

# Response to On Farm Connectivity Discussion Paper

Questions for Suppliers



# We are Connected Farms.

Based in Regional NSW, Connected Farms is an Australian-owned company specialising in on-farm connectivity technology designed and customised for agricultural applications throughout Australia.

Connected Farms exists to provide connectivity and agritech solutions to farmers so they can use them to farm safely, efficiently and economically. Our solutions give farmers the means to increase their yields and reduce their inputs by enabling digital agriculture.

The professional careers of our leadership team have been forged in the Telecommunications Industry, however, they come from farming backgrounds, so understand what drives the agriculture sector and most importantly the intersection of technology, connectivity and successful farm operations.

We enable wide-area mobile (4G) broadband and satellite on the move (SoTM) connectivity across the farm which allows growers to adopt digital agriculture. Digital agriculture cannot be adopted without accessible on-farm connectivity.

Our on-farm networks are supported by Low Earth Orbit (LEO) enterprise satellite internet backhaul, off grid power, edge computing for increased data analytics and computational ability, and regionally made towers.

As a licenced telecommunications carrier, Connected Farms deploys carrier grade connectivity solutions that are robust and tested to withstand the harshest on-farm conditions.



# Question One

## Would you be interested in applying to be an eligible equipment service provider?

As a dedicated agriculture connectivity solutions provider, Connected Farms is interested in applying to be approved as an eligible service provider.

Connected Farms is a specialist agriculture connectivity provider with 'on farm' products and installations tailored to the agriculture sector to improve connectivity for primary producers. Our solutions and equipment are designed for 'place-based' geographic coverage and farm management applications.

We deliver innovative business grade Low Earth Orbit (LEO) Satellite on the Move (SoTM) broadband connectivity solutions and equipment which allows primary producers and agribusinesses to adopt digital agriculture and a range of on-farm technologies such as LoRaWAN, satellite IoT, sensors, AgTech devices, robotics and automation.

There remains significant value to unlock in the agriculture sector through digital connectivity, adoption and innovation. The Australian Farm Institute has found that unconstrained adoption of digital agriculture and advanced farming technology could add over \$20 billion to the gross value of Agriculture production. Within this context, Connected Farms welcomes any funding initiative that seeks to respond to local priorities for connectivity equipment and maximise economic opportunities and social benefit through incentivising digital agriculture adoption.

## Question Two

### Do you have any comments or questions about proposed eligibility requirements for equipment service providers?

Connected Farms supports the exclusion of last mile connectivity solutions and CSPs unless they have dedicated agriculture products and installations.

Connected Farms also supports the requirement for eligible services providers to demonstrate a track record of delivering workable solutions to Australian primary producers.

'Workable' solutions are critical to test, as our experience in working with primary producers is that many solutions and equipment which they have previously purchased on-line etc are simply not fit-for-purpose nor ruggedised enough to withstand typical Australian agriculture environments. Vetting of products and equipment will be a key contributing factor to the ultimate success and effectiveness of the program.

Connected Farms is of the view that approved equipment service providers should also be required to outline the capabilities and limitations of their equipment. For example, specialised boosters or repeaters will only work where they can pick up a 4G signal to amplify. Our experience is that many farms do not have the signal strength to enable such equipment to work effectively leading to conclusions of 'equipment failure' by the user as opposed to the equipment or product not being fit for purpose on farm. Program integrity is critical in this regard.

## Question Three

### What would hinder you from participating as an eligible equipment service provider?

Administration of grants process will need to be simple and easy to implement. Overly complex and onerous administrative arrangements which delay primary producers from receiving equipment and require significant resource overhead from the eligible equipment provider to administer would act as a disincentive to participate. Slow processes risk the reputation and brand equity of the equipment service provider in delivering these products to primary producers.

Connected Farms is well aware of the wide-ranging cost profile associated with equipment installation, training and travel costs to service farms in rural and remote locations. It is our experience that 'plug and play' solutions have very limited success in these areas due to the complexity of connectivity solutions and their integration requirements, the lack of signal, unique on-farm operations and digital adoption training needs.

Connected Farms would be deterred from participating as an eligible equipment service provider if the installation, training or travel costs were excluded from the eligible equipment criteria for preparing a fixed price quote.

