



Study of mobile telecommunications markets in New Zealand

A submission to the Commerce Commission

26 October 2018



Trustpower Limited welcomes the opportunity to provide a submission to the Commerce Commission as part of its study of telecommunications markets in New Zealand.

For any questions relating to the material in this submission, please contact:

Paul Bacon

Head of Retail markets

Trustpower Limited

Durham St

Tauranga

Private Bag 12023

Tauranga Mail Centre

Tauranga 3143

Email: paul.bacon@trustpower.co.nz

Phone: 021 791 336

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1 Introduction and overview

- 1.1.1 Trustpower Limited (**Trustpower**) welcomes the opportunity to provide a submission to the Commerce Commission (the **Commission**) on its *Study of mobile telecommunications markets in New Zealand – Issues Paper* (the **Issues Paper**).
- 1.1.2 Trustpower is a multiproduct retailer that offers a bundle of electricity, gas and telco products to its customers. We currently retail to around 273,000 electricity connections, 88,000 telco customers and 38,000 gas customers.
- 1.1.3 Ensuring competitive outcomes in mobile markets will allow New Zealand to continue to grow its digital economy and help reduce the digital divide. In today's world, telephone and internet access are increasingly considered necessities rather than luxuries. If New Zealand is to be a future-focussed nation then all consumers need to be able take advantage of the opportunities provided by digital technology, including mobile technology.
- 1.1.4 We acknowledge the Commissions desire to ensure markets keep pace with the rapidly changing technological landscape, services, and consumer demands. This current study will play an important role in ensuring the mobile markets deliver outcomes for the long term benefits of consumers.
- 1.1.5 We also thank the Commission for granting an extension to the timeframes for responses, and note that this will ensure a higher quality of engagement on the important matters raised in the Issues Paper.
- 1.1.6 The Issues Paper provides a useful stock-take of the current mobile landscape and regulatory settings and outlines a number of matters that require further consideration as mobile markets continue to evolve.
- 1.1.7 This submission provides our responses to the matters presented in the Issues Paper that are relevant to Trustpower as an energy and fixed telecommunications service provider, as well as a prospective mobile virtual network operator (**MVNO**).
- a) Section 2 presents our key findings and recommendations;
 - b) Section 3 explores the state of the mobile market in New Zealand, focussing specifically on the MVNO market and the benefits to consumers;
 - c) Section 4 explores the options to support MVNO entry; and
 - d) Section 5 outlines a number of relevant considerations relating to 5G spectrum assignment.
- 1.1.8 Appendix 1 presents our responses to selected questions raised in the Issues Paper.
- 1.1.9 Our submission is supplemented by an independent expert report from Analysys Mason which is provided as Appendix 2.

2 Key findings and recommendations

- 2.1.1 Trustpower considers that MVNOs are important to achieving positive market outcomes and that an increased presence of MVNOs would assist in ensuring the benefits of competition are fully realised by mobile consumers in New Zealand.
- a) We hold this position because there are a number of benefits to consumers in other markets where MVNOs are present, that do not exist in New Zealand. These include cheaper prices and increased product variety and consumer choice.

b) It is also important that New Zealand does not fall behind overseas countries, and continues to best enable consumers to benefit from future technological developments, which are expected following the roll-out of 5G.¹

2.1.2 The success of MVNOs in any market is to a large extent determined by their ability to gain access to wholesale inputs on reasonable terms as these represent by far the greatest input cost to a MVNO. Analysys Mason notes that²:

“The key factor for MVNO competitiveness is the nature of their wholesale agreement with the MNO.”

2.1.3 MVNO access arrangements are complex and need to allow for innovation by access seekers, otherwise, MVNOs are restricted in the type of competition they can offer. Commercially negotiated outcomes are the best way to achieve this, as they give access seekers and access providers the opportunity to tailor access arrangements to suit. **Our submission should be read in the context that our preference remains for commercially negotiated MVNO arrangements between access seekers and access providers.**

2.1.4 It is important that access providers have adequate incentives to participate in genuine commercial negotiations with credible access seekers. To the extent this is not the case then a regulatory backstop may be required to ensure adequate incentives exist for access providers to provide reasonable terms and conditions to credible access seekers.

2.1.5 Our recommendations to ensure competitive mobile markets in New Zealand are as follows:

Trustpower recommends that:

Recommendation 1: the Commission explores whether the right incentives exist for access providers to make ‘thick’ access available to MVNOs on commercially reasonable terms;

Recommendation 2: the Commission considers whether a regulated backstop for wholesale access to mobile services should be introduced;

Recommendation 3: the Commission uses this study to explore options to secure access for MVNOs to offer services in a 5G world; and

Recommendation 4: the management of spectrum allocation be reassigned to the Commission.

3 State of the New Zealand mobile market

3.1.1 The report prepared by Analysys Mason highlights a number of important points about the state of New Zealand mobile markets that we believe require the Commission’s attention.

- a) Competition is stagnant - the market share of mobile network operators has been largely stable since 2013.
- b) On-account penetration is comparatively low, whereas in more competitive markets a higher level of on-account penetration is present.
 - i. On-account customers include high-value customers, who should be attracting the most vigorous competition from service providers.

¹ Analysys Mason (2018). *Final Report for Trustpower: Review of 5G policy objectives in the context of discussion document on 'Preparing for 5G in New Zealand'* (Analysys Mason Ref: 201369-174, RSM No. 262.2). Available from <https://www.rsm.govt.nz/projects-auctions/current-projects/preparing-for-5g-in-new-zealand/submissions-received-other/236.2%20-%20Annex%20to%20Trustpower%20submission.pdf>

² Analysys Mason (2018). *Final Report for Trustpower: MVNO aspects of the Commission’s mobile market review* (Pg. 35).

