Te Huarahi Tika, which represents Maori interests was given \$5 million by the Labour Government in 2000 and rights to buy 3G spectrum at a 5 percent discount. Most of these funds were invested in Econet Wireless NZ, which later became known as NZ Communications and eventually became 2degrees.

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Annex 2: Summary of 2degrees' submission to the 700 MHz consultation

The main points raised in 2degrees submission related to reserve price, competition, auction assignment phase, payment and implementation and coverage requirements.

Reserve Price to be as low as possible (maximum of \$157m which was the government's cost of clearing the spectrum of television broadcasting) as they want to acquire one third. The more an operator has to pay for 700 MHz spectrum the less they have to spend on deployment.

Competition would be reduced if 2degrees acquire less than one-third as they are already at a spectrum disadvantage. Relaxing acquisition limits will cause disparities. At most one operator should be allowed to acquire more than one-third and competition safeguards should be attached to it. Want price regulated regional roaming to support competition and choice in rural communities.

Auction Assignment Phase should not be a one shot option. Adjacency should be considered to ensure potential spectrum sharing opportunities, particularly among any parties with allocations less than one-third. Prefer 2nd price rule or multi-rounds.

Payment scheme terms should be 20% paid upfront followed by a 24 month moratorium then equal instalments of the balance over the remaining period of the early Management Rights (4 years)

Implementation and Coverage Requirements should be 4G-specific but able to be met using a combination of any spectrum bands as this would result in the same benefit of timely and widespread access to faster mobile data services. There is very little risk that 4G services will not be deployed at 700 MHz in the future, but that until appropriate handsets are available it would be uneconomic. They are sceptical that without mandatory collocation rules, operators will not offer collocation on new towers that are built to meet new cell site requirements. Concerned that the proposed requirements will force duplication of existing or planned 4G network deployment using 1800 MHz. Predict that the first top-end 4G handsets that use 700 MHz will not arrive on the NZ market until late 2014 or early 2015; mid and low price 700 MHz handsets will take longer to become available.

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