1 Introduction

The Australian Competition and Consumer Commission (ACCC) is undertaking a market study into the communications sector. As part of the market study, the ACCC has released an issues paper, Competition in evolving communications markets – Issues Paper September 2016 (the Issues Paper). The ACCC has invited interested parties to make submissions in response to the Issues Paper.

Vocus Communications Limited (Vocus) is one of the ‘big four’ telcos in Australia.1 In addition to the Vocus brand, the Vocus group includes the following brands: Commander, iPrimus, dodo, Engin, M2 Wholesale and amnet Broadband. As an active competitor in telecommunications markets in Australia, Vocus is directly affected by, and has an interest in, the issues identified and discussed in the Issues Paper. Vocus therefore welcomes the opportunity to respond to the Issues Paper.

2 Overview of this submission

The Issues Paper is well written and logically structured. The Issues Paper is, rightly, very broad in scope, and it identifies many different issues. Vocus’ consideration of the Issues Paper has taken place in light of the fact that the ACCC’s market study is not an end in itself but is a means to allow the ACCC to better understand where and how the ACCC should focus and use its regulatory powers. In considering the issues that are discussed in the Issues Paper, Vocus has identified:

- issues that require ACCC intervention or a revision to the ACCC’s current approach;
- issues that have the potential to harm competition but where, in Vocus’ view, there is no immediate need for the ACCC to intervene; and
- aspects of telecommunications economic regulation that are working well.

2.1 Issues that require ACCC intervention or a revision to the ACCC’s current approach

Vocus has identified two issues where Vocus believes ACCC intervention, or a revision to the ACCC’s current approach, is required to prevent harm to competition. These issues are:

- **NBN Co Connectivity Virtual Circuit (CVC) pricing.** This issue is discussed in section 3 below. Vocus’ key message to the ACCC is that there are problems that need to be fixed and there should be continuing regulatory oversight of CVC pricing.

- **The regulation of internet network peering arrangements.** This issue is discussed in section 4 below. Vocus’ key message to the ACCC is that the ACCC needs to consider and act against the harmful effects on competition and prices that the conduct of the ‘Gang of Four’ is having.

2.2 Issues that have the potential to harm competition but where, in Vocus’ view, there is no current need for the ACCC to take immediate action

Vocus has identified five issues that have the potential to harm competition but where there is no pressing need for immediate regulatory action. Vocus’ key message to the ACCC in respect of these issues is that the ACCC should maintain a watching brief. These issues are:

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1 This term is used loosely, as Telstra is still dominant in most telecommunications markets. It is perhaps more correct to refer to Telstra as being within its own tier, and Vocus, Optus and TPG being in the next tier down.
• **The increasing need to manage internet traffic to cope with increasing traffic volumes.** This issue is discussed in section 5 below. The key point is that traffic management measures that are indifferent to which service provider or content owner data belongs to (for ease of expression referred to as Traffic Management) are unlikely to have harmful effects on competition. However, the prioritisation of data belonging to a particular service provider or content owner (for ease of expression referred to as Prioritisation) has an obvious potential to have harmful effects on competition.

• **The increasing potential to bundle services.** This issue is discussed in section 6 below. The key point is that the proliferation of over the top (OTT) services increases the potential to bundle.

• **The regulation of OTT services that compete with traditional carriage services.** This issue is discussed in section 7 below. The key point is that it is important that competitors have a level playing field and OTT services that compete with more traditional carriage services do not have an unfair advantage.

• **The application of the regulation designed to protect NBN Co from cherry picking.** This issue is discussed in section 8 below. The key points are that the NBN Co anti cherry picking rules are broken and should be repealed. In the event that the anti cherry picking rules remain in place, all competitors that supply superfast services should be subject to the same regulatory playing field regardless of the type of technology they use.

2.3 **Aspects of telecommunications economic regulation that are working well**

Vocus has identified the following aspects of telecommunications economic regulation that are working well or are appropriate from Vocus’ perspective:

• **The ACCC’s approach to the regulation of transmission services in contestable areas.** This issue is discussed in section 9 below. Vocus’ key message to the ACCC is that Vocus agrees that where there is evidence of effective competition, regulation is not required. Vocus also believes that declaration of a dark fibre service is not required.

• **Industry self-regulation relating to the provision of information to consumers.** This issue is discussed in section 10 below. Vocus’ key message is that industry has proved capable in the past of putting its own house in order as regards the provision of information to consumers.

