TELSTRA CORPORATION LIMITED

Response to Regional Connectivity Program – discussion paper

12 September 2019

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Introduction

Telstra welcomes the opportunity to provide input into the Regional Connectivity Program (RCP) discussion paper. Delivering services to regional Australia is important to Telstra as demonstrated by our historical investment to deliver coverage to 99.5% of Australia's population. Over the five years to June 2019 our total mobile network investment has been around $8 billion, of which almost $3 billion has been invested in regional areas.

In addition to Rounds 1-4 of the Federal Government's Mobile Blackspot Program (MBSP), Telstra has been a long-term partner of both Federal and State Governments in investing in telecommunications infrastructure in regional Australia. Examples of some of these recent co-investment projects can be found in **Attachment A**.

By any measure, the MBSP has been a resounding success. Across four rounds, the Federal Government has successfully leveraged industry, Federal, State and Territory Government contributions of over $760 million to deliver improved mobile coverage through the construction of 1,047 new sites.

We are delighted with the role we have played in the successes achieved to date and will be building over 75% of the MBSP sites, committing over $280 million and delivering new and improved coverage to over 60,000 premises across an area of around 200,000 sq km.

While the MBSP has been highly successful in delivering infrastructure to regional Australia, the model for co-investment is facing challenges due to the declining number of customers for each new mobile site. In part due to the success of the MBSP, the ongoing business case for further investment of shareholder funds is increasingly harder to justify under the current model.

We think it is time to implement new and innovative ways for governments to partner with industry to continue to deliver improved telecommunications services and outcomes for regional Australia with a steady pipeline of projects. The discussion paper has described the RCP as a complement to the MBSP, we recommend that the Federal Government go one step further and look at the RCP as the future model for future co-investment programs, including the MBSP.

Contribution model

From a first principles perspective, co-investment supports the delivery of new and upgraded infrastructure that would otherwise be uneconomic. With respect to new remote mobile sites for example, a basic measure of a site's economics is the number of people that are likely to be served by that site. Using that measure from Rounds 1 to 4, we have seen an 85% decline in the average number of customers receiving new outdoor coverage per site.

The declining number of customers per site means the revenues a carrier can earn from each blackspot are low, and we are now at a point where revenues are insufficient to offset the operational costs of the sites, particularly in NBN Satellite areas. This may mean that the business case for the telecommunication provider does not support the delivery of mobile infrastructure even if there may be major local and national economy wide productivity uplifts from delivering coverage to those areas.

Whilst the current contribution approaches taken by Federal and State Governments has made the delivery of some remote sites possible, the viability of these projects is diminishing under current Government contribution models. It is our assessment that we have reached a point where the share of Federal, State and third-party contributions relative to carriers' will need to be higher in order to maintain the momentum seen in previous regional co-investment programs.

The challenges with the economics extend beyond just delivering new mobile coverage to remote areas. They equally apply to other enabling infrastructure such as backhaul and transmission networks.

Addressing this challenge will require the Government to exercise the flexibility to increase its contribution beyond the 50% cap, especially where projects provide substantial benefits to communities but cannot attract funding from sources beyond the carriers. We therefore recommend that the Federal Government does not set a cap on its contribution.

Likewise, operational costs factor into carriers' decisions when assessing the merits and viability of any co-investment proposal. To ensure a pipeline of viable projects, we recommend that the program should consider allowing upfront contributions from the Federal Government that represent a share of the 10-year operational costs. This could bring into scope projects that deliver social and economic benefits that would otherwise be discounted. To ensure proper use of Federal Government funding, the arrangements could include the ability for the Federal Government to recover the contribution on a pro rata basis if the infrastructure is decommissioned within 10 years.

Identification of priority areas and projects and involvement of licenced carriers

We welcome the proposed 'placed-based' approach to investment as we consider that this will allow for a more strategic understanding that considers the economic, educational and social needs of a region.

To do this well requires a whole-of-government based approach that seeks feedback from all levels of government including representative regional groups such as regional development groups and telecommunication carriers.