- ii. However, as Analysys Mason discuss in their report, this customer segment in New Zealand is 'sticky', represents a low percentage of the overall market by international standards, and is not growing at a meaningful rate.
- c) The MVNO market is under-developed compared to Analysys Masons set of comparison countries.
 - i. We note that MVNOs come in different forms, with various levels of flexibility in offering services; from 'light'/'thin' MVNOs who may simply resell services already offered by the mobile network operator (**MNO**), to 'heavy'/'thick' MVNOs that are able to offer a wider range of services. 'Thick' MVNOs have more control over branding, pricing constructs and service offerings (including bundles) which results in greater innovation and better outcomes for consumers.
 - ii. Entry has occurred only at the 'thin'/'light' end of the spectrum, with no independent MVNO having made a significant impact in the market in terms of market share or dynamic retail offerings.
 - iii. The exception is Skinny, which is not an independent MVNO but a sub-brand of Spark.

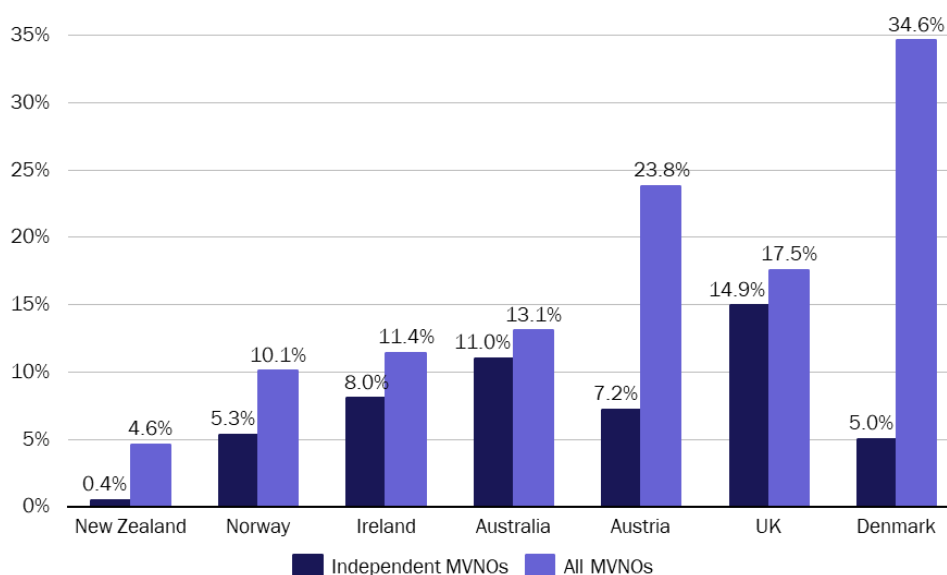
3.1.2 The New Zealand mobile market risks falling further behind overseas markets if these matters are not addressed.

3.1.3 The remainder of this section focuses on the further development of the MVNO market as a catalyst for promoting the long-term benefit of end-users of telecommunications services within New Zealand.

3.2 Low level of MVNO presence

3.2.1 As evidenced in the Analysys Mason report, the market share of MVNOs in New Zealand is below comparable countries:

- a) The market share of **independent** MVNOs in comparable countries varies from 5% to 15%, whereas in New Zealand the market share is only 0.4%; similarly
- b) The market share of **all** MVNOs/sub-brands in comparable countries varies from 10% to 35%, whereas in New Zealand the market share is only 4.6%.



3.3 Consumer benefits of MVNOs

3.3.1 Markets where there is a high presence of MVNOs experience consumer outcomes that are not evident in New Zealand.

3.3.2 The benefits of MVNO entry for consumers include:

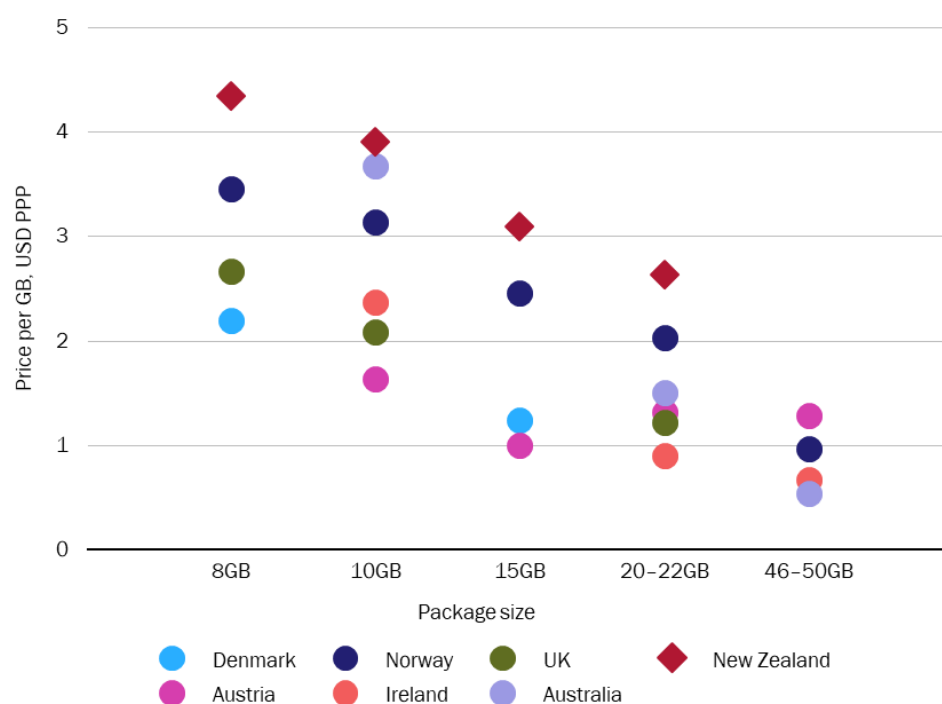
a) Cheaper prices:

- i. Evidence suggests that where MVNOs exist, consumers benefit from cheaper prices. For example, Denmark and Austria have both experienced price decreases following the entry of MVNOs. Analysys Mason explains:

“Denmark has a large number of MVNOs per capita and, according to the EDPR, “pricing for mobile broadband services in Denmark is significantly below the EU average.”³

“In Austria, following the merger of Hutchison 3G and Orange Austria, the regulator attached a condition that the merged entity must accept up to 16 MVNOs on its network. According to information from the Federal Chamber of Labour, “the new low-end brands with simple and transparent pricing effectively contributed to cheaper prices”. The EDPR also notes that the availability and quality of service is good in Austria, with competitive prices, and that regulatory remedies to encourage the entry of MVNOs contributed to the positive rebound of pricing trends. Similarly, according to BEREC, a reduction in prices in the Austrian market was “likely caused by competitive pressure from MVNOs, which gained significant market share since entry at the beginning of 2015.”⁴

- ii. New Zealand consistently has the highest priced per GB services compared to the Analysys Mason comparator set of countries with higher MVNO penetration:



b) Increased product variety and consumer choice:

- i. The presence of a number of MVNOs in a market means greater choice for consumers. Analysys Mason states:

³ Analysys Mason (2018). *Final Report for Trustpower: MVNO aspects of the Commission’s mobile market review* (Pg. 16).

⁴ *Ibid.* pg. 16-17.

"[I]f a mobile market includes a wide variety of MVNOs, consumers have access to more choice, since individual brands attempt to differentiate themselves to attract specific segments of the market."⁵

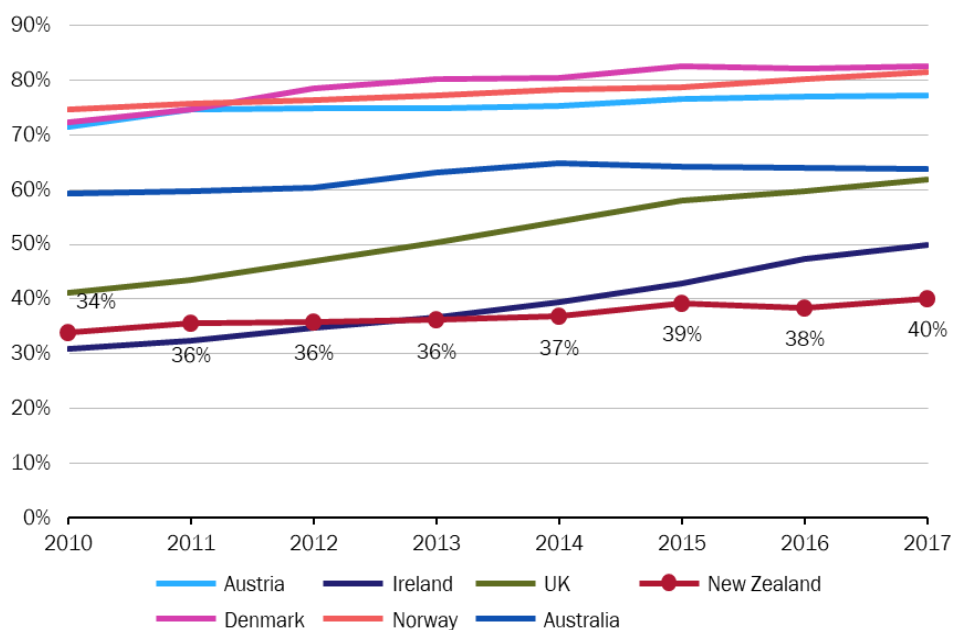
- ii. Firstly, consumers may benefit from products with higher data allowances. The range of products available to consumers, particularly large data packages, is limited when there is no substantive competition. Analysys Mason note that in New Zealand, where there is a negligible number of MVNOs:

"MNOs do not offer very large mobile data packages since the "unlimited" package only offers high speeds for data consumption up to 22GB, and the largest package offered is 30GB."⁶

- iii. Secondly, consumers may benefit from cheaper on-account services, making these services accessible to a wider segment of consumers. Analysys Mason explains:

"Given the growing importance of mobile voice and data services, customers prefer the convenience of postpaid contracts, since they avoid having to make frequent top-ups up or running out of credit. In addition, capped postpaid contracts are an attractive feature for lower-credit users such as teenagers."⁷

While most developed countries (within Analysys Masons’s comparator set) share of on-account (or postpaid) contracts range between 50% to 80%⁸, New Zealand has one of the lowest at only 40%. Further, unlike other countries that have seen the introduction of MVNOs, this level has been relatively flat for the past eight years.



Analysys Mason notes that on-account customers tend to be higher value than pre-paid customers, predominantly because they stay with providers for a longer period of time and have higher usage.⁹

- iii. Finally, consumers may benefit from new innovative and niche offerings. This is going to become increasingly important as new services become available to consumers with the deployment of 5G. We discuss this in more detail later in Section 5.

⁵ Analysys Mason (2018). *Final Report for Trustpower: MVNO aspects of the Commission’s mobile market review* (Pg. 16)

⁶ Ibid. pg. 18

⁷ Ibid. pg. 10

⁸ Ibid. pg. 11 notes that average of 63% in Western Europe, more than 80% in countries like Norway and Denmark, and as high as 89% in the Developed Asia–Pacific.

⁹ Analysys Mason (2018). *Final Report for Trustpower: MVNO aspects of the Commission’s mobile market review* (Pg. 18)

3.3.3 To some extent, we have already seen the potential impact of meaningful MVNO entry into the New Zealand market. Spark has developed its sub-brand, Skinny, which operates as an MVNO. This success demonstrates that where access provider and access seeker incentives are appropriately aligned there is the potential for material MVNO market penetration and a resulting improvement in competitive outcomes.