2.4 **Response to specific questions in the Issues Paper**

Vocus sets out in section 11 below its response to some of the specific questions raised in the Issues Paper.

3 **NBN Co CVC pricing**

CVC pricing clearly is, and has been, a hot topic for retail service providers (RSPs). The Issues Paper acknowledges that a number of RSPs and industry stakeholders have raised concerns about CVC pricing, particularly in the context of the growth in data use. Vocus, like most other RSPs, has concerns about CVC pricing both at the level of principle and in terms of practical application.

At the level of principle, the CVC is an artificial construct which includes arbitrary step increases in price. This point has been made to the ACCC on a number of occasions.

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2 Issues Paper para 6.22.
As regards practical application, Vocus notes that a recent submission from the Competitive Carriers Coalition estimated that the CVC charge per SIO to achieve the recommended data rate for Ultra HD or 4K services on the basis of CVC charges permitted by NBN Co's Special Access undertaking (SAU) would be $500 per month.\(^4\)

It is clear from this example that the choice that arises is between:

- an approach to CVC pricing that makes access to OTT services that require high bandwidth unaffordable to most Australians, and thereby stifles innovation and leads to poor outcomes for consumers; or

- a fundamental rethink of the approach to CVC pricing which seeks to keep CVC pricing at realistic levels.

The second option above is obviously the preferable option as regards positive outcomes for consumers.

Vocus believes that the issues with CVC pricing are well understood by NBN Co and the ACCC. Indeed, Vocus notes that in a recent public address, the ACCC Chairman put forward the view that concerns about CVC charges have been well made.\(^5\) The ACCC chairman also, rightly, pointed out that when considering the issue of CVC pricing, the ACCC is required to consider the opportunity for NBN Co to recover its efficient costs and to earn a modest return on investment.\(^6\)

Vocus submits that a rethink of CVC pricing that seeks to keep charges at more realistic levels is not necessarily inconsistent with giving appropriate weight to NBN Co's legitimate interests.

In economic terms, it is rational for NBN Co to seek to put its own interests above the interests of RSPs and consumers and to seek an optimal outcome from its perspective. Given that NBN Co has significant market power, it would not be wise for the ACCC to simply leave it to the industry to resolve the CVC issue without there being any regulatory fall back in the event that NBN Co offers a solution that unreasonably favours its own interests above the interests of RSPs and consumers.

In light of the very legitimate concerns raised about CVC pricing, it is important that the ACCC maintains an ability to provide regulatory relief should NBN Co fail to adequately resolve the issue. Any resolution should be binding on NBN Co or subject to being overridden by a regulatory mechanism – i.e. it is not sufficient for NBN Co to offer a discount or revised approach that it could simply walk away from in circumstances where the ACCC would be powerless to step in. In this regard, Vocus notes that NBN Co has recently sought approval of a variation to its SAU. Vocus notes that a number of submissions in response to the ACCC’s consultation on NBN Co's SAU variation have raised the issue of CVC pricing, and some have called on the ACCC not to accept NBN Co's varied SAU without the CVC pricing issue being fixed.\(^7\) Vocus believes that there is merit in these submissions and Vocus urges the ACCC not to accept NBN Co's varied SAU unless it contains a mechanism that would allow the ACCC to step in should NBN Co fail to maintain reasonable CVC pricing.

If it is simply the case that permitting NBN Co to recover its reasonable costs (including a reasonable return on investment) means that access to OTT services that require high bandwidth become unaffordable for most Australians, then the NBN will have failed to fulfil the objective of delivering fast broadband at affordable prices, and a fundamental policy rethink will be required (the obvious elephant in the room is a write down of NBN Co's costs). However, Vocus acknowledges that policy issues of this nature go beyond the ACCC's powers.

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\(^5\) Keynote address by Rod Sims to CommsDay Melbourne Congress 4 October 2016.

\(^6\) ibid.

4 Regulation of internet network peering arrangements

Achieving any to any connectivity depends on the exchange of traffic between the networks of different internet service providers. This requires interconnection. Vocus agrees with the view in the Issues Paper that if service providers are unable to obtain interconnection on competitive terms, the result is that entry or expansion in the supply of downstream services will be deterred.\(^8\) It is in this context that the settlement-free peering arrangements between Telstra, Optus, TPG and Verizon (commonly referred to as the Gang of Four) referred to in the Issues Paper needs to be considered.

