

Submission Information

This cover sheet should be attached to submissions made to the Department of Communications in relation to the Mobile Coverage Programme Discussion Paper.

Contact Details

Name of respondent: Isaac Regional Council

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Date: 26th February 2014

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All submissions and comments, or parts thereof, will be treated as non-confidential information unless specifically requested, and acceptable reasons should accompany each request. Email disclaimers will not be considered sufficient confidentiality requests.

Respondents lodging a submission should be aware that submissions (excluding any information agreed to be treated as confidential information) will be made publicly available, including on the Department of Communications' website. Submissions and comments will be subject to freedom of information provisions. Despite a submission being identified as confidential or sensitive, submissions may be disclosed where authorised or required by law, or for the purpose of parliamentary processes.

Do you want all or parts of the submission to be treated as confidential? Yes No

If yes, identify below which parts of the submission are to be treated as confidential (and provide a reason):

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If the submission contains personal information of any third party individual, indicate on this Submission Cover Sheet if that third party individual has not consented to the publication of his or her personal information:

Submission Instructions

Submissions are to be made by **5:00pm (AEST) Friday 28 February 2014**.

Where possible, submissions should be lodged electronically, preferably in Microsoft Word or other text-based formats via the email address mobilecoverage@communications.gov.au

Alternatively, submissions can be sent to the postal address below (to arrive by the due date):

The Manager
Mobile Coverage Programme
Department of Communications
GPO Box 2154
CANBERRA ACT 2615

All submissions lodged will be acknowledged by the Department of Communications by email (or by letter if no email is provided). Respondents lodging a submission who do not receive acknowledgement of their

submission should contact the Department. Submissions which are not acknowledged by the Department as being received may not be considered. Respondents should be aware that emails greater than 10Mb may not be successfully delivered.

Executive Summary

Isaac Regional Council (IRC) provides this submission to the Australian Government's Mobile Coverage Programme discussion paper to highlight key areas of interest and concern. The Isaac local government area (LGA) spans an area of approximately 58,000 km² from the resource rich Bowen Basin to the Coral Sea in Central Queensland and is a significant contributor to the regional, state and national economies. However, despite the region's economic outputs, investment in critical infrastructure including water, power and telecommunications lags behind metropolitan areas and poses a significant constraint to growth. Independent broadband testing and digital infrastructure assessment in the region have indicated limited voice and mobile broadband coverage outside immediate urban footprints. Low speed dial-up internet access is the only option available to some rural communities. Given connectivity is arguably the central criterion for any region or place to access the rapidly growing digital economy, provision of adequate telecommunications infrastructure, as a key enabler of economic development, is a priority for IRC.

IRC realises the emerging digital economy will play a large part in determining the continued economic strength of the region. IRC is developing a regional telecommunications strategy to support socio-economic development processes within the Isaac Region to maximise the area's contribution to the broader regional economy. The regional telecommunications strategy aims to facilitate opportunities to increase productivity across a number of industry sectors, including agriculture, tourism and resource operations. It also presents an opportunity to meet demand from rural communities for equitable access to education, health and social services.

IRC recognises the Australian Government's Mobile Coverage Programme as having arisen from the RITIRC's 'Regional Telecommunications: Empowering Digital Communities' and broadly supports the stated intent of the Programme:

'The objective of the Mobile Coverage Programme is to invest in telecommunications infrastructure to improve both coverage of high quality terrestrial mobile voice and wireless broadband services in regional Australia, and competition in the provision of such services'.

Assessment of current digital infrastructure in the Isaac LGA revealed the following:

- Optus currently has 21 mobile broadband sites within the Isaac LGA. This equates to one site for every 2,804 klms². Moreton Bay Regional Council on the northern side of Brisbane, on the other hand has an Optus tower for every 34klms²
- Telstra has 97 sites in the area, equivalent to one every 606klms². Moreton Bay Regional Council area has one Telstra tower per every 21klms².
- Vodafone had four sites in the area; one per every 14,715klms². The Moreton Bay LGA has one tower per every 28klms² ¹

Given the level of mobile broadband coverage noted above, it is unsurprising there are a number of identified mobile 'black spots' in the Isaac LGA, and IRC agrees it is critical to address the digital divide between regional and metropolitan areas.

