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16 November 2011

Ms Julia Morris  
Committee Secretary  
House of Representatives Standing Committee on  
Infrastructure and Communications  
PO Box 6021  
Parliament House  
Canberra ACT 2600

Dear Ms Morris

**INQUIRY INTO THE TELECOMMUNICATIONS AMENDMENT  
(ENHANCED COMMUNITY CONSULTATION) BILL 2011**

Please find attached AMTA's submission to the abovementioned Inquiry.

AMTA would be pleased to provide further comments and details to the Committee.

Yours sincerely

Chris Althaus  
**Chief Executive Officer**



**Australian Mobile  
Telecommunications  
Association**

House Standing Committee on Infrastructure and Communications

**Inquiry into the  
Telecommunications Amendment (Enhanced  
Community Consultation) Bill 2011**

November 2011

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## **EXECUTIVE SUMMARY**

AMTA strongly believes that the regulatory changes proposed by the *Telecommunications Amendment (Enhanced Community Consultation) Bill 2011 (the Bill)* would have widespread impacts including:

- diminishing the consumer welfare provided via mobile telecommunications;
- reducing the contribution of mobile telecommunications to Australia's economic productivity and social connectivity;
- inhibiting investment and/or causing under-investment in latest generation mobile telecommunications infrastructure and technologies;
- reducing government spectrum revenues from the mobile industry and;
- dramatically increasing the cost burden on local councils.

All at a time when consumers, businesses and governments alike are driving an explosive growth in demand for advanced mobile services including mobile broadband.

### **Growth in demand for mobile services**

Evidence of the growth in demand for mobile services is substantial:

- As of June 2010 there were 25.99 million mobile services in operation in Australia.<sup>1</sup>
- Mobile internet subscribers have now hit 50% penetration of the Australian population.<sup>2</sup>
- It is predicted that by 2020 Australia will have almost 20 million mobile broadband subscriptions on handsets together with another 6.3 million data cards. The corresponding mobile data traffic volumes are forecast to increase at a compound annual growth rate of 95 per cent to 2014.<sup>3</sup>
- Australia now leads the world in the adoption of smartphone technology with 37% of Australians owning a smartphone and predictions that this will rise to 50% by 2012<sup>4</sup> and 90% by 2015.<sup>5</sup>
- Traffic from advanced smartphones is expected to increase 12-fold over the next five years<sup>6</sup>

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<sup>1</sup> ACMA Communications Report 2010

<sup>2</sup> RBS, 10 March 2011, 'RBS Telescope: Mobile internet hits 50% penetration'; [ATMA Report, Network Strategies 2010].

<sup>3</sup> 2011 Telsyte's Australian Smartphone Market Study 2011-2015

<sup>4</sup> Australia's White Hot Smartphone Revolution, Sydney Morning Herald 8 Sept 2011

<sup>5</sup> 2011 Telsyte's Australian Smartphone Market Study 2011-2015

## **Key Mobile Infrastructure**

As the usage and service expectations of consumers rises there is increasing pressure on the mobile network operators to ensure they have the capacity to meet the rapidly growing demand for latest generation mobile data applications and services particularly mobile broadband.

To meet the growth in demand industry must continue to invest in fundamental mobile telecommunications infrastructure - networks (base stations and towers) and radiofrequency spectrum.

Mobile networks are like our roads – when traffic volumes increase substantially – upgrades are required.

Mobile network operators are currently carrying out and planning substantial programs to upgrade and expand existing physical network infrastructure in order to meet unprecedented growth in demand for mobile data services.

Mobile network operators are also participating in a process of 15-year spectrum licence renewal with Government as well as preparing for the November 2012 auction of digital dividend spectrum in the 700MHz and 2.5GHz bands.

The opportunity to secure new spectrum in the digital dividend auctions is critical to the roll-out of next generation mobile networks to meet the surging demand for advanced mobile telecommunications services, including mobile broadband.

Mobile network operators' infrastructure investment plans depend on certainty of government policy and regulation related to deployment of network infrastructure and the timing and allocation of new spectrum resources.

AMTA strongly believes that continued investment in infrastructure and innovation must be encouraged and fostered by the Government's policy and regulatory framework so that the benefits of mobile broadband and a growing digital economy can be realised by all Australians.

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<sup>6</sup> [Ericsson "Traffic and Market Data Report"](#) Nov 7, 2011

## **Economic productivity impacts**

***“The advancement of mobile devices has led to improved workplace productivity.”<sup>7</sup>***

There is evidence of significant economic productivity benefits arising from investment in mobile network infrastructure and use of mobile telecommunication services. The proposed Bill would impact on the ability of mobile network operators to contribute to projected economic productivity benefits.

A 2010 Access Economics report commissioned by AMTA found that the industry contributed \$17.4 billion to the Australian economy in 2008-09.<sup>8</sup> This includes \$6.7 billion in direct contribution and \$10.7 billion in indirect contribution. A recent industry report found that convergence and the availability of high-speed broadband networks (fixed and mobile) is driving investment in the media and communications sector with investment levels predicted to reach \$6.4 billion by 2014.<sup>9</sup>

The growth of mobile broadband is widely recognised as a central and increasingly influential component of our evolving digital economy with significant capability to contribute to economic productivity and social connectivity.

The Australian Communications and Media Authority (ACMA) notes:

***There is widespread recognition that mobile broadband services are an economic enabler within society and the provision of these services, technologies and applications in the wider community is in the public interest.<sup>10</sup>***

This is supported by a study conducted by Ericsson and Arthur D. Little that found that for every 10 percentage point increase in broadband (fixed and mobile) penetration, GDP increases 1 percent. The study also confirmed the correlation between faster broadband speeds and increases to GDP.<sup>11</sup>

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<sup>7</sup> Deloitte Access Economics “Economic Review of private members bills” – soon to be released

<sup>8</sup> Access Economics Report, *Economic Contribution of Mobile Telecommunications in Australia*, June 2010.

<sup>9</sup> “Comms and Media Sector spend to grow to A\$6.4 billion by 2014:IDC” Communications Day 18 Oct 2011

<sup>10</sup> 2011 ACMA “***Towards 2020—Future spectrum requirements for mobile broadband***”

<sup>11</sup> Ericsson [New study quantifies the impact of broadband speed on GDP](#) 27 Sept 2011

## **The current regulatory framework**

There is not a vacuum in regulation of mobile network infrastructure deployment. In fact, there is core legislation and regulation at federal, state and local levels of government that directly regulates the deployment of mobile network infrastructure. There is also an effective Industry Code which has recently been revised under processes managed by Communications Alliance.

While the existing regulatory regime is complex it is working effectively to strike a balance between the mobile network operators need for regulatory certainty in order to plan investment and the interests of local communities across Australia.

## **Consequences of the Bill**

In AMTA's view the potential impacts of the Wilkie Private Members Bill can be summarised as compromising the efficient deployment of mobile infrastructure thereby reducing the economic and social role and contribution of advanced mobile telecommunications, particularly mobile broadband.

A soon-to-be-released Deloitte Access Economics study commissioned by AMTA considered two separate Private Members Bills by Mr Andrew Wilkie MP and Senator Bob Brown and found that:

***the proposed changes will lead to the imposition of costs, delays and loss of consumer welfare.***<sup>12</sup>

The following extract highlights the key conclusions from the Deloitte Access Economics Report.