The Issues Paper identifies that concerns relating to peering and transit interconnection arrangements have been raised with the ACCC a number of times. In January 2005 the ACCC considered declaring an interconnection service but decided against doing so largely because the ACCC felt it did not have sufficient information regarding costs or whether the arrangements in place at the time optimally reflected the relative values and costs of providing interconnection.\(^9\) The Issues Paper also acknowledges continuing concerns regarding access to interconnection for service providers outside the Gang of Four. Vocus believes that these concerns are exacerbated by the recent, and likely continuing, trend for exponential growth in data usage.

In Vocus' view, the Gang of Four is a prima facie cartel. In light of this, Vocus respectfully submits that calls for the ACCC to consider whether such arrangements are acceptable should be akin to pushing on an open door. The arrangements between the Gang of Four is undoubtedly beneficial to the Gang of Four but it is extremely detrimental to other competitors and to competition in general. The imbalance between the Gang of Four and other carriers impedes the ability of other carriers to compete with the Gang of Four and results in Australian consumers of internet services paying higher retail charges. Given the increase in data usage, this imbalance can only get bigger.

It is not just Australian service providers outside the Gang of Four that have to deal with high interconnection costs. Cloudflare, which operates a global network that interconnects with many other networks around the world, has publically stated that Cloudflare pays about as much every month to serve all of Europe as it does to serve Australia, despite Europe having a vastly larger population (and corresponding larger volumes of internet traffic) than Australia. This is largely the result of Cloudflare being unable to peer with the Gang of Four.\(^10\)

Given the above concerns, Vocus believes that the ACCC should again consider regulatory intervention to address the obvious competition concerns that arise from the existence of the Gang of Four.

5 The increasing need to manage internet traffic to cope with increasing traffic volumes

Vocus believes that one of the implications of the exponential rise of internet traffic is that it will be necessary for network operators to more actively manage traffic. The management of traffic by network operators is inextricably linked to the issue of net neutrality which has been a hot topic in the USA and Europe but has been a relatively low key issue in Australia thus far.

When considering issues relating to net neutrality, it is necessary at the outset to distinguish between the following:

- traffic management measures that are indifferent to which service provider or content owner data belongs to (for ease of expression referred to as Traffic Management); and
- the prioritisation of data belonging to a particular service provider or content owner (for ease of expression referred to as Prioritisation).

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\(^8\) Issues Paper, para 9.5.
\(^9\) Issues Paper, para 9.10.
\(^10\) See: https://blog.cloudflare.com/the-relative-cost-of-bandwidth-around-the-world/
In Vocus’ opinion, Traffic Management does not have any implications for competition regulation. However, Prioritisation clearly does have potential implications for competition regulation. Therefore, the discussion below considers the implications that Prioritisation has for telecommunications regulation.

The obvious threshold issue when considering regulation of Prioritisation is whether such regulation should be *ex post* or *ex ante*. The ACCC’s ex post telecommunications specific regulatory powers are contained in Part XIB of the CCA. Vocus notes that Part XIB of the CCA is currently under review.\(^\text{11}\) In addition to the review of Part XIB, changes to the ACCC’s general powers under section 46 of the CCA are also on foot.\(^\text{12}\) Therefore, it appears that an added complexity to the consideration of an appropriate regulatory approach to Prioritisation is that the ACCC’s ex post regulatory powers are currently in a state of flux. That said, there is no suggestion that the ACCC should lose its power to take action to prevent a substantial lessening of competition in telecommunications markets. Therefore, the discussion below proceeds on the basis that the ACCC will have an ex post regulatory power to address conduct in telecommunications markets that has the effect, or likely effect, of substantially lessening competition.

The ACCC’s telecommunications specific ex ante regulatory powers are contained in Part XIC of the CCA. Part XIC provides an access regime which is based around the declaration of eligible services. At a high level of abstraction, it appears to Vocus that ex ante regulation of Prioritisation would need to focus on the actions and conduct of network operators in respect of their networks, rather than the provision of specific services. Given Part XIC’s focus on specific services, it appears to Vocus that Part XIC may not be well suited to deal with the ex ante regulation of Prioritisation should such regulation be required. Therefore, it appears that the imposition of ex ante regulation on Prioritisation would likely require changes to primary legislation.