We think that the discussion paper's suggested 'bottom up' approach to project identification would be improved by a 'top down' perspective as well. We therefore recommend that the Federal Government takes the lead in providing a national perspective on priority regional areas for investment. This could be identified through a cross departmental/agency group to share data on transport infrastructure, agriculture, tourism, digital literacy and communication. These perspectives could also be shared with State governments to provide guidance on areas governments may wish to prioritise projects to deliver greatest national return on investment.

We anticipate the Federal Government will be seeking to maximise the social and/or economic benefits delivered through co-investment in regional connectivity, and the analysis and consultation we propose is designed to enable Government to identify programs that will achieve this aim.

In relation to how funding applications are proposed, while we agree that all proposals must have a licenced carrier as part of the bid, we do not consider that all funding applications are required to be led by a carrier. Communities led by local government authorities are often best placed and most motivated to find solutions for their community and should be given the chance to lead on proposals and bring together a coalition of interests. The involvement of a carrier will provide a level of assurance that the application is feasible.

In relation to business organisations or industry groups being able to lead a bid, we welcome their input in constructing a bid, but believe the submission should either be led by a local government authority, State Government or a licensed telecommunications carrier.

Scope of projects eligible for funding

We agree that all proposed solutions under the program must not be currently available in the area. For example, if an IOT network is already available over a 4G mobile network, funding should not be put towards projects designed to deliver an IOT network to an area.

This program presents an opportunity to address a major issue facing delivery of communications to regional and remote Australia – backhaul. Backhaul is the infrastructure and supporting equipment that provides connectivity and capacity from the network infrastructure (such as a mobile tower) back into the core network. Broadly speaking, it consists of two elements the:

a. medium over which the traffic is carried (e.g. fibre and/or radio); and

b. transmission equipment which encodes/decodes the information across the medium.

In regional and remote areas, it is often cost prohibitive to provide the connectivity and backhaul to upgrade to newer technologies. Even in cases where infrastructure (e.g. fibre and radio systems) exist, improvements are often not possible without costly upgrades of the supporting transmission equipment.

As long as the project does not replicate an existing infrastructure solution (i.e. 4G to an area served by 4G) we recommend that the program allow for the delivery of the broadest range of proposals to improve regional connectivity. We therefore recommend the guidelines allow proposal submissions including:

1. **Backhaul projects** – this could cover a range of potential projects for example the:

    a. North West Tasmania Project under which Telstra and the Federal Government have co-funded improvements to transmission capacity that will allow for 4G upgrades and, in turn, enables the possibility of 5G into this regional area.

    b. Birdsville fibre optic cable that delivered new high capacity backhaul into a series of remote towns that were previously unserved and deliver mobile and fixed solutions.

2. **Expanding existing commercial agreements to deliver improved services to remote areas** – for example, Telstra has partnered with the South Australian Government to deliver enhanced fixed broadband connectivity to a number of schools, however there remains a number of remote schools that were not connected. This could be supplemented with program funding to deliver connectivity to these more remote schools, and at the same time provide social and other benefits to the surrounding community. The contribution of grant money to existing commercial agreements could be extended many other existing commercial agreements with State, Federal and Enterprise customers. It could also be used to support complementary projects, for example the inland rail project. The project will require telecommunications infrastructure to support the trains, funding from the RCP could increase the scope of the project to include delivery of coverage to communities along the rail line.

3. **Devices to enable greater access to existing coverage to an area** – there are a number of carrier approved end user coverage enhancement devices available, such as the Cel-Fi Go, which can enhance and/or extend existing coverage. Funding or subsidising such devices provides a very cost-effective means of addressing localised coverage issues, especially when compared to the cost of addressing them through the installation of a new Base Station or Small Cell.

4. **Satellite based solutions** – Not all project proposals need to rely on terrestrial backhaul, which becomes increasingly costly in remote areas. Telstra's 4GX-lite Satellite Small Cells can deliver voice, broadband and IOT connectivity significantly more cost effectively. These would particularly suit very remote communities and farming co-operatives.

5. **Agribusiness connectivity and training**– In some areas producers may have access to an IOT network but not have the skills to best utilise it. The RCP could fund pilot programs that deliver a complete IOT solution for a number of small business producers in a remote area, to deliver subsidised IOT devices/sensors, training and data analytics. Results from this pilot could be used to develop repeatable solutions for other producers facing the same IOT deployment challenges.