However, IRC is concerned the content of the discussion paper and proposed assessment criteria suggests the programme is skewed to the benefit of outer-metropolitan areas and larger regional centres to the disadvantage of the regional and remote areas whose economic outputs continue to underpin the state and national economies. Successful funding outcomes appear to be overly dependent on population/ premises assessment and providing maximum return of investment (ROI) for Mobile Network Operators (MNOs) and network infrastructure providers. The potential of regional areas to increase economic outputs and achieve long-term socio-economic sustainability is largely ignored.

In its current format the Mobile Coverage Programme appears to do little to mitigate the digital divide between the regions and metropolitan areas.

The delivery model for the Programme will need to consider alternative options if the Australian Government is genuine in its efforts to improve mobile voice and broadband services and coverage in regional Australia. Specifically the following must be addressed:

- Shift from population centric assessment criteria to potential increased economic outputs for industry sector underpinning the state and national economies and capacity to attract population and deliver equitable socio-economic outcomes in line with State and Federal Government Regionalisation policy and strategy
- Reflect a genuine understanding of regional and seek to benefit regional and rural communities rather than MNOs.

Regional Profile

The Isaac LGAs estimated resident population (ERP) was 23,720 in 2012, however with an estimated additional 17,125 workers associated with the resource sector housed in worker accommodation villages (WAVs) the full-time equivalent (FTE) population is estimated to be 40,850. The resident population is projected to grow at an average annual rate of 2.3%, exceeding the state average of 1.8%, with a resident population of 37,000 forecast by 2031. Population projections for the non-resident workforce are derived from possible outcomes arising from the future development of resource projects and operations and as such there is some degree of uncertainty about the likelihood of these projects proceeding as assumed. High and low series growth scenarios suggest a non-resident workforce of between 14,920 and 24,760 by 2019.²

Gross Regional Product (GRP) in Isaac LGA was \$11.7 billion in 2011/2012, a slight decrease of 0.7% in real terms since 2010/11. Isaac continues to rely heavily on the resource sector, in particular coal mining, which contributes \$9.1 billion (77.4%) to the regions total GRP. The Isaac LGA alone produces over 52% of Queensland's total saleable coal and generated 46% of Queensland's total royalties revenue of \$2.58 billion.

Based on the size of its population Isaacs's contribution to Queensland's GSP is eight times higher than the state average.³

² Queensland Treasury and Trade Bowen and Galilee Basins non-resident population projections 2012-2013

³ REDC Economic Profile 2012

The region hosts 26 operating coal mines, with a further 2 under construction, and 29 in advanced development phase.⁴ Mining employs over 39% of Isaac's resident workforce⁵, and attracts a significant non-resident workforce utilising FIFO and DIDO workforce arrangements.

General Comments

All three Programme delivery options rely on bids from MNOs and/or specialist network infrastructure providers. Insofar as bidders are required to contribute significantly to capital costs, it is reasonable to assume, as commercial entities, they will be seeking to maximise return on investment. While the list of priority locations will be provided by federal government based on submissions/expressions of interest received, bidders appear to be able to determine which sites on the list are suitable for their investment and propose additional sites not included in the list. While a proposed location may be on the priority list, successful funding is dependent on bidders' determination of its economic viability. As the discussion paper notes 'If negotiations could not be satisfactorily concluded for one or more base stations it would be removed from the list'. Given MNOs and specialist network infrastructure providers final investment decisions are likely to be based on the potential number of end users in order to maximise returns, less densely populated areas will be disadvantaged with doubtful capacity to secure funding.

It would be useful to provide a definition of 'small communities' as referred to in the discussion paper. Population limits must be explicitly defined. Also an area's capacity to increase economic outputs given access to adequate telecommunications infrastructure should be considered. For example, communities hosting agricultural sector operations, while often sparsely populated will experience significant economic gains if able to utilise next generation technologies on mobile networks.

The ability to remotely monitor, evaluate and manage much of a farm's operations has the potential to provide enormous gains around inputs and productivity. Spatially-enabled tools and techniques underpin Sustainable, Manageable and Accessible Rural Technologies, or SMART Farming that will increase crop and pasture yields through better targeting of water and/or fertiliser inputs and increase livestock production through improved animal management and increased pasture utilisation. SMART Farming also offers the means to achieve improved environmental outcomes through highly efficient use of resources; spatially-enabled technologies can reduce the water and carbon footprint of farming.