On the basis of the information Vocus has considered relating to net neutrality, it appears to Vocus that Prioritisation is not currently causing any significant competition concerns in Australia. Clearly, if Prioritisation practices were to be engaged in that have the effect, or likely effect, of substantially lessening competition, the ACCC could use its ex post powers to deal with the specific situations that arise. Therefore, on the basis of the current information available to Vocus, it appears to Vocus that there is no pressing need to consider the approach to the regulation of Prioritisation. That said, given:

- the clear potential for Prioritisation to harm competition;
- the ACCC’s ex post powers being in a state of flux; and
- the apparent unsuitability of Part XIC to deal with the ex ante regulation of Prioritisation,

there is an obvious potential that this issue may need to be revisited in future.

### 6 The increasing potential to bundle services

Vocus acknowledges that bundling of services can be used as a legitimate means of competing. Vocus is not aware of any current significant competition concerns that arise from bundling arrangements in telecommunications markets in Australia. That said, there is clearly a potential for exclusivity arrangements relating to access to content and other services to be harmful to competition in telecommunications markets in Australia. This is particularly the case where firms with substantial market power are involved. Regulation of Foxtel’s Digital Set Top Unit Service provides an example of where regulated access was required to ensure that bundling of content did not harm competition. This regulation occurred prior to the era of convergence that is now readily apparent. Given the increased potential for bundling in the converged era, it is important


that the ACCC keeps an eye on, and is ready to respond to, any anti-competitive behaviour involving bundling that may arise.

7 The regulation of OTT services that compete with traditional carriage services

The objective of promoting any to any connectivity is part of the 'trinity' of objectives that the ACCC must have regard to when deciding if something promotes the long term interests of end users for the purposes of Part XIC of the CCA. The principle of any to any connectivity is well understood and unproblematic in the context of traditional carriage services such as voice telephony and internet access services.

There are a number of OTT services which compete with traditional carriage services which do not adhere to the principle of any to any connectivity. As noted in the Issues Paper OTT communications services such as Facebook Messenger, Skype, Apple iMessage, Facetime, Viber, WhatsApp and Snapchat are increasingly displacing traditional voice and text services with free messaging applications using existing network/internet services. In Vocus' view, each of these OTT services is akin to a virtual telecommunications network that does not permit any to any connectivity. It is an interesting scenario to consider from a competition policy perspective (i.e. the physical barriers of building a physical network do not exist in the virtual world so the virtual world is akin to a physical world where there are low barriers to building competing telecommunications networks – i.e. in terms of customer reach, each OTT service provider is effectively in the position of being able to extend its own communications network to any customer, with the only potential barrier being the customer having access to the internet).

Vocus acknowledges that thus far OTT services of the type described above have led to positive outcomes for consumers. However, given that such services are seeking to compete with traditional voice and messaging services, it is important that regulatory policy ensures a level playing field for competitors. Vocus is concerned that regulation may apply unevenly to competitors and thereby provide an unfair advantage to some competitors over others. For example, OTT communications service providers that are based overseas are not required to comply with the same onerous data retention obligations that Australian carriage service providers are required to comply with. There is also the threshold consideration of whether OTT services of the type discussed above come within the scope of the definition of carriage service provider in the Telecommunications Act 1997 (Telco Act). Vocus acknowledges that such issues transcend the ACCC's regulatory powers. However, the existence of a level regulatory playing field for competitors is clearly an issue that is relevant to the ACCC's communications market study.

8 The application of the regulation designed to protect NBN Co from cherry picking

Parts 7 and 8 of the Telco Act have the effect of restricting the provision of 'superfast' carriage services over fixed line networks. The intended effect of Parts 7 and 8 is to ensure that NBN Co has a level playing field in which to compete, and vertically integrated service providers are not able to cherry pick the most lucrative areas to provide superfast services. The intended effect of Parts 7 and 8 is that, with some exceptions, any competition that the fixed line NBN faces will be from competitors that have adopted the same model as NBN Co (i.e. wholesale only, non discriminatory open access).

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13 See section 152AB(2) of the CCA.
14 Issues Paper at para 4.11.
15 By virtue of section 187A3(c) of the Telecommunications Act 1979 which makes the data retention obligations in Part 5-1A of that Act dependent on whether the service provider owns or operates infrastructure in Australia.
16 Defined as a speed of more than 25 Mpbs.
The Vertigan Review Panel made the following observations about Parts 7 and 8 of the Telco Act:

Arguably the rules under Part 7 are not as intrusive as those under Part 8. Carriers can already be required under Part XIC of the CCA to provide access to specified services. Part 8 is significantly more intrusive because it effectively limits a network operator to wholesale supply.