## Question Four

### **What is the most popular and relevant connectivity product your business provides to farming, fisheries or forestry businesses?**

Connected Farms' most innovative and popular product for farming businesses is our LEO Satellite 'on vehicle on the move' solution (SoTM) which has been developed specifically for the agriculture sector.

Our SoTM solution allows farmers to connect anywhere, anytime across their entire farm by taking the SoTM equipment with them, mounted on their vehicle, tractor or machinery. This enables voice, mobile and data connectivity, data-intensive robotics, automation and more intensive precision farming functions. This effectively removes the need for 'last mile' connectivity.

Other key and popular Connected Farms equipment and products for the agriculture sector likely to be eligible include high gain repeaters, satellite and other IoT gateway connectivity devices and various local or wide area WiFi solutions.

## Question Five

**Do you have any concerns regarding sourcing connectivity products? Are there any supply chain issues currently affecting your business?**

Supply chain security is important to Connected Farms and we have a robust supply chain, localised product warehousing and proven forecasting capabilities to ensure delivery of hardware as required. For these reasons we don't anticipate supply chain issues.

## Question Six

### Do you have any suggestions on how the Program can be improved?

The list of eligible equipment should also include LEO 'satellite on the move' products to ensure that the On-farm Connectivity Program:

- reflects the current state of the market and products on offer and is not funding legacy products and equipment that are no longer fit-for-purpose
- has regard to innovations in connectivity that will unlock significant value for farmers in their cost benefit proposition and return on investment.

Connected Farms notes that the 6-month fixed price model for equipment supplies will be dependent for certain providers on fixed agreements with suppliers and the global supply environment.

We are unclear from the discussion paper if it is the intention of the On Farm Connectivity Program that:

1. an On Farm '6-month fixed price catalogue' will be produced listing equipment from which farmers can select products; or
2. the 6-month fixed price model requires an approved equipment provider to honour a quote to a farmer for a 6 month period and freeze prices associated with the product or equipment for a 6-month period.

Connected Farms would have significant concerns if the intent were (1.) to produce a '6-month fixed price catalogue'. This is because non-fixed costs such as travel, installation, training need to be treated on an individual quote basis depending on farm location, size, digital adoption status together with a range of other factors. These can vary considerably in cost profile. While Connected Farms is able to honour a quote for a 6-month period and provide fixed pricing quotes for equipment for a 6-month period, we would be unable to absorb the type of non-fixed costs associated with equipment installation and delivery in a fixed price catalogue offering. As noted above, these type of costs are dependent on the individual farm, location, size, Agritech devices, training needs etc.



## Question Seven

Please provide any other information that you think would assist the Department in designing this Program.

The On Farm Connectivity Program design should:

- have regard to learnings and experiences, both positive and negative (including from the primary producers) around roll-out of similar programs such as NSW DPI Farms of the Future.
- as a key foundational objective, support the adoption of new and innovative technology solutions that accelerate digital adoption and provide the broadest coverage footprint of connectivity. This would include funding equipment such as LEO satellite on the move, a potential game-changer in digital agriculture adoption, allowing mobility, whole of farm connectivity which is not limited to signal pockets where boosters and repeaters can extend use of existing 3G/4G signal, farm safety and productivity potential.
- have regard to broader the telecommunications environment and networks plans by major telcos to ensure farmers are not supplied with legacy or stranded equipment and assets. For example, the imminent closure of Telstra's 3G network means that any solution that requires 3G to work and is unable to roam onto 4G should be precluded from this program by design.
- have regard to ensuring that products and equipment contribute to a connected farm digital adoption pathway. Farmers experience a significant amount of 'box shifting' from equipment providers where the product is sold, but the solution is not accompanied by end-to-end installation, quality assurance, testing and device integration. This fails to equip farmers with the tools for the adoption of advanced agricultural technologies.
- recognise that farming operations are complex and are not simply 'plug and play'. There is significant value to unlock through uptake of Agritech if it is integrated properly on-farm. Approved products and equipment should support the connectivity pathway to adopt and experience digital agriculture on farm, thereby unlocking value in the agriculture sector through digital adoption.

## To discuss this response, contact



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