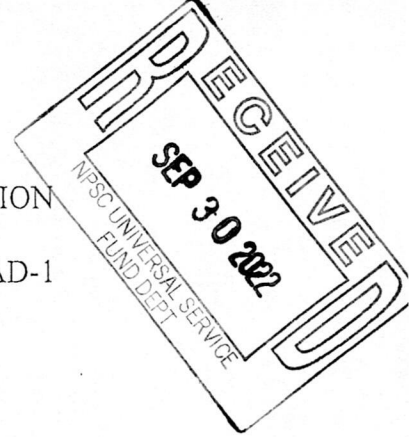


BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

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



**COMMENTS OF REINKE MANUFACTURING CO., INC., THE HAMILTON  
TELEPHONE COMPANY AND NEBRASKA CENTRAL TELEPHONE COMPANY**

Reinke Manufacturing Co., Inc. (“Reinke Manufacturing”), The Hamilton Telephone Company and Nebraska Central Telephone Company (collectively the “Telcos”) respectfully submit these comments in response to the Nebraska Public Service Commission (the “Commission”) Order Opening Docket and Seeking Comment entered on August 16, 2022 (the “Order”), to implement the Nebraska Precision Agriculture Infrastructure Grant Act (the “Act”).<sup>1</sup> Reinke Manufacturing and the Telcos appreciate the opportunity to provide these Comments.

**BACKGROUND**

Reinke Manufacturing was formed in 1954 to manufacture farm and commercial building structural components at a manufacturing facility located in Deshler, Nebraska. In the late 1960’s Reinke Manufacturing began production of center pivot irrigation systems utilizing innovative design features that are now used worldwide by major manufacturers of center pivot and lateral move irrigation systems. During the decades following the 1960s, Reinke Manufacturing consistently developed and marketed innovations to its irrigation systems. During the decade of the 2000s, Reinke Manufacturing introduced the Navigator GPS guidance swing arm corner system for its center pivots. Additional advancements such as Precision

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<sup>1</sup> *Neb. Rev. Stat. § 86-1401 et seq.*

Management main control panels and satellite-based communications with its center pivot systems were implemented by Reinke Manufacturing.<sup>2</sup>

Use of technology to implement precision agriculture management practices is a critical component of Reinke Manufacturing's irrigation systems. These technology-based precision agriculture innovations include Reinke Precision Management control panels that provide continuous positioning control of the irrigation system; Variable Rate Irrigation to allow application of precise amounts of water to match soil variables and topography; Crop X soil monitoring through use of above ground and underground sensors to minimize water waste and maximize yields; and ReinCloud irrigation system management and control through use of cell phones or computers. These technologies rely significantly on wireless and satellite communications infrastructure.

The Telcos are affiliated companies with common ownership that operate under the trade name "Hamilton Telecommunications," are each familiar entities to the Commission and are regulated providers of local exchange telephone service and broadband service in Central and North Central Nebraska. The Telcos serve exchanges located in the Platte River Valley and the economic base of the rural portions of these exchange areas is predominantly irrigated crop production farmland. In Nebraska Central's case, the rural portions of its North Central Nebraska exchange areas are part of the Nebraska Sandhills and ranching is the predominant agricultural economic base. In combination, the Telcos service areas consist of nearly 4,000 square miles that comprise approximately 5% of Nebraska's 77,824 square miles and serve 30 Nebraska communities.

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<sup>2</sup> A more expansive description of the history of Reinke Manufacturing and its innovations relating to irrigation systems can be found at [Company History - REINKE IRRIGATION](#).

Hamilton Telephone is nearing completion of a fiber-to-the home (“FTTH”) network to all service locations in its service area. Nebraska Central Telephone is also well into the construction of a totally fiber-based network to provide FTTH connectivity to all locations in its service area. These fiber projects will significantly enhance the telecommunications and information services available to the Telcos’ customers, and particularly, the Telcos’ rural ag-centric customers. Additionally, Hamilton Telecommunications provides fixed wireless and FTTH broadband services in 15 service areas outside the Telcos’ local exchange service areas, delivering high-speed Internet access to otherwise unserved or underserved locations in Nebraska.