3.4 Thick vs Thin MVNOs

3.4.1 Facilitating access at the level of a simple reseller ('light'/'thin'), whether under the network operator's branding or a separate brand, is unlikely to meaningfully move the dial in respect of market outcomes. Resellers have entered the New Zealand market on commercial terms, but their ability to achieve economic scale has not been demonstrated.

3.4.2 We believe that for a competitive landscape to emerge in New Zealand, MVNO entry needs to occur at the 'thick' end of the spectrum. This would enable MVNOs to move the dial on competition by developing the products, pricing constructs and consumer experience in a way where they can bring real value to the market with distinctive offerings.

3.4.3 In our view, the entry of 'thick' MVNOs will provide the most benefit to consumers. Accordingly we recommend the Commission should consider whether the right incentives exist for access providers to provide access to 'thick' MVNOs on commercially reasonable terms {[Recommendation 1](#)}.

3.5 Consumer benefits of bundling mobile and fixed-line services

3.5.1 Consumers benefit from bundling services in a number of ways, including savings associated with taking multiple services from a single provider, and the ease of having a single bill.

3.5.2 Fixed-line and mobile bundles appeal to high-value customer segments. Mobile and fixed-line convergence (and increasingly substitution) are continuing to grow. This creates the potential for MNOs to foreclose more valuable consumer segments from fixed-line only providers. As Analysys Mason states:

"The anticipated increase in popularity of bundles in New Zealand's telecoms market, as well as the shift from prepaid to contract subscriptions, suggests that customers will increasingly choose to purchase domestic telecoms (and family member) bundles inclusive of mobile services. The convenience and savings offered by fixed-mobile bundling means that operators which lack a mobile product will find it much harder to attract high-value customer groups, regardless of the other telecoms, TV or utility products offered in the bundle."¹⁰

3.5.3 This differs materially to bundling fixed-line and electricity services as the inputs required to provide these services to consumers are easily accessible as there are low barriers to entry. In the case of:

- a) the electricity market, there is an established and open wholesale market and supporting arrangements that determine wholesale input costs for all participants, and access to networks services is regulated, and
- b) the fixed-line telecommunications market, there is regulated open access to these services.

3.5.4 This can be evidenced by the entry of Trustpower, Contact and Nova in the fixed-line market, and megaTEL and Vocus in the electricity market. The benefits of such entry have been notable.

3.5.5 It is important the Commission considers the future impact of mobile fixed-line convergence and substitution on both the mobile and fixed-line markets.

¹⁰ Analysys Mason (2018). *Final Report for Trustpower: MVNO aspects of the Commission's mobile market review* (Pg. 35)

4 Options to support thick MVNO entry

4.1.1 In section 3 of this submission we outlined in detail the benefits to consumers associated with the entry of ‘thick’ MVNOs.

4.1.2 How the mobile telecommunication landscape may change over time will be an important consideration for the Commission when exploring whether options to support MVNO entry are needed. Most notably the Commission needs to consider:

- a) the mobile markets during the transition to 5G networks; and
- b) post-5G networks,

while recognising the transition to 5G networks will occur over an extended period of time and we will remain reliant on existing 3G and 4G services for many more years to come.

4.2 Preference for commercial negotiation

4.2.1 We remain of the view that access to MVNO services should be via commercial negotiations. Commercially negotiated access allows for both access providers and access seekers to benefit by tailoring the conditions of access to meet their respective needs.

4.2.2 However, should genuine commercial negotiations by credible access seekers fail, consumers will miss out on the benefits associated with the entry of MVNOs. A credible regulatory backstop may provide the incentives necessary to encourage a commercially negotiated solution, as explored further below.

4.3 Introduction of a regulatory backstop

4.3.1 As outlined in [Recommendation 1](#) we consider it is important for the Commission to consider whether the right incentives currently exist for access providers to make ‘thick’ access available to MVNOs on commercially reasonable terms.

4.3.2 In the event that the Commission finds that the right incentives do not currently exist, then the Commission should consider whether a regulated backstop for wholesale access to mobile services should be introduced [{Recommendation 2}](#).

4.3.3 A credible regulatory backstop would ensure that:

- a) commercially negotiated access continues to be encouraged as the first step for seeking access;
- b) a timely regulatory response is available if market incentives do not allow for a commercial outcome; and
- c) there is a persistent incentive for access providers to engage in commercial negotiations with credible access seekers to compete to make available wholesale input on reasonable terms.

4.3.4 A key consideration for the Commission, if it were to look into options for introducing a regulatory backstop, would be the scope of the service.

- a) Assuming the Commission agreed that the service should be at the ‘thick’ end of the spectrum, the choice would primarily be between volumetric and capacity-based access.
- b) In making this determination, the Commission should consider the market context detailed in the Analysys Mason report that demonstrates significant growth in data consumption as well as falling unit prices.

4.3.5 As explained in the Analysys Mason report:

a) Volumetric access is where wholesale services are defined and costed based on individual units of supply – per minute of voice, per SMS and per megabyte of data. Analysys Mason notes, “unlimited” or high data services are challenging for MVNOs to offer under a volumetric access arrangement. MVNOs can face high wholesale charges if wholesale prices are not competitive and regularly updated as consumer demands and products evolve.

b) Capacity-based access on the other hand allows MVNOs to purchase a proportion of total network capacity. The Analysys Mason report shows there are distinct benefits to capacity-based access services relative to volumetric access. Capacity based access enables MVNOs to adjust retail offerings over time without the need to re-negotiate wholesale access with the network operator. This promotes a high level of responsiveness from the MVNO, ensuring competitive dynamics play out in the retail market in real time.