The full Executive Summary of Deloitte Access Economics Report is included as appendix A.

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<sup>12</sup> Deloitte Access Economics "Economic Review of private members bills" – soon to be released

*Deloitte Access Economics have undertaken estimates of the costs involved with this process, based upon estimates of several parameters, including the administrative costs of notifications, the length and costs involved in delays from objections, and the expected rate of objections under the proposed legislation.*

*The overall annual costs of the bill are \$2.20 billion, comprised of:*

- *\$2.06 billion per annum of additional administration costs, largely relating to the costs of many more notifications, and addressing an increased number of objections.*
- *\$132 million per annum cost associated with a sub optimal network outcome, when required facility construction, upgrade or maintenance does not occur as proposed. It is estimated here as an additional capital cost required to achieve the same network performance, but in reality it would also be realised as a lower network quality.*
- *\$14 million per annum cost reflecting the delay to required facility construction, upgrade or maintenance, whereby the capital is used less productively for the period of any delay than it would be used productively providing telecommunication services.*

*The Wilkie and Brown Bills have both been designed to ease community concerns about mobile telephone infrastructure and to facilitate improved consultation with local community before construction or work begins.*

*However the legislative effect of each of the two Bills is to create a system that makes the cost of gaining approval to build new towers or upgrade existing towers prohibitively expensive, and runs the risk of substantial underinvestment in mobile telecommunications services in Australia going forward.*

*Coming at a time when the demand for mobile data is widely forecast to grow rapidly, this presents untimely barriers to an already challenging infrastructure development path for the mobile telecommunications industry, which may lead to large losses in consumer welfare.*

**Deloitte Access Economics**

**November 2011**



## **Introduction**

The Australian Mobile Telecommunications Association (**AMTA**) is the peak industry body representing Australia's mobile telecommunications industry. Its mission is to promote an environmentally, socially and economically responsible, successful and sustainable mobile telecommunications industry in Australia, with members including the mobile Carriage Service Providers (CSPs), handset manufacturers, network equipment suppliers, retail outlets and other suppliers to the industry. For more details about AMTA see <http://www.amta.org.au/>

The Mobile Carriers Forum (**MCF**) is a division of the Australian Mobile Telecommunications Association (AMTA) specifically representing the three mobile network operators deploying mobile networks in Australia, namely Telstra, Optus and Vodafone Hutchison Australia (VHA). The MCF is a specialised AMTA Forum that deals specifically with issues related to the deployment and operation of mobile phone networks. For more details about the MCF see <http://www.mcf.amta.org.au/>

AMTA and the MCF welcome the opportunity to make a submission to the House Standing Committee on Infrastructure and Communications Inquiry into the Telecommunications Amendment (Enhanced Community Consultation) Bill 2011 (**the Bill**).

AMTA and the MCF are aware that Communications Alliance is also providing a submission to the Committee. Communications Alliance is responsible for the development, administration and management of the Communications Alliance Mobile Phone Base Station Deployment Industry Code which will be published in December with the expectation that it will be registered by the ACMA. This Code is a revision of the current Communications Alliance Deployment of Mobile Phone Network Infrastructure Industry Code. AMTA and the MCF fully support the Communications Alliance submission.

## Mobile Trends in Australia

In Australia mobile telecommunications are increasingly at the centre of people's lives, providing mobility, connectivity and productivity benefits. Reflecting its growing impact and influence, mobile telecommunications is gravitating towards the centre of economic and social policy throughout the world including in Australia.



The ACMA has reported that there were 26 million mobile subscriptions services in Australia at the end of June 2010. This translates to a market penetration of around 115% based on a population of over 22 million people. Mobile broadband subscriptions were reported to have increased by 71%, reaching 3.46 million at the end of June 2010.<sup>13</sup>

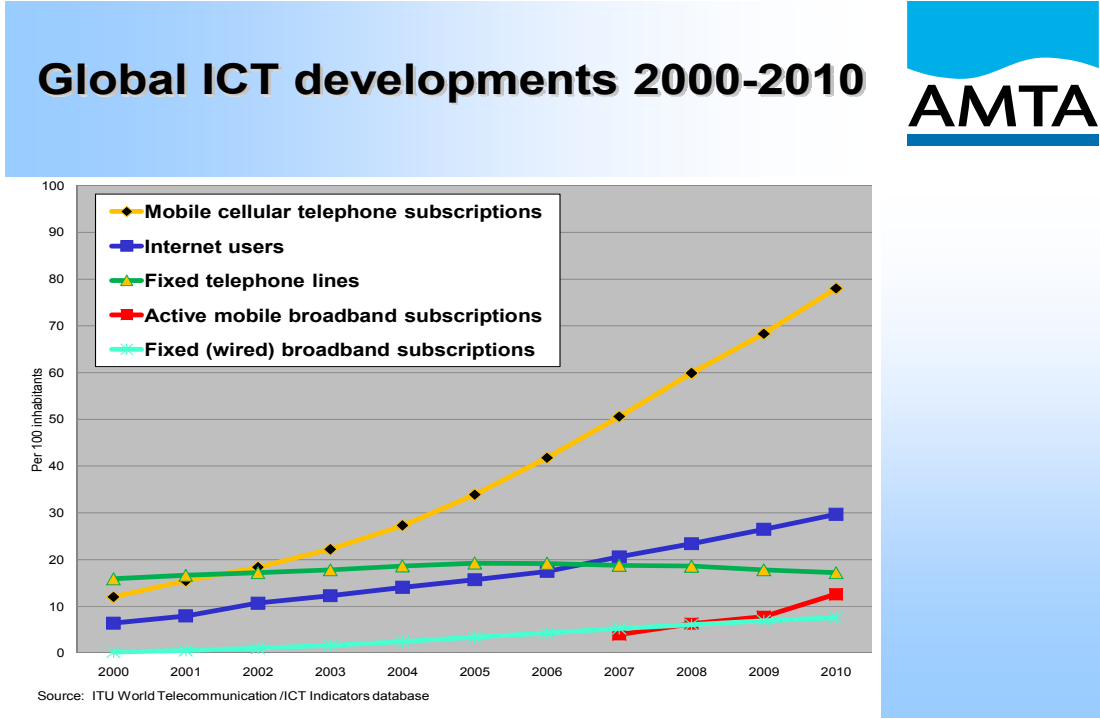
<sup>13</sup> [ACMA Communications Report 2009-2010](#)

## Global Growth in Demand for Mobile Services

The International Telecommunications Union (ITU) has recognised that demand for mobile broadband services is growing exponentially and this is driving exponential growth in mobile data traffic on networks.

***"Even during an economic crisis, we have seen no drop in the demand for communications services,"*** ITU Secretary-General Hamadoun Toure said in a statement at the 2011 Mobile World Congress in Barcelona, Spain.

Globally, the ITU predicts that the ranks of mobile phone subscribers will swell to five billion people in 2011. The ITU also suggests the number of mobile broadband subscriptions would exceed one billion this year and is forecast to reach 5 billion by 2016.