Also of general concern is the amount of the total funding pool. While IRC recognises all tiers of government are facing increased fiscal constraints, whether \$100 million will be sufficient to make a tangible impact on the provision of adequate telecommunications infrastructure in regional areas is questionable. While location, access and user requirements will impact the final estimated cost of each base station on an individual basis, the Clarke Creek community in the Isaac LGA recently received a quote from Telstra for the installation of a base station and repeater to the amount of \$2 million. While the discussion paper indicates

4 DNRM 2013

5 ABS Census 2011

bidders will be required to contribute significantly to capital cost, but does not explicitly specify how much. Assuming a 50% co-contribution, this could equate to only 50 new base stations for the 75% of Australia's land mass the discussion paper indicates as not currently receiving mobile service.

Response to submission questions

1. *Would an appropriate minimum quality standard be that base stations must provide high speed 4G LTE mobile broadband data communication services and also high quality mobile voice and broadband data services. If this is not an appropriate minimum quality standard what is?*

- IRC agrees the same network speeds and quality as typically available in metropolitan areas should be delivered to regional areas, particularly in light of non-metropolitan areas' greater dependence on telecommunications to deliver equitable service provision in areas such as telehealth and distance education.
- Currently Telstra mobile broadband and voice services are most widely represented in many regional areas. The stated objective of the Mobile Coverage Program includes the provision of competition in provision of mobile voice and wireless broadband services. While recognising the Programme is in planning phase and no timeframes have been specified, the capacity of other MNOs to compete with Telstra in the provision of high speed 4G LTE mobile services should be considered. One telecommunications industry observer noted that while Telstra are leading the market in moving to 4G LTE

‘Vodafone won't have LTE until next year and Optus has just begun 4G deployment’.

Telstra is further solidifying its dominance in Australia, with another industry observer claiming

‘With accelerated investment in the LTE network, we believe Telstra's mobile rivals will find it difficult to challenge Telstra's network superiority. They will need to pursue strategies as ‘alternative’ providers to Telstra. We do not see any challenge to Telstra's infrastructure leadership, particularly in mobile, in the foreseeable future’.⁶

While it can be argued that securing funding may enhance other MNOs to compete effectively, it is not unreasonable to assume that Telstra may have achieved scale economies and workforce development that other MNOs will not be able to replicate in the Programme timeframes and as such may inhibit competition.

2. *What are the most appropriate indicators that could be used to specify the minimum Quality Standards that should apply to mobile services being provided through the programme? For instance, should it be a minimum received service signal indication (RSSI) in decibel-milliwatts (dBm)? A similar approach was adopted recently in the UK where a comparable programme specified a minimum RSSI for 3G voice and basic data service of -85dBm on roads and -75dBm in community areas (outside premises).*

- Wireless network latency could also be considered as a measurement of network performance. While a significant amount of attention and interest tends to be paid to wireless network speeds, little light has been focussed on wireless network latency. This is surprising considering latency is defined as the time it takes for a source to send a packet of data to a receiver. Latency is typically measured in milliseconds. The lower the latency (the fewer the milliseconds) the better the network performance. Lower latency may provide a direct service advantage for immersive and interactive application environments which could possibly improve health and education outcomes in regional areas.

3. *Does Delivery option 2 for the \$80 million Mobile Network Expansion Component raise any additional issues that need to be considered?*

- The Mobile Coverage Programme's assessment criteria are largely population centric. While IRC recognises the criteria has likely been designed to attract investment by MNOs seeking to maximise ROI over the short to medium term, focussing on the profit margins of commercial entities, rather than the potential of adequate telecommunications infrastructure to ensure positive socio-economic outcomes and achieve sustainability in regional areas, means all three delivery options described in the discussion paper serve to disadvantage the regions the programme is supposedly designed to assist.
- Many of the industries which underpin the state and national economies, notably the resource and agricultural sectors are necessarily predominately located in regional remote and rural areas. In the Queensland context there are no indications of any policy which aims to reduce the state's economic reliance on the resource sector. Rather, the current government is seeking to continue its dependence on outputs from the resource regions to sustain metropolitan areas. At the launch of the State Government's ResourcesQ Framework, a 30 year plan for the mining sector, Queensland Premier Campbell Newman stated

“The aim will be to ensure Queensland remains a global resource destination and continues to build on its competitive strength”.