In addition, there is a strong incentive on the MVNO to make the best use of the capacity they have paid for. The onus is on the MVNO, its business plan and retail offerings to fill network capacity and recover its costs. This promotes entrants who have a genuine appetite to invest and will have a plan to achieve a sustainable market position.

4.3.6 While capacity-based access appears to have a number of benefits, its implementation is problematic as it is difficult to open up capacity-based access on fair pricing terms on established, depreciated networks where forward-looking cost estimates may not be the most appropriate basis for setting prices. This situation is complicated further given there are three network operators that will have different assets values and cost profiles.

4.3.7 In this context, a regulatory backstop based on volumetric access may be the most sensible short-term solution.

4.4 5G presents opportunities

4.4.1 The introduction of 5G offers opportunities that have the potential to reshape mobile markets in New Zealand.

4.4.2 The move to 5G technology and services makes capacity-based access more feasible as:

- a) new capabilities, such as network virtualisation and slicing, will reduce the impediments to securing the benefits of capacity-based access services; and
- b) network operators would benefit from fixed income for a proportion of their network’s capacity.

4.4.3 We recommend that the Commission uses this study to explore options to secure access for MVNOs to offer services in a 5G world {[Recommendation 3](#)}. These options may include:

- a) facilitating the entry of a fourth mobile network owner that provides open wholesale access to MVNOs;
- b) facilitating the entry of more regional players and making appropriate changes to national roaming regulations;
- c) creating a regulatory backstop for MVNO services; and/or
- d) placing conditions on the allocation of 5G spectrum that requires a proportion of capacity be for the use of MVNOs.

5 Consideration of 5G spectrum allocation

5.1.1 The allocation of 5G spectrum in New Zealand will set the scene for mobile telecommunications markets in the future and requires careful consideration to ensure that

consumers benefit from future technological developments, not just with new network capability but with diverse and dynamic retail service competition.

5.2 Implication of spectrum allocation on entry of MVNOs

5.2.1 As noted above, we suggest that the Commission considers the allocation of 5G spectrum as a means to facilitate the entry of MVNOs. Specifically, the terms of any award of 5G spectrum could require that 5G spectrum owners to:

- a) offer wholesale access to fall-back 4G (and 3G) networks for retail providers who do not own a 4G network, and
- b) make available a specified minor proportion of 5G capacity for alternative providers, either as specific network slices or a conventional share of total network capacity.

5.2.2 We recognise that there are trade-offs inherent in this type of proposal. One risk is that imposing these obligations will reduce the potential value of 5G spectrum to potential bidders, as they may not be prepared to pay the same amount for the spectrum licence. However, this risk needs to be considered in the context of the wider benefits to consumers from potential opportunities for innovation and more diverse retail supply that could result from optimising the utilisation of 5G spectrum.

5.2.3 The Commission is well-placed to assess these trade-offs, and determine the outcome that best promotes the long-term interests of consumers as outlined in [{Recommendation 3}](#).

5.3 Emergence of new competition considerations as a result of technological change

5.3.1 The introduction of 5G will provide new opportunities to consumers in New Zealand, and will lead to as yet unknown future technological developments. This will potentially raise a number of new competition considerations for the Commission to explore.

5.3.2 As Analysys Mason describes in their expert report on Radio Spectrum Management's consultation on 5G allocation¹¹:

"Virtualisation in radio access networks, and in core networks, will in time result in the delivery of configurable end-to-end network slices, which can be provisioned to provide unique services to different types of user/customer, based on their needs. This could be relevant when considering competition at the retail level. To deploy 5G, operators can use a 4G network as an underlay ('non-standalone') initially, and in subsequent deployments they can operate 5G standalone networks. These 5G technological developments will bring new capability to mobile networks that can be expected to drive innovation and could also increase the demand for spectrum beyond that of traditional nationwide MNO spectrum demands." {underline added for emphasis}

5.3.3 The delivery of network slicing introduces the need to think about competition in future mobile markets more broadly where these developments could enable a variety of different services, such as healthcare services, and the introduction of autonomous vehicles. The market structures that emerge may vary across bands of spectrum¹²:

"For example, lower bands where demand is especially high (and bandwidth is limited) might support a small number of mainly national operators – potentially with additional retail competition – whereas the higher bands have capacity to support spectrum ownership by a larger number of operators, and new forms of deployment."

5.3.4 The Commission needs to be mindful of this when approving spectrum allocations, or otherwise contributing to that discussion through recommendations in this study.

¹¹ See Analysys Mason (2018). *Final Report for Trustpower: Review of 5G policy objectives in the context of discussion document on 'Preparing for 5G in New Zealand'* (Pg. 4, AM Ref: 201369-174, RSM Tech. No. 262.2). Available from <https://www.rsm.govt.nz/projects-auctions/current-projects/preparing-for-5g-in-new-zealand/submissions-received-other/236.2%20-%20Annex%20to%20Trustpower%20submission.pdf>

¹² Ibid. pg. 4.

- 5.3.5 There is potential in this new world for exclusive arrangements to emerge between access providers and access seekers that preclude the entrance of other providers, and thus may create new monopolies in markets that are yet to emerge. Analysys Mason suggest that¹³:

"[a]n overall framework should be considered, especially given that 5G spectrum release will occur over a period of several years, and so there is a need to have a spectrum release strategy which remains coherent over time."

5.4 Reassignment of spectrum management roles

- 5.4.1 In the new 5G world the allocation of spectrum is going to be inextricably linked to ensuring competitive outcomes eventuate in mobile markets for the long-term benefit of consumers.
- 5.4.2 Given the considerations above, there is now a strong case for the Commission to take over direct responsibility for spectrum management issues from the Ministry of Business, Innovation and Employment. This would ensure that competition and access issues are not overlooked in the allocation and use of spectrum, and that all relevant issues are considered together. The context of 5G makes a seamless integration of spectrum issues all the more important.
- 5.4.3 We consider that the Commission is best placed to assess the trade-offs inherent with the use and allocation of spectrum while keeping consumer interests in mind. Subsequently, we recommend that the Commission should have primary responsibility for managing spectrum allocation {[Recommendation 4](#)}.