Ericsson recently compiled data from measurements made across several years on more than 1000 mobile networks around the world. Ericsson has predicted:

- Global mobile data traffic will increase by 10 times over the next five years
- Global mobile broadband subscriptions to hit 900 million by the end of 2011 and are expected to reach 5 billion by the end of 2016
- Total smartphone traffic will triple in 2011

- Mobile traffic will increase by 60% every year until 2016 and this is mainly driven by increasing demand for video content<sup>14</sup>
- Traffic from advanced smartphones is expected to increase 12-fold over the next five years

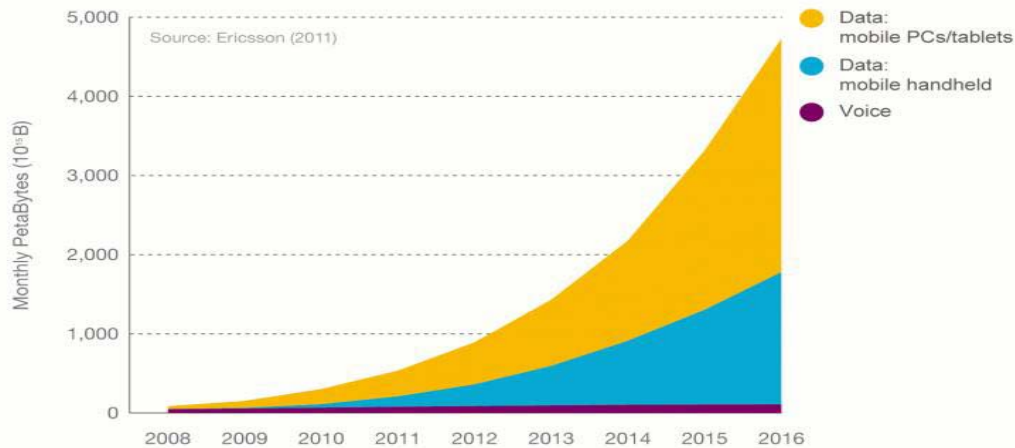
## Exponential Growth in Mobile Data Traffic

Consumer demand for smartphones, video content, apps and mobile broadband services all translate into network traffic growth as it is estimated that use of a typical smartphone will generate around 24 times more mobile data traffic than a traditional mobile phone.

Today, the average mobile broadband connection generates 1.3 gigabytes of traffic per month - which is equivalent to about 650 MP3 music files. By 2014, the average mobile broadband connection is projected to generate 7 gigabytes of traffic per month, which is equivalent to about 3,500 MP3 music files.

Global and local mobile data traffic are forecast to follow similar trends as suggested by Ericsson (2011) and Network Strategies (2010).

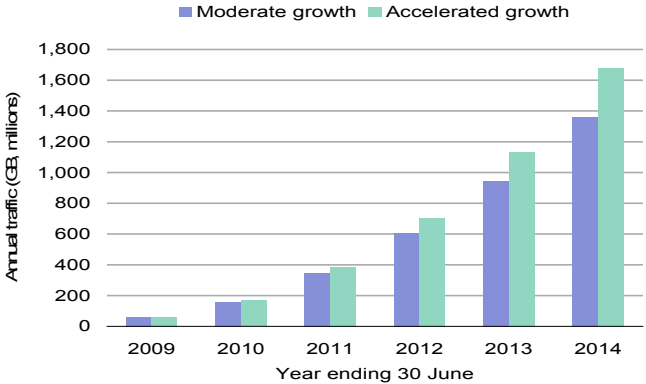
### Global Mobile Traffic Projections



The global projection above reflects an increase in mobile data traffic of over 600% between 2011 and 2015.

<sup>14</sup> [Ericsson "Traffic and Market Data Report"](#) Nov 7, 2011

# Mobile broadband annual traffic projections Australia 2009 to 2014



Source: Network Strategies

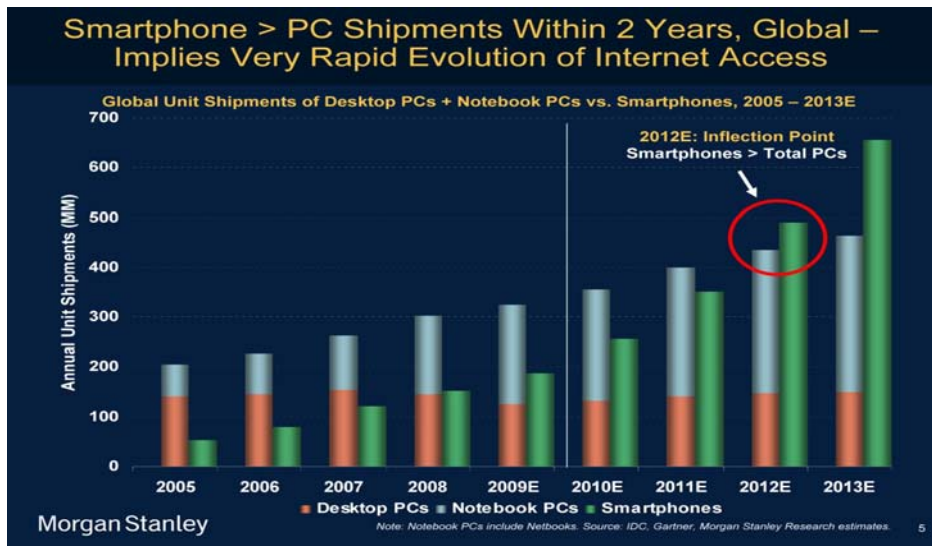
Australian projections reflect the global trend for significant and rapid growth in mobile broadband traffic.

## Smartphones

The uptake of smartphones and the related explosion of applications and services is a significant part of the mobile broadband story. Australia now leads the world in the adoption of smartphone technology with one report suggesting 37% of Australians now own a smartphone and predictions that this will rise to 50% by 2012.<sup>15</sup>

The Telsyte Australian Smartphone Market Study 2011-2015<sup>16</sup> suggests the total number of Australian smartphone users is set to hit 18.5 million or 90% by 2015. According to Telsyte's forecast smartphone usage is to set to explode by nearly 10 million between 2011 and 2015.

In a further indication of the move towards smartphones Morgan Stanley estimates within 2 years from 2010 global shipments of smartphones will exceed that of PCs and notebooks – see below.



For mobile network operators the current and forecast growth in consumer demand for smartphones, mobile broadband and mobile data has created significant and urgent focus on the infrastructure, investment and innovation needed to provide the platform for a rich mobile experience for all users or mobile telecommunications.