- The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) report – ‘What Asia wants Long-term food consumption trends in Asia’ investigated increased demand for numerous agricultural commodities from Asian countries, as these countries become increasingly urbanised and diet and

7. <http://www.fiercewireless.com/special-reports/3g4g-wireless-network-latency-how-do-verizon-att-sprint-and-t-mobile-compar#ixzz2r6Us7XUp>

8 <http://informaaustralia.wordpress.com/2013/11/29/30-year-mining-strategy-unveiled-in-queensland/>

consumption patterns shift.⁹ Australia is well placed to meet increased demand, but to do so viably must, among other things, adopt next generation technologies to increase efficiencies and drive productivity.

The ability to remotely monitor, evaluate and manage much of a farm's operations has the potential to provide enormous gains around inputs and productivity. Spatially-enabled tools and techniques underpin Sustainable, Manageable and Accessible Rural Technologies, or SMART Farming that will increase crop and pasture yields through better targeting of water and/or fertiliser inputs and increase livestock production through improved animal management and increased pasture utilisation. SMART Farming also offers the means to achieve improved environmental outcomes through highly efficient use of resources; spatially-enabled technologies can reduce the water and carbon footprint of farming.

Many emerging technologies require mobile-wireless services to work. Access to mobile-broadband and a voice service is important to capture the next generation of productivity improvements such as the water efficiencies in the agricultural sector. Businesses in rural and remote areas want to take advantage of these technological developments but are limited by poor mobile coverage.¹⁰

- As such none of the three Programme delivery options are conducive to sustaining long term economic growth. It is critical that a model reflective of a region's current and predicted contribution to broader state and national economies is considered in funding decisions.
4. *Could options 3(a) or 3(b) for the \$80 million Network Expansion Project be delivered in conjunction with options 1 or 2 to enable network infrastructure providers to compete with MNOs?*
 - Refer response to Q3
 5. *Should bidders be able to propose to incorporate the use of base stations owned by NBN Co as part of their bid?*
 - Under current NBN Co criteria the provision of high speed internet to rural Australia will largely be via satellite, the 'poor cousin' of the three connection options. Insofar as fixed wireless base stations will be limited, there will therefore be a limited number of base stations to leverage for additional services and certainly not enough to provide a consistent solution across regional and rural Australia. As such efforts to enhance investment attraction through partnerships with NBN Co will further disadvantage rural and regional areas.
 6. *Should a joint bid (between a specialist network infrastructure provider and an MNO be permitted? Should it be encouraged?*

9 ABARES What Asia wants – long term food consumption trends in Asia 2013

10 Australian Government 2011-2012 Regional Telecommunications Independent Review Committee: *Regional Communications: Empowering Digital Communities*

- The Isaac experience casts doubt on the willingness of MNOs to negotiate with specialist network infrastructure providers. Clarke Creek is a rural location located in the Isaac LGA. The local economy is largely driven by beef production and broad acre cropping. The area currently receives no mobile voice or broadband services and ADSL 1 and ADSL 2+ are not available. The community have been striving to achieve mobile broadband and voice services in the area for a number of years and have examined various provision models. The community note

‘It has...been our experience that service providers will not negotiate with other agencies that are able to build telecommunications infrastructure at a markedly reduced price. We were able to source a company to build a NEXTG tower at a fraction of the cost quoted by a service provider. However the service provider was not willing to negotiate this alternative.’

While this may not always be the case, and may be more reflective of operational policy in a monopoly, barriers to infrastructure provider/service provider partnerships should be investigated.

13. *Should the proposed open access provisions be applicable to base stations funded under the \$20 million component or should there be scope to exclude some of the base stations from this requirement?*

- a. Notwithstanding the points raised in response to Q3, which highlight the inherent bias of the delivery options towards the expansion of mobile services in outer-metropolitan and larger regional centres, excluding sites from this requirement may increase the chances of coverage being delivered to small rural communities, but would likely also reduce competition benefits and lead to situations such as described in the Clarke Creek example in the response to Q6, where by MNOs leverage their monopolies to maximise returns. Mechanisms to ensure small communities are not ‘held to ransom’ by service providers should be developed.

