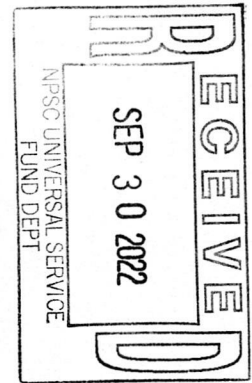


Before the
NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska Public Service)
Commission, on its own motion, to) Application No. BEAD-1
implement the Precision Agriculture Grant)
Act.)



COMMENTS OF CTIA

CTIA¹ respectfully submits the following comments in response to the Nebraska Public Service Commission's ("Commission's") Opinion and Findings ("Opinion"), entered August 16, 2022 in the above-captioned docket, regarding implementation of the Precision Agriculture Infrastructure Grant Act ("Act")² via the Commission's Precision Agriculture Grant Program ("PRO-AG").

CTIA appreciates the opportunity to provide feedback to the Commission as it crafts its rules for PRO-AG. Wireless innovations are helping to transform agriculture and can provide huge benefits for farms and farmers. 5G connectivity, in particular, is a game-changer for agriculture. 5G's fast speeds, high capacity, and low latency are helping reimagine and enhance food production from farm to fork, enabling precise applications of water and fertilizer, and giving farmers key data points about their crops. For example:

- **EarthSense's** TerraSentia autonomous robot can scan up to 10 plants per second for height, leaf-area index and other indicators of health. 5G makes it possible, with fast speeds and low latency enabling data to be sent in real time—allowing farmers to manage crops more efficiently.

¹ CTIA – The Wireless Association ("CTIA") (www.ctia.org) represents the U.S. wireless communications industry and the companies throughout the mobile ecosystem that enable Americans to lead a 21st century connected life. The association's members include wireless carriers, device manufacturers, and suppliers as well as app and content companies. CTIA vigorously advocates at all levels of government for policies that foster continued wireless innovation and investment. The association also coordinates the industry's voluntary best practices, hosts educational events that promote the wireless industry and co-produces the industry's leading wireless tradeshow. CTIA was founded in 1984 and is based in Washington, D.C.

² LB 1144 (Neb. 2022), as codified at Neb. Rev. Stat. §86-1403 *et seq.* (2022).

- Startup **Trellis** is helping family farmers grow more with less water. Using 5G powered soil sensors, farmers can more accurately irrigate their crops. Trellis helped one Georgia farmer save 7 inches of rain water over the course of a season—equal to nearly 38 million gallons of water for an average 200 acre farm.
- Managing irrigation, pests and diseases too often involves time- and fuel-intensive trips back and forth from the field to process data. 5G-powered sensors from **innov8.ag** process instant information on trees' density, as well as the moisture in the soil and weather conditions, to improve tree health and increase yields.³

Moreover, wireless buildout provides benefits beyond the farm and into the surrounding area, including expanded coverage and higher speeds and capacity thanks to the deployment supported by PRO-AG funding.

Similar to the Commission's more general universal service efforts, the best way to help ensure that PRO-AG funding is being used most effectively is for the Commission to create rules for the program that foster competition and allow for the broadest base of potential grant recipients to serve Nebraska. These are sound guiding principles both with regard to this particular program as well as for any Broadband Equity, Access, and Deployment ("BEAD") allocations the Commission may be tasked with distributing in the future.

I. THE COMMISSION'S RULES FOR PRO-AG SHOULD FOSTER COMPETITION AND ATTRACT ALL QUALIFIED PARTICIPANTS

As the Commission creates its rules for PRO-AG, it should seek to ensure that the grants are used as efficiently and equitably as possible. While there is a massive amount of money coming into Nebraska via the BEAD program, the Commission should continue to prioritize minimizing waste.

³ For more information and case studies, see "5G Economy Spotlight: Feeding the World with 5G" (September 1, 2021), available at <https://www.ctia.org/news/5g-economy-spotlight-feeding-the-world-with-5g> (last accessed Sep. 30, 2022).

The Act has given the Commission broad latitude to craft rules for the PRO-AG program, imposing only two requirements by statute for providers: adequate connectivity is defined at speeds of 100/20 Mbps, and projects must be completed within twelve months of grant award (with an additional six-month extension permitted).⁴ With this flexibility, the Commission should craft rules for PRO-AG – and any further programs to distribute BEAD funding – that are competitively neutral and do not unnecessarily limit technological solutions used for service.