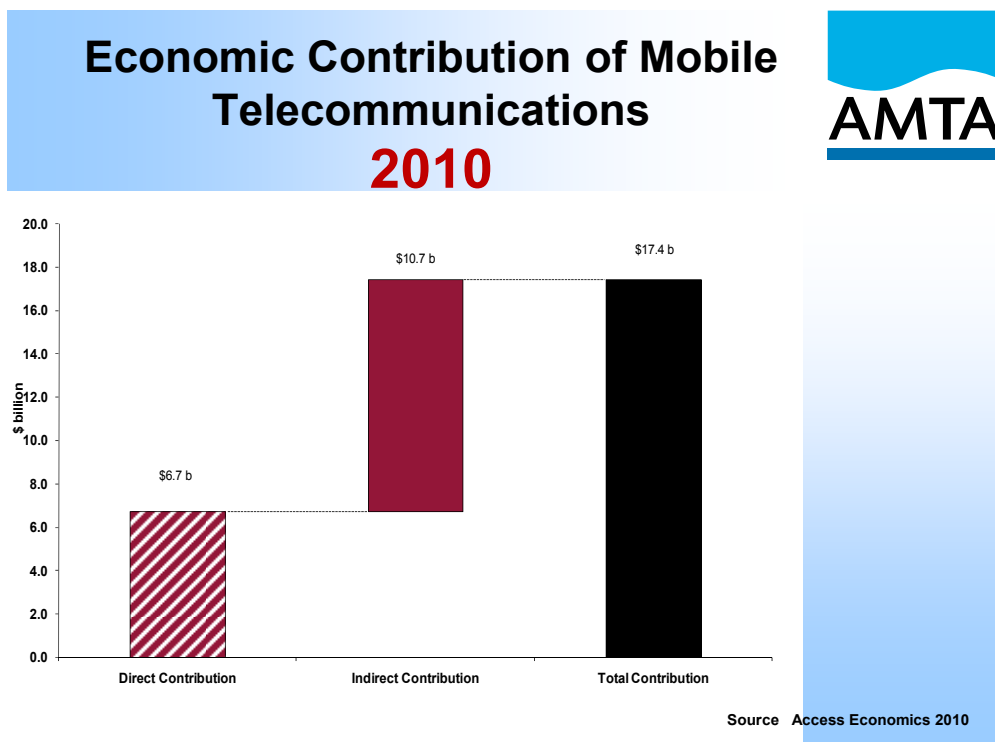
<sup>15</sup> Australia's White Hot Smartphone Revolution, Sydney Morning Herald 8 Sept 2011

<sup>16</sup> 2011 Telsyte "Australian Smartphone Market Study 2011-2015"

## Economic Implications

A 2010 Access Economics report commissioned by AMTA found that the industry contributed \$17.4 billion to the Australian economy in 2008-09.<sup>17</sup> This includes \$6.7 billion in direct contribution and \$10.7 billion in indirect contribution.

An earlier (2008) version of the Access Economics study undertaken prior to the widespread roll-out of mobile broadband services recorded a similar direct contribution, however, the indirect contribution of \$7.73 billion was \$3 billion less than the 2010 estimate. The reason for this \$3 billion increase in the indirect contribution is largely attributed to the introduction of advanced mobile data services including mobile broadband.



A 2011 industry report found that convergence and the availability of high-speed broadband networks (fixed and mobile) is driving investment in the media and communications sector with investment levels predicted to reach \$6.4 billion by 2014.<sup>18</sup>

<sup>17</sup> Access Economics Report, *Economic Contribution of Mobile Telecommunications in Australia*, June 2010.

<sup>18</sup> "Comms and Media Sector spend to grow to A\$6.4 billion by 2014:IDC" Communications Day 18 Oct 2011

The growth of mobile broadband is widely recognised as a central and increasingly influential component of our evolving digital economy with significant capability to contribute to economic productivity and social connectivity.

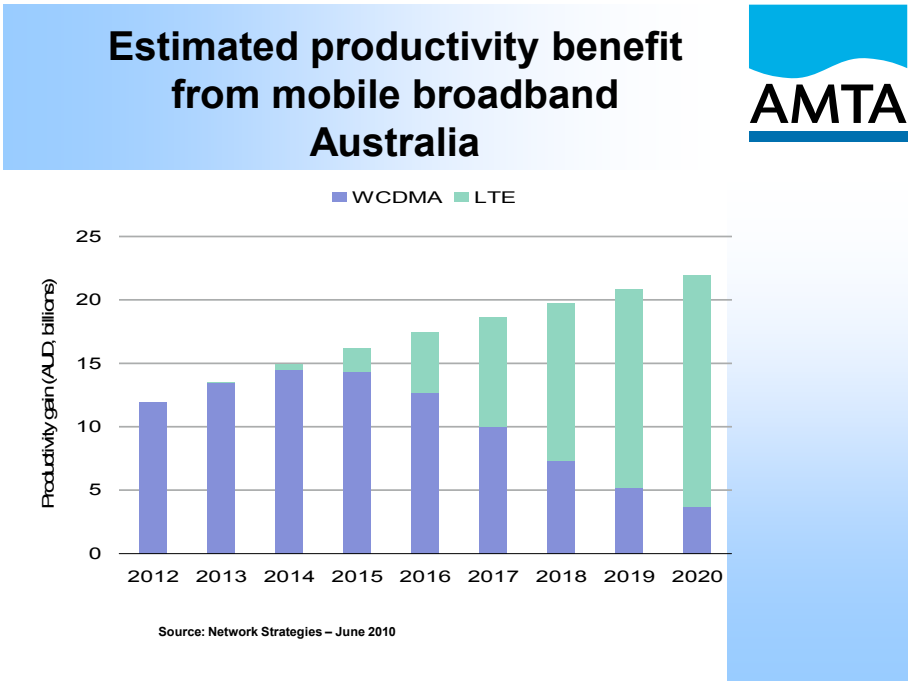
The Australian Communications and Media Authority (ACMA) notes:

***There is widespread recognition that mobile broadband services are an economic enabler within society and the provision of these services, technologies and applications in the wider community is in the public interest.<sup>19</sup>***

This is supported by a study conducted by Ericsson and Arthur D. Little that found that for every 10 percentage point increase in broadband (fixed and mobile) penetration, GDP increases 1 percent. The study also confirmed the correlation between faster broadband speeds and increases to GDP.<sup>20</sup>

**Productivity Benefits**

A Network Strategies study in 2010<sup>21</sup> examined potential productivity benefits from mobile broadband in Australia and estimated that the cumulative total productivity benefits would be in the order of \$AUD150 billion for the period 2010 to 2020 – see below.



<sup>19</sup> 2011 ACMA “Towards 2020—Future spectrum requirements for mobile broadband”

<sup>20</sup> Ericsson [New study quantifies the impact of broadband speed on GDP](#) 27 Sept 2011

<sup>21</sup> 2010 Network Strategies *The Future Deployment of Mobile Broadband Services in Australia*



Research conducted on behalf of the UK telecommunications firm O2 found that mobiles overall increased UK labour productivity by almost 1%. The gains were largest among “mobile workers” the group of largely blue-collar workers with no fixed work location, including tradespeople. Modelling undertaken by Telstra found that in the long term, annual real household consumption will be 1.4% greater than it would be in a scenario without mobile broadband services.<sup>22</sup>

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<sup>22</sup> Deloitte Access Economics “Economic Review of private members bills” – soon to be released

## **Infrastructure – Response to Growth**

The high level of consumer demand for mobile services is driving significant industry investment in infrastructure as well as product and service innovation.

Key infrastructure investments include radiofrequency spectrum and the physical infrastructure of mobile networks (base stations and towers).

### **Radiofrequency Spectrum**

Radiofrequency spectrum – the invisible radio waves that carry mobile telecommunication signals is the most basic mobile telecommunications infrastructure on which mobile networks are based.

Australia, along with the rest of the world, is facing a significant challenge to provide additional spectrum resources in response to demand for mobile broadband, which is a key driver of current and future allocations of spectrum resources.

The partnership between spectrum and mobile networks defines the capacity and service performance limits available to users.

As is the case around the world, there is a significant risk that Australian networks will face congestion and degradation of service levels that will impact on all users of mobile networks if additional spectrum resources are not made available in a timely fashion.

