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Submissions  
Radio Spectrum Management Policy and Planning  
Ministry of Business, Innovation and Employment (MBIE)  
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## TRUSTPOWER SUBMISSION: PREPARING FOR 5G IN NEW ZEALAND

### 1 Introduction

- 1.1.1 Trustpower is a multiproduct retailer that offers a bundle of electricity, gas and telco products to its customers.
- 1.1.2 We currently retail to around 273,000 electricity connections, 88,000 telco customers and 38,000 gas customers.
- 1.1.3 We have a disruptive business model, and a track record of success competing with incumbent players.
- 1.1.4 Trustpower appreciates the opportunity to submit on the MBIE's March 2018 discussion document on *Preparing for 5G in New Zealand (Consultation Paper)* and agrees to the publication of this submission on the Radio Spectrum Management website.
- 1.1.5 MBIE is seeking feedback on the key issues and actions by Government to support the roll out of 5G services in New Zealand.
- 1.1.6 The Consultation paper is wide-ranging and covers topics such as:
  - a) How 5G will be used in New Zealand;
  - b) The impact of 5G allocation on market competition;
  - c) The mechanisms which can be used for allocating spectrum bands; as well as
  - d) A range of technical issues relating to the deployment of this new technology.
- 1.1.1 To respond to this Consultation Paper, we sought expert advice from Analysys Mason on the topics most relevant to our business.
- 1.1.2 Analysys Mason's report, a *Review of 5G policy objectives in the context of discussion document on 'Preparing for 5G in New Zealand'* dated 26 April 2018, is attached to this letter and is part of our submission.

## 2 Trustpower's views

### *Use of 5G*

- 2.1.1 Our expectation is that 5G will not only support increased mobile connectivity but also support new (as yet un-designed) services and products.
- 2.1.2 This suggests a broad view is appropriate on the potential use of 5G technology when determining future spectrum resource allocation requirements.

### *Network competition*

- 2.1.3 Under 5G experts are expecting that networks will move away from core hubs to more dispersed models.
- 2.1.4 Multiple virtual networks (network slicing) will be able to be created within a single physical network.
- 2.1.5 These network changes will give greater flexibility for the adoption of alternative business models to those used in the past.
- 2.1.6 In addition, the number of cell towers in urban areas required to deliver a cellular network will double while community concerns about the proliferation of cell towers show no signs of abatement.
- 2.1.7 This provides grounds to question whether MBIE should start its spectrum allocation with a presumption that network competition is the primary goal.
- 2.1.8 Trustpower notes that the trend towards convergence of fixed and mobile networks will continue in the 5G era.
- 2.1.9 This makes it important that the policies which guide the shift to 5G are developed with a longer term view of mobile market competitiveness in mind.
- 2.1.10 The outcomes of the Commerce Commission's study into mobile market services will be an important independent verification of what is required in this area.

### *Preferred regulatory approach*

- 2.1.11 If the Government wants to ensure 5G does become the basis for transformational change and is not just an increase in speed and data capacity for the benefit of customers of existing Mobile Network Operators (MNO's), then it should adopt options for the allocation and governance of spectrum rights which will enable more operators to deliver 5G services over time such as;
  - i. acquisition limits on spectrum holdings;
  - ii. regulatory conditions which require MNOs to offer access to third parties;
  - iii. spectrum sharing;
  - iv. setting aside specific spectrum blocks for non MNO use; and
  - v. regional licences which free up spectrum for other uses.
- 1.2 The appendix to the Analysys Mason report describes several examples from overseas where innovative and pro-competitive licensing approaches have been adopted or are currently under active consideration by regulators in other markets.

### ***Frequency bands***

- 2.1.12 We note that the proposed frequency bands are consistent with international approaches.
- 2.1.13 This is appropriate as it will facilitate equipment availability and choice and ease of global roaming.
- 2.1.14 These matters are important to our customers.

### ***Spectrum allocation***

- 2.1.15 We think that a combination of spectrum allocation methods and spectrum limits should be used consistent with the competition objectives we have identified.
- 2.1.16 Given the progressive roll out of spectrum allocation, it is also important that the spectrum allocation method is coherent over time.
- 2.1.17 As Analysys Mason have noted the end result might be different market structures across bands. For example:
  - a) In the lower bands there might be a limited number of national MNOs (with third party access obligations to promote retail competition), whereas
  - b) In the higher bands there could be allocations which support a larger number of operators owning their own spectrum and new forms of deployment.
- 2.1.18 The competition objectives will also be advanced if processes are put in place to ensure that spectrum purchased and not used is made available to other industry participants.

### ***Spectrum access for regional providers***


- 2.1.19 Trustpower is also concerned about the impact of market structure on regional services.
- 2.1.20 Addressing the digital divide will require that rural customers are also able to reap the benefits of vibrant competitive retail broadband markets.
- 2.1.21 Rural broadband services will be delivered exclusively on wireless technologies in future.
- 2.1.22 This suggests that the interests of wireless regional service providers will need to be protected by the Government's spectrum allocation plan.

## **3 Concluding remarks**

- 3.1.1 The roll out of 5G will set the framework for connectivity for the next decade and beyond.
- 3.1.2 A more dynamic retail market which involves greater proportion of competitive retail supply from mobile virtual network operators is both
  - a) more obtainable under the new technology and
  - b) more likely to maximise the benefit of 5G.
- 3.1.3 It follows that the Government needs to ensure that 5G is allocated and regulated in a way which means the new technology *does* facilitate transformative change for NZ business and consumers and *does not* lock up the existing market structure.
- 3.1.4 This will require a fresh approach.

If you have any questions on this submission, please do not hesitate to contact me at this email address:  
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Regards,

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