The Commission should establish minimum standards for grant applicants themselves, but otherwise encourage applicants to compete for grant money on the basis of their offerings rather than set a minimum service bar or similar regulatory requirements that could dissuade participation in the program. The minimal requirements established by the Legislature reinforce this argument, suggesting a legislative intent to attract a large field of potential applicants.

The more qualified applicants that the Commission is able to review, the higher the likelihood that competition will keep costs lower and encourage efficient use of grant money. Moreover, it increases the likelihood that the Commission will see exciting new ideas for precision agriculture among applicants like the 5G innovators highlighted *supra*.

II. CTIA RESPONSES TO SPECIFIC QUESTIONS IN THE OPINION

A. *Question 1: Entities Eligible to Receive Grants*

In Question 1, the Commission asks about eligibility criteria and definitions for grant recipients. In general, eligibility criteria for PRO-AG funding should be, as described above, as competitively and technologically neutral as possible so as not to discourage qualified applicants.

That said, the Commission still needs to implement basic standards to prevent applicants without the ability to serve from wasting the Commission's resources in review, or worse,

⁴ Neb. Rev. Stat. §86-1405 (2022).

wasting grant money itself. CTIA recommends that, with regard to providers, the Commission establish standardized eligibility criteria such as requiring proof of established 100/20 Mbps service by the provider for a reasonable period of time, and/or proof of existing spectrum license or lease for the area to be served. Regardless of how the Commission crafts these requirements, eligibility criteria should still be simple and standardized, to minimize the burden on potential applicants.

B. *Question 4: Match Percentage and Grant Amounts*

In Question 4, the Commission asks about requiring that applicants provide matching funds. This is not a requirement that the Act set out, and the Commission should not require a match. Requiring matching funds makes it more difficult for smaller providers to participate in the program, potentially distorting competition.

C. *Question 5: Speed Testing and Broadband Affordability*

In Question 5, the Commission asks about speed testing and potential affordability requirements.

With regard to speed testing, the Commission should use the speed testing requirements established by the FCC for the Connect America Fund and Rural Digital Opportunity Fund,⁵ which are also the speed tests being used by NTIA for its BEAD grant allocations.⁶ That makes those tests wholly appropriate for use in PRO-AG, as well as familiar to applicants already. There are a variety of technical considerations to take into account when creating a speed testing regime, and the Commission should not expend time and resources attempting to “reinvent the wheel” regarding an issue that the FCC has already compiled a significant record on. Proof of

⁵ See, e.g., Connect America Fund, WC Docket No. 10-90, Order, 33 FCC Rcd 6509; Connect America Fund, Order on Reconsideration, WC Docket No. 10-90, 34 FCC Rcd 10109 (2019).

⁶ See NTIA, Notice of Funding Opportunity, Broadband Equity, Access and Deployment Program (May 13, 2022) at 64.

100/20 Mbps service at a fixed location should be considered sufficient to meet the standards of the Act, so as not to require the “blanketing” of large swaths of farmland that may not require 100/20 speeds for agricultural applications (such as soil testing or plant data).

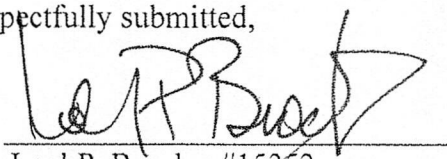
With regard to affordability, the Commission should be thoughtful about any affordability requirements, and it may be prudent in the context of this agriculture-focused program not to impose any. The Act does not contain any requirements regarding affordability, and the subject does not speak to an applicant’s ability to provide service. Moreover, it is difficult to define what “affordability” would mean in the context of this program. Because precision agriculture seems to be a fairly specialized marketplace and likely to have high variability between different eligible product and service types, it could be difficult – if not impossible – for the Commission to produce a fair definition of “affordable” for the services offered. The best way for the Commission to help ensure that the products and services offered by grant recipients are affordable is to craft competitively-neutral, technology-neutral policies for the program, thus encouraging a wider variety of eligible participants to compete for funding.

III. CONCLUSION

The hundreds of millions of dollars in federal money being earmarked for broadband in Nebraska represents a generational opportunity for infrastructure growth and modernization in the state. By crafting technology-neutral, competitively-neutral rules for PRO-AG and any other BEAD programs the Commission will be tasked with administering, the Commission can help ensure that this significant investment is used as efficiently and effectively as possible to help connect Nebraska’s citizens and their businesses.

Respectfully submitted,

By



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