¹³ Ibid. pg. 5.

Appendix A Responses to questions in the Issues Paper

The following table presents Trustpower's responses to relevant questions raised in the Issues Paper. Note that we have not responded to all questions.

Question	Response
Competitive conditions	
<p>1. How, and to what extent, do competitive conditions for mobile services vary by customer segment in New Zealand?</p>	<p>1.1 The Analysys Mason report sets out important evidence indicating that on-account penetration is low and that competition in respect of this high value segment is more subdued than for lower value segments of the market. This could be because these consumers are less price sensitive, and bundles and other types of added value offerings make these consumers more 'sticky' to the incumbent service provider. However, it may also be these consumers are simply disengaged from the market and will not perceive there to be any benefit from targeted attempts to increase switching. We anticipate that there are also likely to be unmarketed offers from service providers that are designed to specifically retain certain customers that are both valuable and price-sensitive.</p>
Bundling of mobile services	
<p>3. How, and to what extent, have consumers benefitted from bundling of mobile services (the discount vs the increased complexity of switching provider)?</p>	<p>3.1 Consumers have benefitted from discounts by bundling fixed and mobile services, as well as with other services such as energy. For example, Spark offers a \$10 per month discount if customers have home broadband as well as an eligible pay-monthly mobile plan. Similarly, 2degrees offers a \$10 discount on its broadband plans if customers have an existing pay-monthly plan. It is important to highlight that these discounts relate to higher-value post-paid mobile plans, and not pre-paid services. As a result, competition for a material proportion of higher-value mobile segments is linked to the ability to offer fixed broadband as these high-value users are more likely to seek bundled offers combining fixed and mobile services from one service provider.</p>

	<p>3.2 Additionally, consumers have been able to take advantage of the ease of being able to pay through a single monthly bill payment (bank debit), due to combined billing.</p> <p>3.3 More providers offering fixed-mobile bundles would make comparison easier and give consumers more choice.</p> <p>3.4 We note that pre-paid customers do not have access to these bundles and cannot benefit from discounts and the convenience of fewer bills. The Analysys Mason report shows the increasing importance of service bundles across all consumer classes. Although competition for lower value customer segments is stronger than higher value segments, there is still a risk that lower value customers will miss out on the benefits of a wider choice of bundles and competitive prices. Competition needs to be assessed across all its dimensions to understand if the market is operating efficiently.</p>
<p>4. What are the constraints on non-MNO fixed line broadband providers' ability to compete by supplying their own bundles, such as bundling of fixed line broadband and electricity by Trustpower and Vocus?</p>	<p>4.1 Trustpower has demonstrated that bundles including fixed-line broadband and electricity appeal to a segment of the market. We have been actively cross selling fixed-line broadband services to existing energy customers for over ten years, and since 2014 have used a bundled (energy and broadband) proposition to acquire new customers that value the benefits of this bundle. There is widespread recognition in the industry that Trustpower's entry into the market coincided with significantly better uncapped broadband offers for consumers and an increase in the rate of adoption of fibre services. Substantial investment in highly competitive differentiated offerings over this period has seen Trustpower achieve market share approaching 5% in fixed-line broadband.</p> <p>4.2 Customers looking for a mobile deal or a mobile-fixed bundle, do not consider Trustpower an option since we are unable to offer "must have" mobile services. The convergence of mobile and fixed-line services alongside ongoing mobile to fixed-line substitution will inevitably result in foreclosure of large high value segments of the market to fixed-line providers unable to access mobile services.</p> <p>4.3 This is why it is important for the success of retail mobile markets that credible access seekers like Trustpower are able to access wholesale mobile services on reasonable commercial terms. We support the Commission considering whether the right incentives are currently in place for this to eventuate, and in the case the Commission finds there</p>

	<p>are not sufficient incentives, considering the introduction of a credible regulatory backstop.</p> <p>4.4 In addition, as we explain in our cover letter, the open access nature of the electricity retail market in New Zealand essentially eliminates any potential for foreclosure or reduced competition. Access to wholesale inputs is not problematic for any retail service provider wanting to bundle broadband and electricity as demonstrated by the market offers of Vocus, Contact Energy, Nova Energy and megaTEL.</p>
5. What are the reasons for high retail prices for higher volume bundles of mobile services in New Zealand compared to other countries?	5.1 Evidence provided by Analysys Mason suggest that prices for higher volume bundles are lower in comparison countries where MVNOs have a more material competitive impact.
6. What are the reasons for high retail prices for standalone mobile data services in New Zealand compared to other countries?	6.1 Evidence provided by Analysys Mason suggest that prices for standalone mobile data services are lower in comparison countries where MVNOs have a more material competitive impact.
7. How are mobile data usage trends expected to evolve in the next few years, and how might that affect suppliers of mobile services?	<p>7.1 Average growth in data usage, as evidenced by Analysys Mason, is expected to continue to grow over the next few years.</p> <p>7.2 The Commission should consider MVNO access arrangements within the context of this growing demand for data by customers.</p>
8. How do you view mobile calling and messaging services evolving, given the emergence of OTT services?	8.1 While OTT services are increasingly being used as substitutes for traditional calling and messaging services, these services will remain important to many market segments (eg older demographic) for the foreseeable future.
9. Do you agree that we have identified the relevant measures of mobile service quality?	9.1 We agree.