Reflecting the global nature of this challenge the Chairman of the US Federal Communications Commission (FCC) made the following comments in March 2011:

***“Multiple expert sources expect that by 2014, demand for mobile broadband and the spectrum to fuel it, will be 35 times the levels it was in 2009. Cisco has projected a nearly 60X increase between 2009 and 2015. This compares to spectrum coming on line for mobile broadband that represents less than a 3X increase in capacity. The looming spectrum shortage is real...”***

***“Every day we are not freeing up spectrum for mobile broadband is another day we are not fulfilling our potential”<sup>23</sup>***

In Australia the auction of new spectrum resources in the 700 MHz and 2.5 GHz spectrum bands is planned for late 2012 and represents a key opportunity for Australian mobile network

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<sup>23</sup> Julius Genachowski, US Federal Communications Commission Chairman, “The Clock is Ticking” remarks on broadband Wash DC March 16, 2011

operators to compete for new spectrum in direct response to consumer demand for mobile broadband services.

The Deloitte Access Economics analysis commissioned by AMTA suggests that the proposed Bill would substantially increase costs associated with establishing infrastructure required to utilise this spectrum and therefore:

***“...reduce the willingness-to-pay of carriers for radiofrequency spectrum”<sup>24</sup>***

Mobile broadband services, including M2M (machine- to-machine) communications, will continue to drive future global demand for spectrum. Cisco predicts that by 2015 there will be twice as many network-connected devices as people globally with over 15 billion active devices including mobiles, tablets, connected appliances and smart machines.<sup>25</sup>

A recent analysis by Ericsson suggests that 50 billion connected devices is a possibility by 2020.<sup>26</sup>

## **Network Investments**

The key infrastructure partner to radiofrequency spectrum is the mobile network.

In fact the limitations of spectrum availability mean that mobile network operators must be able to make their networks more spectrally efficient while also expanding capacity to meet the demands created by consumers and businesses who are seeking the benefits of next generation advanced mobile technologies such as mobile broadband. In practice, this means the mobile network operators must be able to increase the number of cells in their networks and make many cells smaller.

Mobile telecommunication networks are radio cellular networks. That is, a base station provides radio coverage to a geographic area known as a cell. Cells are aligned next to each other in a similar pattern to a honeycomb. The location of the base station within the cell is determined by a number of factors, including topography and other physical constraints such as trees and buildings, the cell capacity or expected traffic for the cell and the radio frequency at which the base station will operate.

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<sup>24</sup> Deloitte Access Economics “Economic Review of private members bills” – soon to be released

<sup>25</sup> GSMA Mobile Business Briefing, 3 June 2011

<sup>26</sup> [Ericsson “Traffic and Market Data Report”](#)

Each base station has a finite capacity regarding the traffic it can carry and in areas of high mobile use, such as central business districts and high density urban areas, more base stations are required to handle higher levels of traffic. Sometimes quite small cells, known as microcells, are used to cover small geographic areas especially where there is a high traffic demand.

Strong demand for mobile broadband means increasing data traffic, which in turn means that mobile network operators are working to increase the number of cells and microcells.

Increasing traffic volumes mean that mobile network operators must be able to roll out new and upgraded sites and facilities to keep pace with consumer demand as well as the latest generation innovations in technology, such as the transition from 3G to 4G network infrastructure.

Should mobile network operators be prevented from deploying the necessary infrastructure, the quality of service expectations of customers may not be met which would cause considerable angst to customers, industry and government alike.

For example the Telecommunications Ombudsman (TIO) has recently reported a large increase in complaints in relation to network coverage and dropouts.<sup>27</sup>

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<sup>27</sup> Telecommunications Ombudsman (TIO) 2011 Annual Report

## **Network Deployment Regulation**

Australian mobile networks now include facilities at more than 18,000 sites in Australia with approximately 3000 new facilities in the feasibility, planning or acquisition stage at any one time.

The deployment of infrastructure is covered by legislation and regulation from all three levels of government including:

- requirements under Schedule 3 of the Telecommunications Act,
- the Telecommunications (Low-impact Facilities) Determination (as amended),
- the Telecommunications Code of Practice,
- the Communications Alliance Industry Code for Deployment of Mobile Phone Network Infrastructure (Federal),
- State Planning and Environmental Policies, Planning Schemes and Instruments (State),
- local planning policies and development approval and consent processes (Local).

All three levels of government also regulate consultation and notification processes in some form.

AMTA believes that the existing regulatory regime is complex but is working effectively to strike a balance between the mobile network operators' need for regulatory certainty in order to plan infrastructure investments to meet demand and the interests of, and consultation with, communities across Australia.

The certainty provided by the current framework includes some exemptions from State and Territory planning and environmental laws. These exemptions are contained in the *Telecommunications (Low-impact Facilities) Determination 1997 (amended 1999)*, and *Schedule 3 of the Telecommunications Act 1997*.

Importantly, community notification and consultation associated with facilities that are deemed "Low Impact" is regulated by the Communications Alliance Industry Code for Deployment of Mobile Phone Network Infrastructure (**the Code**) in accordance with the Telecommunications

(Low-impact Facilities) Determination).<sup>28</sup> This mandatory code is registered with the ACMA and has been in place since 2002 with formal reviews in 2004 and 2011.

### **Effectiveness of the Code for Deployment of Mobile Phone Network Infrastructure.**

In recent years approximately 60-70% of new or upgraded facilities were “Low Impact” with the remaining 30-40% requiring Council Development Approval. The policy rationale for treating Low Impact Facilities differently was to achieve a balance between authorising facilities that are essential to maintaining telecommunications networks, and minimising significant planning or environmental issues of concern to the local community. It is only through the consistent application of the Code consultation processes that this balance has been achieved and retained.

The Code provides essential mandated processes for the mobile network operators to follow so that community and other stakeholders have the opportunity to be fully informed about Low Impact mobile network infrastructure. The ACMA has the powers to intervene if industry self-regulation/co-regulation is not working effectively in specific instances. This is primarily provided for in Section 7 of the Code (complaints handling).

The Code sets a substantial “benchmark” in the way mobile network operators deploy networks. Mobile network operators’ deployment processes have been modified over time to ensure that the precautionary behaviours specified in the Code are adopted in day-to-day operations.

The Code defines requirements for the provision of notification, conduct of consultation, engagement with stakeholders, and provision of information to the public and local councils.

### **The Code consultation process**

When compared to local council Development Application (DA) consultation, the level of consultation under the Code is substantial. In many cases mobile network operators extend the timeframes for consultation well beyond the minimum period mandated by the Code.

The costs to follow the Code processes are a significant element of the overall cost of deploying the infrastructure. However, the mobile network operators remain committed to the successful implementation of the Code.

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<sup>28</sup> Please refer to the submission to the Committee from Communications Alliance regarding the Code and the revised draft Mobile Phone Base Station Deployment Industry Code.

Statistics collected by the MCF show that on average 89 stakeholders were notified for a new site as part of the consultation process set out in section 5.5 of the Code. This level of consultation compares very favourably with an average of around 18 stakeholders for a Council DA process.

Under the Code mobile network operators must also use their reasonable endeavours to identify community sensitive locations in developing the consultation plan (5.5.5(d)) and to identify relevant community stakeholders in developing consultation plans (clause 5.5.5(e)).

In fact, in using their best endeavours to comply with Code provisions, the mobile network operators have notified an estimated five times more stakeholders than would be notified on average if the notification was determined by Council for a facility that required Development Approval (i.e. was not “Low Impact”).

The level of carrier activity associated with Code consultation processes and provision of information is significant. The total number of low impact activities by all mobile network operators that were subject to Code processes since the Code came into full force in 2002 (to 2010/11) is in excess of 17,089.