We believe the RCP scope should remain broad to accommodate a wide range of prospective projects such as, but not limited to, those above. We acknowledge that the Federal Government may wish to prioritise projects that deliver new coverage to areas within the NBN Satellite footprint. However, we also think that it should be flexible enough for projects that will deliver material, economic and social outcomes even if the project delivers minimal new coverage.

It is time for a bold new approach to be taken to deliver telecommunication solutions for remote and regional Australia. We see the RCP as the model for the future for regional co-investment with future MBSP rounds reflecting the RCP.

Open Access

Telstra supports open access as provided for by current regulatory settings, which both promote investment and facilitate efficient competition. In particular, we believe that projects delivered under this program should be subject to the principles applied through existing regulatory regimes for DTCS and tower access. These regimes have been developed and refined following multiple broad consultations. We also support requirements that ensure that tower infrastructure is built to accommodate a second party co-locating their mobile radio infrastructure. In addition to existing open access, where applicable, the Government may wish to take into account carrier bids that include discounts to wholesale pricing should bidders choose to compete in this way.

Our answers to the specific questions in the Regional Connectivity Program Discussion paper are provided in **Attachment B**.

ATTACHMENT A: Telstra's partnership with government in co-investment 2010-2019

- The delivery of new fibre to Birdsville, Burketown and Aurukun through co-investment with the Barcoo and Diamantina Shires, the Queensland Government and the Federal Government.
- In 2012, the Western Australian Government invested $39.2M towards the Regional Mobile Communications Project (RMCP) in which Telstra delivered approximately $106 million of value to the Western Australian Government. This project included the construction of 113 new regional mobile base stations along major roads and highways across Western Australia.
- A $5.8M co-investment partnership in 2013 between Telstra and the Northern Territory Government to deliver new mobile sites and ADSL connectivity to 13 remote communities.
- In 2015, Telstra and the Western Australian Government extended the successful RMCP project through the $27 million Regional Telecommunications Project which delivered an additional 23 new stations across rural Western Australia.
- The three-year (2015-2018) $30M Infrastructure and Sustainability Co-Investment Agreement (ISCA) with the Northern Territory Government to expand mobile services to remote Northern Territory communities.
- A four year (2019-2023) $28M co-investment program with the Northern Territory Government expanding on the ISCA program to deliver additional mobile connectivity to remote indigenous NT communities.
- Telstra's co-investment into a $14M program with a range of stakeholders in far north Queensland to bring updated mobile telecommunications services to the islands in the Torres Strait.
- A $2.5M co-investment program in the Far North Queensland community of Hope Vale to deliver improved fibre and mobile connectivity for the remote indigenous community;
- Co-investment with the Federal Government to improve mobile services to the North West Coast of Tasmania.
- Two projects representing a combined value of $21.8M under the Building Better Regions program delivering improved coverage and capacity to Flinders Island and Regional South Australian town of Elliston.
- A $15M Victorian Blackspot program co-funded by Telstra and the Victorian Government.

ATTACHMENT B: Responses to RCP Discussion Paper Questions

Question 1 Are there additional elements that should be incorporated into the design of the Regional Connectivity Program?

No.

Question 2 Should other parties, for example local government authorities, business organisations or industry groups, be allowed to lead a bid for RCP funding?

Yes.

While all proposals should have a licenced carrier as part of the bid, we do not believe there should be a requirement that all funding applications are carrier led. Telstra are supportive of local government authorities, such as Local Councils and Regional Development Authorities being allowed to lead a bid, as they are often best placed and most motivated to understand the needs of their respective communities. This however should require engagement with licensed telecommunications carriers to jointly develop prospective submissions. The requirement for the direct involvement of a carrier will provide a level of assurance that the bid solution is feasible.

In relation to business organisations or industry groups being able to lead a bid, we welcome their input in constructing a bid, but believe the submission should either be led by a local government authority or a licensed telecommunications carrier.

Question 3 Are there other organisations beside local, state and territory governments that could be considered 'trusted sources of information' for the purposes of identifying local telecommunications priorities?

Yes.