15. *Do the proposed assessment criteria achieve the right balance to deliver the best value for money outcomes?*

1. **Match with the priority programme locations** – each proposed base station (or single base station within a group) will be assessed according to whether it is located within one of the priority locations.

- a. **\$80 million Mobile Network Expansion Project:** For a base station included within a bid for this component, whether it improves mobile coverage along major transport routes, in small communities and in areas that are prone to experiencing natural disasters.

b. \$20 million Mobile Black Spots Project – For a base station included within a bid for this component – whether it provides coverage to improve mobile coverage in locations with unique coverage problems, such as areas with high demand for services during seasonal holiday periods.

- ‘Unique coverage problems’ are not limited to ‘high demand for services during seasonal holiday periods’. Socio-economic considerations such as education and health service provision must also be considered. The Clarke Creek State School in the Isaac LGA is significantly disadvantaged by the absence of mobile broadband services. With no ADSL1 or ADSL 2+ available the school relies on an ISDN service of 128 kpbs, which does not support the digitised curriculum. Teaching staff report some downloads can take up to 20 hours. Interactive lessons such as Japanese are not accessible. The school does not qualify for any coverage under the NBN. While telehealth offers great potential in the delivery of healthcare in regional and remote areas, lack of critical telecommunications infrastructure means identified benefits will not be realised. Patients will still be required to travel to larger centres for treatment and monitoring, at both economic and social costs.
- It would be useful to provide a definition of ‘small’ communities and ‘major’ transport routes. As noted earlier in this submission, many of the regions hosting significant resource and agricultural operations are sparsely populated, despite their economic outputs and would struggle to compete for funding under the current population centric criteria if a ‘small’ community in reality refers to population counts in the thousands. Further, with the trend towards non-resident workforce practices (Drive In, Drive out (DIDO) / Bus In, Bus Out (BIBO)) associated with the resource sector, many connection roads between the coast and the coal basins have experienced significantly increased traffic usage and could be considered ‘major’ transport routes in terms of meeting the labour demands of the resource sector. In addition, routes without mobile coverage are often avoided by tourists and other visitors for safety and convenience. Consideration should be given to transport routes’ potential to encourage wider dispersal of tourism related spend into regional communities should mobile services be available.

3. Extent of Coverage benefit – each proposed base station (or group of base stations) will be assessed according to:

- a. The number of premises located within the new mobile coverage footprint (as addressed using the current G-NAF – the authoritative index of geocoded Australian addresses).*

- b. *The length of the national or state highways and arterial roads (as defined by PSMA Australia Ltd) within the new 'handheld' and 'external antenna' footprints (in kilometres).*
- c. *[For the \$20 million component only] The number of sites/rooms/cabins/offered by accommodation providers (for example, motels or caravan parks) within the new 'handheld' and 'external antenna' footprints.*

- It is naïve to assess coverage benefit based on number of premises and length of national and state highways if the Australian Government is genuine in its bid to address the digital divide between metropolitan and regional areas. It is critical that coverage benefit assessment consider the economic and social benefits outlined in IRCs response to Q3.
- There is an opportunity to support regional tourism and associated benefits outside major arterial routes that appears not to have been considered. There is opportunity to align the provisions of the Mobile Coverage Programme with, for example, the Queensland Drive Strategy to maximise the economic benefits of the program.

4. *Co-contributions – each base station (or group of base stations) will be assessed according to*

- d. *The amount of co-contribution being provided by the bidder*
- e. *The amount of co-contribution being provided by the relevant state or territory government or other third party. Bidders will need to consult with the relevant state and territory governments to determine and secure their level of co-contribution for each base station.*

- a. This criterion is of significant concern to IRC, since it assumes the Queensland Government wishes to support regional areas, which is not the reality in the Isaac experience. Despite media releases professing support for regional Queensland such as the state's Local Government Minister, David Crisafulli's recent statement

“We want regional Queensland to be the powerhouse of this state's economy. We want people to live in those communities, be part of those communities, and create the job and economic development opportunities that go with that” ¹¹

in practice, Queensland Government actions are in direct contradiction of their stated position and actively serve to undermine the socio-economic viability of resource regions.