If the Low Impact Determination had not allowed the exemptions provided then more than 95% of the 17,089 new sites or upgrades would have required development approval from Councils (the balance is accounted for by some exemptions at State level). In 2010/11, 4,432 “Low Impact” telecommunications activities of the mobile network operators were subject to the notification or consultation requirements of the Code.

Over the past five years the MCF has observed a continuing decline in “Complaints” to the ACMA regarding the Industry’s consultation practices when establishing telecommunications facilities. “Complaints” is the term used in ACMA Annual Reports to describe formal complaints under section 7 of the Code. The statistics in Appendix B reveal that in 2010/11 the ACMA received only 7 complaints relating to the compliance of mobile network operators with mandatory obligations under the Code. By comparison in 2002/2003, when the 2002 Code was first utilised, the ACMA received 137 complaints.

Since the introduction of the Code, mobile network operators have been:

- more transparent and accountable for their decision making;
- more consistent in the information they provide;

- more responsive to community feedback.

Most Code complaints received by mobile network operators were either addressed or rectified by the carrier directly with the complainant, which demonstrates that the Code complaint handling process is effective.

### **Status of the Code review process**

The Code is currently being reviewed, as it is every five years, to ensure that it remains relevant and capable of guiding meaningful consultation with communities, stakeholders and local Councils. The revised draft Code is called the Communications Alliance Mobile Phone Base Station Deployment Industry Code.

After thirteen meetings over the past year the Communications Alliance Code Review Working Committee (which includes community representation and the ACMA) agreed through consensus to a number of significant changes to improve notification and consultation associated with Low Impact facilities. This revision process has resulted in improvements in the revised draft Code as follows:

#### **Improved consultation**

- improved consultation plans to be 'fit for purpose', requiring mobile network operators to develop and evolve the consultation plan for new proposals.
- a new community consultation web portal for new base stations proposed under this Code providing significant improvement to information, transparency and access, to be housed on the Radio Frequency National Site Archive at <http://www.rfnsa.com.au/nsa>.
- extended timeframe for Councils to review consultation plans (from 5 to 10 business days).
- extended timeframe for community consultation and feedback (from 10 to 15 business days).
- additional time for community response if required (an additional 5 days).
- regard to public and school holidays and that appropriate extensions of time are provided for consultation during these periods.

#### **Health and safety improvements**

- improved and clearer information letters and signage which mobile network operators will use when notifying and consulting with local council and the community. Examples of the type of letters, plans, signs and reports are included in the Code.
- up-to-date RF Electro-Magnetic Radiation (EMR) Health and Safety information, reports and signage in keeping with the current and relevant standards.



### Information – improved availability

- a New Communications Alliance information portal at <http://www.commsalliance.com.au/mobile-phone-tower-information>, which will be updated with the publication of the revised Code.
- the online availability of consultation reports.

### Land access

- updating the Code with further information on Land Access and Activity Notices (LAANs), Facilities Installation Permits, compensation and land owners' rights.

The existing regulatory regime is complex but is working effectively. It strikes a balance between the mobile network operators' need for regulatory certainty in order to plan their investment in critical network infrastructure and ensuring communities are well informed and consulted in this process.

The Code process has allowed the industry to stay in touch with community attitudes and modify processes to address these where possible.

AMTA also notes and supports the Communications Alliance submission to the Inquiry which addresses the status of the Code in detail.

### Health and Safety - Community Concerns

In some cases community concerns focus on the electromagnetic energy that is emitted from mobile base stations.

Mobile phone base stations are designed and built to comply with strict science-based safety standards, which are recognised by national and international health agencies, including the World Health Organization (WHO) and the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

The industry relies on expert scientific opinion from international and national health agencies.

The WHO says:

*Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that weak RF signals from base stations and wireless networks cause adverse health effects*

In Australia, ARPANSA sets public and occupational limits of exposure to radio frequency radiation, which are designed to avoid any known adverse effects where people are exposed to radio frequency (RF) electromagnetic emissions (EME). Compliance with these exposure limits is a condition of radiocommunications licences issued by the Australian Communications and Media Authority (ACMA).

ARPANSA says:

*Levels of RF EME from mobile phone base stations are well below the limits specified by the Australian Communications and Media Authority (ACMA). In fact, surveys conducted by ARPANSA have found typical exposure levels from mobile phone base stations to be hundreds and sometimes thousands of times below the regulated limit.*

Community calls to have base stations sited away from community “sensitive” locations, such as schools and hospitals, do not reflect the way base stations operate and can have the opposite effect to that intended by those calling for so called buffer zones.

ARPANSA, commenting on so-called buffer zones, says:

*...arbitrary distances do not necessarily reflect a precautionary approach. In fact, infrastructure sited further from a community sensitive area may need to operate at a higher power and may result in higher EME exposures in that sensitive area. Furthermore, it must be remembered that evidence gathered by ARPANSA confirms that exposure levels in public areas are typically hundreds or thousands of times less than the exposure limit set by ACMA.*

Mobile phones and base stations are designed to operate at the lowest power to make a quality call. This is a basic design feature of all mobile and wireless broadband networks designed to extend battery life and manage interference in the network. Base stations and handsets adapt their output depending on the number of calls and the distance of the handset from the base station. The further a base station is built from residential areas the more power both the base station and the handset need to emit to maintain a quality call, which increases exposure to radio frequency magnetic fields – although these levels are still very low and compliant with Australia’s safety standards.

The WHO acknowledges the importance of having good network coverage to reduce potential exposure levels for mobile phone use. The WHO says:

*In addition to using 'hands-free' devices, which keep mobile phones away from the head and body during phone calls, exposure is also reduced by limiting the number and length of calls. **Using the phone in areas of good reception also decreases exposure as it allows the phone to transmit at reduced power.***

While mobile phones and network base stations have always reduced power output to the minimum level required to make a quality connection, modern third generation or 3G technologies have significantly improved this ability.

A recent study<sup>29</sup> of real life exposures found 3G networks more efficiently reduced their power output and the output of handsets. Their study showed that the most significant factor in the overall level of community exposure was the quality of network coverage. In some cases with good 3G network coverage the exposure from the mobile phone handset was the same as the nearby base station.

For more general information on expert scientific views expressed please go to:

<http://www.amta.org.au/pages/What.the.experts.say>

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<sup>29</sup> Gati et al. *Duality Between Uplink Local and Downlink Whole-Body Exposures in Operating Networks*, IEEE Transactions On Electromagnetic Compatibility, 1-8, Published Online: 20 September 2010.

## **Specific Operational Implications of the Bill**

### **Division 3, Clause 6 (7)**

The “co-location” of new antennas on an existing tower or pole at thousands of mobile network sites in Australia is critical to minimising the level of impact on the environment. Wherever technically feasible, the mobile network operators utilise existing infrastructure upon which to base new antennas.

At clause 6(7), the Bill proposes that tower extensions be limited to 1 metre. An extension of 1 metre only would simply be too small because standard antenna sizes are 1.2 metres to 2.7 metres. A 1 metre extension would not provide the necessary space and separation to accommodate any additional antennas nor allow sufficient distance from existing antennas to avoid radio frequency interference.

The carriers’ current ability to extend an existing tower as “Low Impact” in Industrial and Rural areas only, under the Telecommunications (Low-impact facilities) Determination, enhances mobile network operators’ ability to co-locate. Without this ability a Carrier may need to build a further tower nearby.