Thus preventing alternative superfast network providers from entering the retail market could seriously compromise the incentives for investment in competitive infrastructure. By discouraging that investment and strengthening a de facto NBN Co monopoly, the rules would then deprive end users of services that might otherwise be provided or, if those services are provided, might cause them to be provided less promptly and efficiently than they could be.

Were that to occur, it would hardly be in the long term interests of end users. Rather, the resulting de facto monopoly arrangements would erode both the disciplines on wholesale prices and incentives for innovation, in the market generally and for NBN Co particularly. These are significant risks that cannot be fully offset by regulation; that fact underscores the presumption that competitors should not be unnecessarily constrained against a firm like NBN Co which enjoys very considerable advantages, including that of ready access to taxpayer funding.

As for claims that the restrictions are required to ensure NBN Co’s ability to fund its service obligations, those claims are both unproven and, in any event, inconsistent with good public policy: if there is a need to subsidise prices in regional, rural and remote areas, this should be done through arrangements that are transparent and accountable, rather than by means of opaque restrictions on competition. As a result, protecting poorly targeted cross subsidies cannot justify retaining the rules that are currently in place. Alternative arrangements which would ensure universal access and affordability more effectively and efficiently are set out in chapter 8.

Moreover, if the purpose of the current arrangements was to prevent entry that might undermine internal cross subsidies, they have singularly failed to do so, while creating substantial uncertainty as to their precise reach and impact.

On the basis of these conclusions, the Vertigan Review Panel recommended that Part 7 of the Telco Act be repealed and Part 8 be substantially revised to allow for service providers to provide undertakings to the ACCC.

Vocus agrees with the findings of the Vertigan Review Panel as regards Parts 7 and 8 of the Telco Act. Vocus believes that Parts 7 and 8 of the Telco Act are wrong in principle for the reasons articulated by the Vertigan Review Panel. Vocus believes that competition should always be encouraged, and should not be stifled in the way that Parts 7 and 8 of the Telco Act stifle competition. Vocus acknowledges that NBN Co may need to cross subsidise its services but other mechanisms such as Universal Service Obligation could be used to support the social objectives of the NBN.

Vocus submits that the emergence of new technologies will create even more significant problems if Parts 7 and 8 of the Telco Act are not revised. In this regard Vocus notes that the Issues Paper includes the following observations:

- There have been significant developments in mobile network technology in recent years, with the rapid deployment and take-up of 4G mobile services. 4G networks are capable of speeds of 100 megabits per second. The performance of 4G networks will likely improve further as newer 4G technologies, such as LTE-Advanced, are adopted.

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19 ibid, at p.84.
20 Issues Paper, at p.46.
International developments suggest that 5G technologies could be used to provide fixed wireless broadband services in the future. 5G technologies are likely to be able to achieve data rates of between one to 10 gigabits per second.

Parts 7 and 8 of the Telco Act only apply to fixed line networks. This means that should Parts 7 and 8 remain in their current form, fixed line competitors of NBN Co will be regulated by Parts 7 and 8 of the Telco Act but fixed wireless and mobile competitors will not. Vocus acknowledges that fixing the problems with Parts 7 and 8 of the Telco Act go beyond the ACCC’s powers. However, should Parts 7 and 8 of the Telco Act remain in place in their current form so that fixed line competitors of NBN Co continue to be regulated but fixed wireless and mobile competitors are not, the ACCC should give consideration to extending the scope of the Superfast Broadband Access Service so that it captures fixed wireless and mobile services.

9 The regulation of transmission services in contestable areas

As part of the inquiry into the re-declaration of the Domestic Transmission Capacity Service (DTCS) in 2014, the ACCC undertook a detailed analysis into the state of competition in markets for transmission services. The ACCC found that contestability is increasingly evident in transmission markets.21 The ACCC found that 200 metropolitan exchange service areas and 27 regional routes are competitive. The ACCC decided that the DTCS declaration should not apply to those competitive routes.

Vocus agrees with the principle that where effective competition has been established, regulation is not required.

Vocus notes that the Issues Paper discusses the availability of dark fibre. As regards dark fibre, the ACCC has previously found that:22

while dark fibre is capable of being used as an input to provide transmission services, it is nevertheless an unconditioned product which requires an access seeker’s connecting equipment and management system in order to replicate the DTCS. As such, dark fibre is not a DTCS service nor is it a direct substitute.