In addition to local, state and territory governments, we consider the Federal Government should seek feedback on telecommunication priorities from legally incorporated regional groups such as Regional Development Australia (RDA) committees, or their state-based equivalents, and regional conglomerates of local regional councils. There is a limitation on how far and wide Government could consult on priorities, so we support an integrated cross-Departmental approach as a means to getting the level of intelligence required to identify priority areas.

Question 4 Are there ways that the Department can facilitate linkages between potential infrastructure providers and local communities?

Yes.

We consider the placed based approach to this program has a lot of merit. However, we think that RCP's discussion paper's suggested 'bottom up' approach to project identification would be improved by a 'top down' perspective as well.

We would therefore recommend that in addition to bids being led by carriers and local government authorities, the Federal Government takes a strategic role in identifying regions of national priority.

A cross departmental and agency group should be convened (for example, Departments of Agriculture, Industry, Infrastructure, Communications and Tourism Australia) tasked with sharing government data to identify national priorities.

This could be used to also co-operate with state governments to provide guidance on what areas the Federal Government may wish to highlight as delivering greatest national return on investment. This group could share data with their counterparts in State Agencies.

We anticipate the Federal Government will be seeking to maximise the social and/or economic benefits delivered through co-investment in regional connectivity, and the analysis and consultation we propose is designed to enable Government to identify programs that will achieve this aim.

We appreciate that this is not a simple task and will require some development and work, however, this will assist in making strategic decisions on areas for prioritisation of investment, thereby delivering the best "bang for buck" to the Australian economy and confidence to the Government that the funding will lift national productivity.

Question 5 Are there any comments you wish to make in relation to co-contributions?

The economic case for delivering communications infrastructure into regional and remote areas is becoming increasingly harder for carriers to justify. With typically more dispersed population in these areas, the viability of these projects is diminishing under current Government contribution models. For example, there has been a ~85% decline in the average number of customers receiving new outdoor coverage per site between Round 1 to Round 4 of the MBSP.

In many cases, any prospective returns do not even cover ongoing operational costs of the infrastructure. This will mean that even in areas where national productivity benefits may be high from improved connectivity, the potential revenues for telecommunication carriers are not commensurate. This therefore presents a barrier to investment for carriers, even when non-monetary benefits are present.

We have therefore reached a point where Federal, State and third-party contributions relative to carrier contributions will need to increase to ensure a pipeline of viable mobility projects. This will include an increase in the level of co-contribution from the Federal Government beyond 50%.

Telstra supports open access as provided for by current regulatory settings, which both promote investment and facilitate efficient competition. In particular, we believe that projects delivered under this program should be subject to the principles applied through existing regulatory regimes for DTCS and tower access. These regimes have been developed and refined following multiple broad consultations. We also support requirements that ensure that tower infrastructure is built to accommodate a second party co-locating their mobile radio infrastructure. In addition to existing open access, where applicable, the Government may wish to take into account carrier bids that include discounts to wholesale pricing should bidders choose to compete in this way.

Question 6 What type of projects should be considered for funding through the RCP?

As long as the project does not replicate an existing infrastructure solution (i.e. 4G to an area served by 4G) we recommend that the program allow for the delivery of the broadest range of proposals to improve regional connectivity. We recommend that the guidelines should be broad enough to allow proposal submission including:

1. Backhaul projects – this could cover a range of potential projects for example the:
    a. North West Tasmania Project under which Telstra and the Federal Government have co-funded improvements to transmission capacity that will allow for 4G upgrades and, in turn, enables the possibility of 5G into this regional area.
    b. Birdsville fibre optic cable that delivered new high capacity backhaul into a series of remote towns that were previously unserved and deliver mobile and fixed solutions.
2. Expanding existing commercial agreements to deliver improved services to remote areas – for example, Telstra has partnered with the South Australian Government to deliver enhanced fixed broadband connectivity to a number of schools, however there remains a number of remote schools that were not connected. This could be supplemented with program funding to deliver connectivity to these more remote schools, and at the same time provide social and other benefits to the

surrounding community. The contribution of grant money to existing commercial agreements could be extended many other existing commercial agreements with State, Federal and Enterprise customers. It could also be used to support complementary projects, for example the inland rail project. The project will require telecommunications infrastructure to support the trains, funding from the RCP could increase the scope of the project to include delivery of coverage to communities along the rail line.