This will also lead to a greater proliferation of new towers and a corresponding increase in the burden on local government planning and development approval processes.

### **Division 4, Clause 8 (a)**

The changes proposed to this clause would frustrate the process of replacing old technology with upgraded equipment. For example, new antennas that require a very minor increase in the overall height of a facility may not be able to be established efficiently thereby impacting on the mobile network operators’ ability to meet demand for services including mobile broadband.

New technology would need to be assessed for compliance with Council planning controls, and may be subject to the requirement to obtain Council development approval. This process could take many months for no apparent gain.

Again this could place a significant and unnecessary burden on Council development approval processes and lead to significant increased administrative costs and delays.

**Division 5, Clause 17 (1) (c)**

The proposed Bill requires all “maintenance activities” and all “low impact facilities” to be notified to owners and occupiers of all properties within a 500 metre radius of the site. The requirement is not limited to radio facilities, however, the following analysis is focussed on the impact on mobile network facilities.

This provision for notification in the Act should not be mistaken for the process of notifying owners and occupiers through the registered Industry Code. The industry has adequately demonstrated its willingness to notify properties in the surrounding area pursuant to the provisions of the Industry Code for Deployment of Mobile Phone Network Infrastructure (C564:2004). The Code was developed through consensus with input from the industry, community activists and local government. The scheduled Code review is at present making further improvements to the notification and consultation process.

The proposed Bill has been developed to require a very significant increase in the number of notices by requiring contact with each owner and occupier within 500 metres of an existing site where a new antenna/s are to be added. This would be a massive task for the mobile network operators and owners and occupiers would receive many notices, and for very little apparent benefit, if any.

The logistics and costs associated with identifying all owners and occupiers within 500m is a very difficult task requiring (but not limited to) searching council records (where this is not restricted) and undertaking a formal Title Search. These activities would place a significant administrative burden on State Titles offices (where this is not automated) and Councils.

The types of activities which constitute “maintenance” and which would trigger a notification would include a software upgrade with no apparent visual change and repairs to a facility to restore service levels. There is a significant disconnect between any community benefits derived from such notification and the costs to undertake this level of consultation.

Deloitte Access Economics estimated that the additional annual costs resulting from the Wilkie Bill for “maintenance” activities could reach \$1.412 billion dollars per annum.<sup>30</sup>

It is worth noting that the current application of this section (provision for notification) of the Act is utilised when mobile network operators wish to access land and establish a facility utilising

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<sup>30</sup> Deloitte Access Economics “Economic Review of private members bills” – soon to be released (see appendix A)

powers and immunities. However, in the overwhelming majority of cases, mobile network operators negotiate commercial terms with land owners to secure long term tenure via leases and licences, often while preserving the powers and immunities.

There are occasions where mobile network operators will rely solely on the powers and immunities granted under Schedule 3 to inspect, install and maintain facilities without entering into such agreements. However, in most cases the landowners have accepted the issue of a Schedule 3 Notice, commonly referred to as a Land Access and Activity Notice (LAAN), without objection.

Again, a very small proportion of those owners or occupiers who have received a LAAN will raise objections which cannot be resolved to the mutual satisfaction of all parties. In these cases, if requested by the objector, the carrier refers the objection to the Telecommunications Industry Ombudsman (TIO) for determination.

We note that the process under Schedule 3 of the Act is not equipped to cater for notification to 500m from the proposed site of a Low Impact Facility. It is designed to deal with issues confronting the owner or occupier of the site upon which the carrier is undertaking an activity allowed for under Schedule 3. Complaints to the TIO from owners of property beyond the subject site will only be able to be dealt with by the TIO based upon an assessment of the issues associated with the subject site.

In early 2010 the mobile network operators reported to DBCDE that the mobile network operators issued 52,534 Land Access and Activity Notices (LAANs) pursuant to Schedule 3 of the Act between 1 January 2009 and mid December 2009. This was in response to a Parliamentary question from Senator Scott Ludlam.

The statistics below for the 2009 YTD for both fixed line (Wireline) and mobile (Wireless) demonstrate the frequency at which the legislated powers and immunities are used to deliver and maintain the various carrier networks in Australia. Note that these statistics are for the Wireline and Wireless activities of the members of the Mobile Carriers Forum, not the entire telecommunications industry.

For the 2009 YTD the mobile network operators issued Land Access and Activity Notices in the following volumes:

<b>LAANs</b>			<b>Objections</b>	
Wireless (Mobile) activities	181	(00.34%)	9	4.97%
Wireline activities		<u>52,353 (99.66%)</u>	101	0.19%
<b>Total</b>	<b>52,534</b>	<b>100.00%</b>	<b>110</b>	<b>0.21%</b>

Of the 110 objections received only 5 were unresolved and were subsequently referred to the TIO. All unresolved objections were determined by the TIO in favour of the carrier.

In respect of the Wireless activities, the mobile network operators have undertaken some 1200 installations (YTD) and on only 9 occasions did the owner or occupier raise objections and on only one (1) occasions was that objection unresolved.

**Division 5, Clause 17 (4)**

The Bill proposes to increase the notification period from 10 business days to 30 business days across the board for all maintenance and all low impact facility installation activities, including underground cable installation.

For some projects, a 30 day notification period would be possible. However, for most projects the imposition of a lengthy notification period would materially obstruct the Carrier's ability to respond to customer demand and carry out standard network maintenance.

The three mobile network operators carry out thousands of low impact facility and maintenance activities each year using the Telecommunications Act powers.

Scheduling these activities around weather, project readiness, and staff and equipment availability is a considerable logistical challenge, and an increased notification period will substantially impede this ability.

AMTA questions the value to the community that would be derived from the changes proposed in the Bill which would place a significant burden on the industry.

AMTA also notes that at present the Industry Code for Deployment of Mobile Phone Network Infrastructure (C564:2004) provides for a 10 business day period for community consultation. This is generally consistent with Council DA community notice periods. As noted earlier the

Code was developed through consensus with input from the industry, community activists and local government.

Before the proposed Bill was tabled, the scheduled Code review was proposing (through consensus) that consultation be extended from 10 business days to 15 business days. A 15 business day period would provide for a longer community consultation period on “low impact facilities” than would typically be required by Councils for a new telecommunications tower.

**Division 6, Clause 27 (1)(g)(ii)&(iii)**

We note that this amendment relates to a section of the Schedule pertaining to Facility Installation Permits (FIPs), which should not be mistaken for the Permits (Development Approval) issued by local government across Australia.

The proposed Bill seeks to amend a section of the Act that has never been utilised by the industry.

The imposition of an arbitrary distance from a “community sensitive site” is undesirable from a policy perspective for the following reasons:

- Given that a FIP would only be sought in extreme circumstances, and ACMA’s decision may be reviewed, it is inappropriate to limit ACMA’s discretion by the imposition of this 100 metre restriction. If the reasons for choosing the site are sufficient to justify a FIP on the other grounds, they may also be sufficiently compelling to permit the installation of a facility closer than 100 metres to a community sensitive site.
- Further, because a FIP can apply to any type of telecommunications facility, it is quite possible that the facility (the subject of the FIP), may have no impact at all on a “community sensitive site”. For example, cable installation that is not a low impact facility (because it is an area of environmental significance) is likely to have no impact at all on a community sensitive site.