<p>10. What further measures and evidence may be relevant for monitoring retail service quality?</p>	<p>10.1 No further measures are required from our perspective.</p>
<p>MVNO based entry</p>	
<p>12. Do you agree we have described the key factors relevant to wholesale competition both currently and into the immediate future? Are there any other factors likely to influence wholesale competition for mobile services, going forward?</p>	<p>12.1 We consider there are other factors that are very relevant to the state of wholesale competition. Technology and services based on 4G will begin being supplemented by 5G services from 2020, with 5G coverage evolving over the next decade. In this environment wholesale access arrangements will only be commercially viable and sustainable for access seekers where technological evolution and the changes these technologies introduce have been taken properly into account. Ensuring the right incentives exist for access providers to make available reasonable terms of access will ensure that optimal consumer outcomes eventuate.</p> <p>12.2 Additionally, the way that new 5G spectrum is made available to the market could affect wholesale competition. Conditions on access to spectrum that reserve some network capacity for MVNOs would change the competitive dynamic significantly. This would align expectations between access providers and access seekers, and has the additional benefit of providing network operators the opportunity to understand their wholesale obligations prior to investing in spectrum and network assets. The implications of spectrum allocation and conditions for competition are significant, which is why we support a more direct role for the Commission in these decisions.</p> <p>12.3 Finally, a key factor for the Commission to consider is whether a credible regulatory backstop in respect of wholesale access is required. We have emphasised the importance of this with respect to commercial arrangements for MVNO access services in the main body of our submission above.</p>
<p>13. Please describe how you see wholesale competition evolving over the next 2-5 years.</p>	<p>13.1 It is unlikely that there will be major changes from the current limited wholesale competition environment in the absence of new entry from an open access network operator.</p>

	<p>13.2 We support the Commission considering whether there are sufficient incentives on network operators to offer wholesale services on attractive commercial terms, and if these incentives may be limited by the vertically integrated nature of network operators businesses and their own retail aspirations. In the case that the Commission determines there are not sufficient incentives then they may need to consider the introduction of a credible regulatory backstop.</p> <p>13.3 We note that once established MVNOs have gained a sustainable share of the mobile market, they have the potential to stimulate wholesale competition by being able to periodically switch host MNO.</p>
<p>14. Why do MVNOs account for a small share of subscribers and revenue in New Zealand?</p>	<p>14.1 Independent MVNOs account for less than 0.5% of the share of subscribers in the market. It is difficult to identify the incentives that exist for vertically integrated MNOs to offer wholesale access solutions to MVNOs as it may have implications for their retail market share or profitability.</p> <p>14.2 There appears to be no reason why a vibrant MVNO market in New Zealand could not achieve market share of 10 to 15%, consistent with Analysys Mason’s observations of other countries. In this scenario MVNOs would be serving customer niches and discerning segments with differentiated propositions and offers. The presence of Skinny Mobile, which has rapidly gained over 4% market share, demonstrates that the retail market can successfully support additional brands and propositions for sub-segments of the market.</p>
<p>15. How have the competitive conditions changed in the wholesale mobile services market? What impact has 2degrees had in the wholesale market in recent years?</p>	<p>15.1 The entry of 2degrees into the wholesale market provided Trustpower with another potential supplier of wholesale services. Our MVNO sourcing activity is subject to commercial confidentiality agreements so it is inappropriate to comment further.</p>
<p>16. Has 2degrees’ completion of deployment of its national network changed, or is likely to change, the competitive environment for wholesale mobile</p>	<p>16.1 Please see our response to 15.1.</p>

<p>service going forward? If so, please describe</p>	
<p>17. Are MVNOs able to negotiate competitive wholesale access arrangements with MNOs? What are the key constraints facing MVNOs in New Zealand, and how do they differ from other countries?</p>	<p>17.1 Our MVNO sourcing activity is subject to commercial confidentiality agreements so it is inappropriate to comment about the specific nature of those arrangements.</p> <p>17.2 Commercial negotiations between access seekers and providers are complex and time consuming, so negotiating commercial access is not straight forward. In spite of this, commercially negotiated outcomes remain our preference as they allow both access providers and access seekers to benefit by tailoring the conditions of access to meet their respective needs.</p> <p>17.3 It is important to distinguish between:</p> <ul style="list-style-type: none"> a) credible access seekers, with robust plans for market entry and an ability to achieve sustainable growth, that have the ability to create improved consumer outcomes; and b) access seekers who cannot demonstrate this ability who, if given access, create a burden of costs on industry participants that may ultimately be passed on to consumers. <p>17.4 We support the Commission considering whether there are sufficient incentives for access providers to make network access available to credible access seekers who have shown a genuine concerted effort to obtain access. If there are not considered to be sufficient incentives the introduction of a regulatory backstop should be investigated.</p>
<p>18. Where MVNOs have entered the market and expanded in other countries, to what extent has such entry been the result of commercial agreements, or based on regulated MVNO access or other conditions imposed by regulatory or competition authorities (such as</p>	<p>18.1 Some countries in Western Europe with a healthy MVNO market share are subject to wholesale regulation. A few examples follow:</p>

conditions of mergers and/or obligations on spectrum licences)?

Figure 1: MVNO regulation in selected Western European countries [Source: Analysys Mason, 2018]

Country	Regulation	Number of MNOs	Number of MVNOs	MVNO market share
UK	None	4	24	18%
Austria	Hutchison Drei's takeover of Orange Austria was conditional upon offering ongoing wholesale access	4 recently merged to 3	36	24%
Ireland	Merger of Hutchison 3G UK and Telefónica Ireland under the condition to admit MVNOs on the network Allocation of 900MHz spectrum conditional to allowing virtual operators to operate over the frequencies	4 recently merged to 3	7	11%
Denmark	Players with significant market power (TDC in the early stages of market development) were obliged to enter into MVNO arrangements	4	58	35%
Norway	Operators with SMP (currently Telenor) are obliged to meet all reasonable requests for access to its mobile network on terms which allow smaller companies to make a profit, as per a regulatory ruling from July 2016	3 recently merged to 2, plus a new third entrant	17	10%

19. To what extent has the emergence of MVNOs overseas resulted in improved outcomes for consumers in those countries? What effect has MVNO entry had in other countries on pricing, choice, and investment?