- b. Between 2011 and 2013 resource operations hosted by the Isaac LGA generated in excess of \$3 billion dollars in royalty payments to the Queensland Government.¹² These payments appear to be largely used to support Brisbane and the south east corner. In order to pay lip-service to the regions supporting the state economy the Queensland Government launched their Royalties for the Region's funding initiative in 2012 which will invest \$495 million in new and improved

community infrastructure, roads and floodplain security projects over a four year period in order to give 'back to the communities that support resource projects'. In reality however, the program has failed to deliver any significant benefits for the Isaac LGA.

Royalties paid to the Queensland Government are generated from 24 local government areas, which bear the brunt of cumulative socio-economic impacts associated with resource sector operations. Under the Royalties for regions funding criteria however, 67 local government authorities are eligible to apply for funding. This means that 84% of eligible local governments do not directly host resource operations, nor bear the brunt of associated cumulative socio-economic impacts, but compete with genuine resource regions for a share of the funding.

Since the launch of the Royalties for the Regions initiative, IRC has received \$750,000 of funding under the program. This equates to approximately 0.03% of royalties generated in the Isaac LGA being returned to the region to deliver infrastructure necessary to sustain economic growth.

A further indication of the Queensland Government's apparent destination to hollow out resource regions for the benefit of metropolitan areas is its support for resource sector trends towards a non-resident workforce source from coastal and interstate locations. While the resource sector has historically offered employees a choice of workforce participation options including permanent relocation to resource regions, recently the resource sector made unprecedented changes to workforce arrangements which removed genuine choice from the labour market. BHP Mitsubishi Alliance not only secured Queensland government approval for a 100% FIFO workforce for its Caval Ridge and Daunia Mines, near Moranbah in the Isaac LGA, but further specified potential employees would only be recruited from Cairns or Brisbane, metropolitan areas.

In light of these examples of the Queensland Governments support for the regions that support the state, communities in the Isaac LGA will be significantly disadvantaged if State Government is to be relied on to contribute to capital costs of new telecommunications infrastructure.

5. *Value for money for the Commonwealth – each proposed base station or (or group of base stations will be assessed according to:*
 - a. *The cost to the Commonwealth per square kilometre of coverage provided by the base station/s*
 - b. *The cost to the commonwealth per premises covered by the base station/s*
 - c. *The cost to the Commonwealth per kilometre of national or state highways or arterial road covered by the base station/s*

- d. 'Value for Money' cannot simply be defined by short-term costs. The long term sustainability of the national economy relies on economic outputs from regional areas and as such constitutes 'value for money' over the long term. Similarly the economic dividends of the provision of equitable access to education and health services in regional areas cannot be easily measured on dollar value in the short-term but nevertheless also represents value for money over the long term. In order to avoid the inevitable pitfalls of short-sighted funding decisions, the extent to which mobile coverage will also facilitate improved socio-economic outcomes should also be considered.

7. Commitment from more than one MNO – each proposed base station (or group of base stations) will be assessed according to the number of MNO's that have committed to utilising the proposed base station/s to deliver the mobile services on a commercial basis for a minimum of 10 years

- e. *The minimum requirement for each proposed base station is a commitment from one MNO to deliver the specified services.*
 - f. *Additional weight will be given to base stations or group of base stations where more than one MNO has agreed to deliver the specified services.*
- g. As outlined earlier in this submission, while population form the basis of the assessment criteria, and MNOs are required to contribute significantly to capital; costs investment decisions by MNOs sparsely populated areas will be disadvantaged despite their capacity to increase economic outputs through uptake of next generation technologies relying on a mobile broadband platform.

16. Should the proposed assessment criteria be weighted, and if so, how?

- h. To ensure the benefits of the Mobile Coverage Programme extend to genuinely regional areas, it is essential the criteria are amended to assess potential socio-economic improvements should funding be secured.

18. To what extent would the use of the NBN fixed wireless network result in improved mobile coverage outcomes in regional Australia?

- i. As previously highlighted in this submission, much of regional Australia is scheduled to receive interim satellite services – as such there is unlikely to be any appropriate infrastructure in remote/regional/rural communities.