## Conclusion

The growth of mobile broadband is widely recognised as central and increasingly influential component of our evolving digital economy with significant capability to contribute to economic productivity and social connectivity.

Central to meeting demand for advanced mobile services including mobile broadband is the efficient deployment of mobile infrastructure.

The Bill is proposed ostensibly in the interests of Australian local communities, however, AMTA submits that the proposed Bill will actually have an adverse affect on communities.

AMTA considers that the proposed Bill will have widespread consequences such as:

- reduced consumer welfare which will also be reflected in lost economic productivity given the enabling role played by mobile services such as mobile broadband;
- reduced ability of mobile network operators to efficiently deploy mobile infrastructure to meet demand which could result in diminished quality of service causing a significant loss in consumer welfare – all arising from inferior network coverage and capacity;
- potential under-investment by mobile network operators will also impact on network capacity and performance across the board, including important uses such as access to emergency services via emergency alert systems;
- an substantial increase in costs to local government in administering a large additional volume of consultation and approval processes;
- an actual reduction in community consultation and notification periods as infrastructure proposals are forced into Council Development Application (DA) processes;
- a potential reduction in the expected government revenue from future spectrum auctions as costs associated with the deployment of mobile infrastructure rate highly in investment decision making processes.

AMTA believes that the existing regulatory regime is complex but is working effectively to strike a balance between the mobile network operators' need for regulatory certainty in order to plan infrastructure investments to meet consumer demand while at the same time ensuring that communities are well informed and consulted.

AMTA would welcome the opportunity to discuss this submission with the Committee. For further information please contact Chris Althaus, CEO, AMTA on 02 6239 6555.

## **Appendix A:**

Extract from Deloitte Access Economics “*Economic Review of Private Members Bills*”

### **Executive Summary**

Two private members Bills have recently been introduced to Federal Parliament to amend Schedule 3 of the Telecommunications Act. These were the:

- *Telecommunications Amendment (Mobile Phone Towers) Bill 2011*; and
- *Telecommunications Amendment (Enhanced Community Consultation) Bill 2011*;

Deloitte Access Economics has been commissioned by the Australian Mobile Telecommunications Association (AMTA) to assess the potential cost implications of these.

In the report, these are referred to as the ‘Brown Bill’ and ‘Wilkie Bill’ respectively. If passed, these bills have the potential to impose significant costs on the industry, consumers and the government through delays or exclusions of base station network construction.

### **Demand for mobile services**

Mobile telecommunications have become the dominant form of telephony in Australia. As of June 2010 there were 25.99 million mobile services (voice and data) in Australia (ACMA 2010). This is more than double the number of fixed-line telephone services in Australia, a technology which has a declining rate of use. Some 2.3 million Australians no longer have a fixed-line telephone, relying upon just their mobile telephone number.

Use of mobile data, once a niche side product in mobile telecommunications, has moved into a rapid growth phase. Business consumers use mobile data to improve connectivity, accessing and responding to emails on the go. Individual consumers are increasingly using mobile data for a range of activities, including internet activity that would historically have been undertaken on a fixed machine through devices such as personal computers. Data-intensive video calls are also growing as a means of communication in place of voice calls.

It is expected that, over the coming years, the usage of mobile data will increase manyfold, both through increased adoption and the rapid increase in applications and intensity of use. Indeed, over the next 3-5 years mobile data is likely to become the main game in mobile telecommunications, overtaking mobile voice in importance. In order to meet this consumer demand a massive increase in capacity of Australia’s mobile infrastructure will be required. The mobile carriers face a challenge to meet this level of demand with their infrastructure, even without the imposition of barriers such as the proposed legislation.

Consumer demand for more and better mobile telecommunications services has two implications for the carriers:

- There is an expectation that service quality should be uniformly good and network access available across the entire population footprint of Australia; and
- Consumers expect network speeds and capacity to keep pace with the increased demand, without service interruptions from, for example, network congestion. They also expect improvements in the network to keep pace with demand for more advanced services, such as mobile video, that require higher speeds and bandwidth.

### Costs of proposed changes

The proposed changes will lead to the imposition of costs, delays and loss of consumer welfare:

- Increased approvals costs will be incurred for all planned mobile base station builds and upgrades due to the increase in consultation requirements. The increased consultation period and the increased rigour of approvals processes will cause construction delays.
  - In the majority of cases, these delay and consultation costs are imposed but the location of the base station is ultimately unaffected as no objections are raised.
- Where complaints are received, the delay is extended and more costs are incurred.
- In those cases where the carrier's response does not satisfactorily resolve community objections, a less efficient result will occur. This may take one of two forms:
  - A more costly network – in order to provide the same level of coverage as the rejected proposal, the carrier may undertake a more costly approach than that originally proposed.
  - If a cost-effective alternative site cannot be found no mobile base station will be built, meaning that either a black spot in the network remains, or upgrades to improve network quality and/or volumes cannot occur.

Deloitte Access Economics have undertaken estimates of the costs involved with this process, based upon estimates of several parameters, including the administrative costs of notifications, the length and costs involved in delays from objections, and the expected rate of objections under the proposed legislation.

The overall annual costs of the bill are \$2.20 billion, comprised of:

- \$2.06 billion per annum of additional administration costs, largely relating to the costs of many more notifications, and addressing an increased number of objections.
- A \$132 million per annum cost associated with a sub-optimal network outcome, when required facility construction, upgrade or maintenance does not occur as proposed. It is estimated here as an additional capital cost required to achieve the same network performance, but in reality it would also be realised as a lower network quality.
- \$14 million per annum cost reflecting the delay to required facility construction, upgrade or maintenance, whereby the capital is used less productively for the period of any delay than it would be if used productively providing telecommunication services.

### **Community Concerns**

The proposed Bills are intended to ease community concerns in three ways:

- Visual amenity concerns – regarding the unsightliness of mobile base stations;
- Health concerns – regarding the impact of emissions from base stations; and
- Perception of inclusion in decisions affecting the local community.

However in light of existing community consultations undertaken for base station builds and the lack of any substantiated evidence of any adverse health impact from mobile base stations, the value of the benefits derived from the proposed changes is insignificant.

### **Conclusion**

The Wilkie and Brown Bills have both been designed to ease community concerns about mobile telephone infrastructure, and to facilitate improved consultation with local communities before construction or work begins.

However, the legislative effect of each of the two Bills would be to create a system that makes the cost of completing the mandated legislative obligations to build new base stations or upgrade existing base stations prohibitively expensive, and runs the risk of substantial underinvestment in mobile telecommunications services in Australia going forward.

Coming at a time when the demand for mobile data is widely forecast to grow rapidly, this presents untimely barriers to an already challenging infrastructure development path for the mobile telecommunications industry, which may lead to large losses in consumer welfare.

## Appendix B

### ACMA Report on ACIF Code Complaints

#### Financial Year Summary 2002/03 – 2010/11

### ACMA Report on ACIF Code Complaints

Year	No of Complaints	Related No of sites	No of sites deployed (consultations conducted)
02 - 03	137	31	Not known
03 - 04	48	28	1300
04 - 05	42	25	1100
05 - 06	27	20	3639
06 - 07	31	21	1292
07 - 08	6	5	2587
08 - 09	8	6	1159
09 - 10	11	8	1580
10 - 11	7	5	4432

(Source: ACMA Annual Reports 02/03 – 10/11).