In other words an access seeker that obtains dark fibre would need to do a lot more to provide services in downstream markets than an access seeker that obtains the DTCS. Vocus agrees that this should lead to the conclusion that dark fibre is not a substitute for the DTCS. However, the reverse does not necessarily follow – i.e. if dark fibre is not available, the DTCS could provide a more user friendly wholesale input than dark fibre. In light of this, Vocus believes that as a matter of principle there can be no basis for mandating regulated access to dark fibre in areas where DTCS is available because an effective substitute to dark fibre is available (i.e. there is no need to regulate the same bottleneck twice).

10 Industry self-regulation relating to the provision of information to consumers

The Issues Paper discusses issues specifically about broadband speed claims, and refers to an ACCC discussion paper specifically about issues related to broadband speed claims (the Broadband Speed Claims Discussion Paper). As regards the specific issues relating to broadband speed claims discussed in the Broadband Speed Claims Discussion Paper, Vocus agrees with the view of the Australian Mobile Telecommunications Association and the Communications Alliance that these issues are best addressed by industry, and that any ACCC guidance should be updated and incorporated into an industry guideline.23

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22 ibid, at p.13.
Vocus notes that industry was responsible for developing the Telecommunications Consumer Protections Code (TCP Code). The TCP Code includes requirements about providing customers with information about services. After the TCP Code came into force, there was a noticeable fall in complaints to the Telecommunications Industry Ombudsman. The Australian Communications and Media Authority concluded that the existence of the TCP Code was one of the causes of the fall in complaints.24 Therefore, the industry’s ability to keep its house in order as regards providing information to consumers has been proven.

11 Response to selected Issue Paper questions

This section sets out Vocus’ response to selected specific questions raised in the Issues Paper.

4. What information is or would be beneficial for consumers to help them make informed decisions about which communication services and products would best suit their needs?

In line with Vocus’ views in section 11 above, Vocus believes that this issue is best considered by the appropriate industry bodies.

11. What does the emergence of OTT services mean for the current economic regulatory framework for the communications sector?

It is important that competitors have a level playing field and OTT services that compete with more traditional carriage services do not have an unfair advantage. This issue is considered in section 7 above.

12. Does the bundling of content with broadband access and other communications services currently create competition concerns? Is it likely to create competition concerns in the next five years? If so, how?

Vocus’ response is set out in section 6 above.

17. What traffic management procedures have the biggest impact on end-users and why?

From the perspective of competition regulation, it is important to distinguish between the following:

- traffic management measures that are indifferent to which service provider or content owner data belongs to (for ease of expression referred to as Traffic Management); and
- the prioritisation of data belonging to a particular service provider or content owner (for ease of expression referred to as Prioritisation).

In Vocus’ opinion, Traffic Management does not have any implications for competition regulation. However, Prioritisation clearly does have potential implications for competition regulation. Issues relating to the regulation of Prioritisation are discussed in section 5 above.

29. What refinements to NBN pricing could improve RSPs ability to compete on the NBN and to develop products to meet business and consumer needs? Please provide details and ensure your response takes account of the requirements of the SAU, the economies of scale associated with the network and the legitimate commercial interests of NBN Co to recover its costs.

Please see section 3 above.

62. Are there any current regulatory arrangements that may need to be adjusted to deal with increased fixed to mobile substitution? In particular, will the ACCC’s regulation of fixed-line services need to change?

As discussed in section 8 above, any regulation that is aimed to protect NBN Co should apply to all competitors regardless of technology used. Therefore, if Parts 7 and 8 of the Telco Act remain in place, it would be appropriate for them to capture mobile services that compete with the NBN.

67. Are current interconnection arrangements between Telstra, Optus, TPG and Verizon, and smaller service providers inhibiting more efficient practices, technologies, etc.? If so, how are they having an impact?

Please see section 4 above.

76. Are there impediments to acquiring cost effective transmission? Please answer by reference to the transmission types noted above. What impacts does this have on competition in respective downstream markets?

Vocus’ views on the regulation of transmission services are set out in section 9 above.

79. Is access to dark fibre becoming more important in light of rapid growth in demand for data? If so, why? Do access seekers encounter issues in accessing dark fibre? How is the availability and pricing of dark fibre likely to change in response to broader market developments?

Vocus considers that current markets for dark fibre are competitive and working well, and, for the reasons set out in section 9 above, Vocus does not believe it would be appropriate for the ACCC to consider declaring a dark fibre service.

Vocus Communications 8 November 2016