3. Devices to enable greater access to existing coverage to an area – there are a number of carrier approved end user coverage enhancement devices available, such as the Cel-Fi Go, which can enhance and/or extend existing coverage. Funding or subsidising such devices provides a very cost-effective means of addressing localised coverage issues, especially when compared to the cost of addressing them through the installation of a new Base Station or Small Cell.

4. Satellite based solutions – Not all project proposals need to rely on terrestrial backhaul, which becomes increasingly costly in remote area. Telstra's 4GX-lite Satellite Small Cells can deliver voice, broadband and IOT connectivity significantly more cost effectively. These would particularly suit very remote communities and farming co-operatives.

5. Agribusiness connectivity and service support – In some areas remote and regional businesses owners may have access to an IOT network but not have the training to utilise the network. The RCP could fund pilots to areas to subsidise IOT devices, connectivity plans deliver training and data analytics to lower the take-up barrier for small businesses (e.g. regional and remote agricultural businesses).

We believe the RCP scope should remain broad to accommodate a wide range of prospective projects such as, but not limited to, those above. We acknowledge that the Federal Government may wish to prioritise projects that deliver new coverage to areas covered within the NBN Satellite footprint. However, we also think that it should be flexible enough for projects that will deliver material, economic, and social outcomes even if project delivers minimal new coverage.

Question 7 Are there any comments that you wish to make in relation to the proposal that all Funded Solutions will provide Retail Services for a minimum of 10 years after the Asset has become operational?

This requirement is understandable to guarantee ongoing continuity, and that a significant contribution from government is matched with a long-term communications solution.

Telstra is supportive of this requirement; however we believe that there are instances where the ongoing cost to maintain infrastructure far exceeds the potential revenue obtainable over the 10 year term. An example of this would be the ongoing operational cost to lease a subsea fibre to provide connectivity to locations such as Christmas Island.

We recommend the capitalised net present value approach used for satellite backhaul ongoing costs is extended to include subsea fibres and other infrastructure so this can be factored into the cost of building these solutions. This should apply in instances where there is a disproportionately high operating cost throughout the term relative to the potential revenue achievable in delivering the solution. This would expand the scope of projects that could be considered for submission by carriers.

Question 8 Are there any comments in relation to the proposed Eligible and Ineligible Areas?

No.

Question 9 Are there any comments you wish to make in relation to the proposed eligible and ineligible expenditure?

To facilitate the inclusion of projects with disproportionately high operating costs relative to potential revenue, we recommend that consideration be given to the grant contribution being extended to include ongoing operational costs. We propose the same capitalised net present value approach used for satellite backhaul be used to allow these operating costs to be included in the cost of building the solution.

To ensure proper use of Federal Government funding, the arrangements could include the ability for the Federal Government to recover the contribution on a pro rata basis if the infrastructure is decommissioned within 10 years.

Question 10 Are there any particular circumstances where it may be appropriate for the Commonwealth to make some contribution to ongoing operational expenditure?

Yes.

See response to questions 7 and 9.

Question 11 Is there a case for a third category, for highly localised solutions for projects that, for example are seeking funding of less than $200,000 (GST inclusive)?

Yes; however we believe the threshold should be increased to $300,000.

This price threshold would suit solutions such as Telstra's 4GX-lite Satellite Small Cells, which offer voice, broadband and IOT connectivity. This is an ideal localised solution, particularly for remote communities and farming co-operatives.

Question 12 Are there any other design principles that should be considered?

Yes.

As per question 4. The proposed approach is very bottom up driven. We think that there should also be a top down design principle whereby areas of national priority are identified by the Federal Government via collaboration across departments and between governments.

This will identify regions or localities that will deliver the greatest contribution to the national economy and social benefit (e.g. increased digital literacy). The program could then provide a weighting to projects that deliver to that area.

Question 13 Do you have any comments on the proposed assessment criteria?

Telstra recommends that flexibility be added such that a majority of the merit criteria be met rather than stipulating that "all" merit criteria be met. This would protect against projects being disqualified for failure to meet all of the criteria. An example might be a site delivered to provide mobile coverage to address health and safety concerns, but where an economic benefit cannot necessarily be established.