19.1 Analysys Mason has confirmed in its report that the emergence of MVNOs overseas has enabled consumers to have access to more choice. The increase in competition from MVNOs typically leads to a decrease in retail prices. MVNOs have also increased innovation in the types of services offered at the retail level, such as bundling or through the addition of niche-segment telecommunications service benefits (e.g. international

	<p>minutes), through the inclusion of entertainment offerings, or non-telecommunications service loyalty points.</p> <p>19.2 The analysis of the price of contract mobile bundles offering 5GB to 20GB of data and unlimited minutes and SMS in Analysys Mason’s comparator set of countries, has shown that MVNOs:</p> <ul style="list-style-type: none"> a) provide more choice and additional bonuses; and b) consistently offer lower prices than the main MNOs. <p>19.3 We note that not all consumers would necessarily choose the brand and service characteristics of a low-price MVNO, particularly a ‘no-frills’ service MVNO, but these options are an important contributor to wider retail market competition beyond that offered only by mainstream MNO brands.</p> <p>19.4 Analysys Mason advise in their report that the investment impact of MVNOs is hard to quantify, but there is little evidence to suggest it has a detrimental impact on network investment. This is because MVNOs can:</p> <ul style="list-style-type: none"> a) contribute directly to the network business case with wholesale payments; and b) result in additional investment in more diverse retail channels and service differentiation.
<p>20. What are the risks that fixed line only broadband providers could be foreclosed by providers of mobile and fixed line broadband bundles and what are the potential consequences of that for competition?</p>	<p>20.1 Please see our response to Question 4 above.</p> <p>20.2 Fixed-line and mobile bundles are increasing in importance as consumers want to benefit from the ease of acquiring all their telecommunications services with one provider as well as benefiting from discounts, family packages, etc. The inability of fixed providers to offer mobile services will increasingly exclude fixed-line only providers from important segments of the market. This limits competition in the mobile market, as well as reducing competition in the fixed-line market.</p> <p>20.3 Convergence of fixed-line and mobile services over time will result in consumers no longer distinguishing between services from a connection experience perspective. This will mean that providers who are able to offer solutions that provide connectivity</p>

	<p>regardless of location will have a material competitive advantage over those only able to offer fixed-line connections. It has the potential to lead to higher prices in both fixed-line and mobile markets.</p>
<p>21. To what extent, and in what ways, do the current spectrum holdings constrain competition in the supply of retail or wholesale mobile services in New Zealand?</p>	<p>21.1 Wholesale access has not been considered as part of previous spectrum allocation decisions.</p>
<p>Infrastructure sharing</p>	
<p>33. How important is infrastructure sharing likely to be to facilitate the widespread and timely deployment of 5G services—urban and rural—in New Zealand by improving the economics of a 5G deployment?</p>	<p>33.1 The salient point arising from the overseas experience is that full facilities-based competition is less likely to be considered the primary goal of mobile market regulatory policy in the emerging 5G environment.</p> <p>33.2 MVNO entry through appropriately tailored wholesale access may be an effective substitute for full infrastructure sharing (in the sense of co-investment), both de-risking investment for network operators and providing additional levels of meaningful retail competition.</p>
<p>Network slicing</p>	
<p>42. Is network slicing likely to increase the presence of non-traditional providers such as Apple and Google in mobile markets, and are these providers likely to be able to negotiate competitive wholesale access arrangements with MNOs?</p>	<p>42.1 The delivery of network slicing introduces the need to think about competition in future mobile markets more broadly. This is because network slicing could enable a variety of different services to emerge which are reliant of mobile network access, such as healthcare services, and the introduction of autonomous vehicles.</p> <p>42.2 The Commission needs to be mindful of this when approving spectrum allocations, or otherwise contributing to that discussion through recommendations in this study.</p>

<p>43. Given the non-traditional providers' economies of scale, what are the likely benefits and harms that may materialise for existing MNOs, potential MVNOs and consumers in New Zealand should a non-traditional provider enter the market?</p>	<p>43.1 There is potential in this new world for exclusive arrangements to emerge between access providers and access seekers that preclude the entrance of other providers, and thus may create new monopolies in markets that are yet to emerge.</p>
<p>Spectrum issues</p>	
<p>45. What restrictions, if any, ought to be placed on the forthcoming 5G spectrum allocation to best facilitate competition in 5G services?</p>	<p>45.1 We suggest that the Commission considers the allocation of 5G spectrum as a means to facilitate the entry of MVNOs. Specifically, the terms of any award of 5G spectrum could require that 5G spectrum owners:</p> <ul style="list-style-type: none"> a) offer wholesale access to fall-back 4G (and 3G) networks for retail providers who do not own a 4G network, and b) make available a specified minor proportion of 5G capacity for alternative providers, either as specific network slices or a conventional share of total network capacity. <p>45.2 We recognise that there are trade-offs inherent in this type of proposal. One risk is that imposing these obligations will reduce the potential value of 5G spectrum to potential bidders, as they may not be prepared to pay the same amount for the spectrum licence. However, this risk needs to be considered in the context of the wider benefits to consumers from potential opportunities for innovation and more diverse retail supply that could result from optimising the utilisation of 5G spectrum.</p> <p>45.3 The Commission is well-placed to assess these trade-offs, and determine the outcome that best promotes the long-term interests of consumers as outlined in {Recommendation 3}.</p>