### **GENERAL OBSERVATIONS**

As stated in the Act and in the Order, one of the purposes of the Precision Agriculture Infrastructure Grant Program (“PRO-AG”) is to “[p]ropel Nebraska agricultural producers to lead the nation in precision agriculture connectivity, sustainability, traceability, and autonomy to accelerate rural economic development.”<sup>3</sup> As evidenced by the information in the preceding “Background” section, Reinke Manufacturing is a Nebraska-based manufacturer that regards itself as an “agricultural producer” based upon its design and manufacture of irrigation systems that are critical to production agriculture in Nebraska and throughout the world. These irrigation systems rely on wireless and satellite connectivity for delivery of precision agriculture to its customers. Reinke Manufacturing’s irrigation systems improve soil health and the judicious use of water resources through the utilization of water management tools and sensors. As such, Reinke Manufacturing respectfully submits that its technology and product development

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<sup>3</sup> *Neb. Rev. Stat.* § 86-1403(1)(a) and Order at 1.

initiatives fully qualify for grant support to be provided by PRO-AG consistent with the terms of the Act and the Legislature's articulation of the use of PRO-AG funding to ensure connectivity for the agricultural community and for the adoption of precision agriculture solutions.<sup>4</sup>

As is also stated in the Act and the Order, a further purpose of PRO-AG is to "[p]rovide high-speed Internet service to farm sites as defined in section 77-1359 in unserved areas of the state as defined in section 86-1302."<sup>5</sup> Creation of networks that will support "adequate precision agriculture connectivity" as defined in section 86-1402(1) to all farm sites located within the Telcos' service areas is the goal of the Telcos' FTTH projects. The Telcos look forward to submission of grant applications for PRO-AG funding to utilize and build upon this connectivity.

## **COMMENTS IN RESPONSE TO SPECIFIC COMMISSION INQUIRIES**

### **A. Entities Eligible to Receive Grants**

The Commission seeks comment on the entities eligible to receive grant funding. Section 86-1404(1) provides in pertinent part that "[a] provider, an agricultural cooperative, an agronomist, or an agricultural producer may apply to the commission for a grant under the program." Of these named eligible applicants, only "provider" is defined in the Act to mean "a wireless network provider that provides adequate precision agriculture connectivity."<sup>6</sup> "Agricultural cooperative" and "agronomist" are terms with generally understood meanings. "Agricultural producer" is a more generic term that would likely include production agriculture farmers, but also should be interpreted by the Commission as inclusive of providers of goods and services to the agriculture industry, including manufacturers of irrigation systems such as Reinke

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<sup>4</sup> *Neb. Rev. Stat.* § 86-1404(2)(a) and (c).

<sup>5</sup> *Neb. Rev. Stat.* § 86-1403(1)(b) and Order at 1.

<sup>6</sup> *Neb. Rev. Stat.* § 86-1402(4).

Manufacturing. Since one-half of available grant funds are required by the Legislature to be awarded for provision of “adequate precision agriculture connectivity to on-farm structures and devices, including . . . irrigation systems,”<sup>7</sup> the Commission should permit an “agricultural producer” such as Reinke Manufacturing to partner with providers of adequate precision agriculture connectivity such as the Telcos in applications for grant funds pursuant to Section 86-1404(2)(a), as well as to apply individually for grant funds pursuant to Section 86-1404(2)(c).

As indicated in the Background section above, the Telcos furnish “adequate precision agriculture connectivity” in their service areas principally through FTTH networks, but also through wireless networks. Consequently, grants for which the Telcos may apply in the future would serve the purposes of the Act as stated in section 86-1404(2)(a) to provide “[a]dequate precision agriculture connectivity to on-farm structures and devices, including, but not limited to, tractors, combines, irrigation systems, livestock facilities, and farm offices.”

## **B. Funding Sources**

The Commission asks for comments on the issue whether funding for PRO-AG is an eligible use of funds provided through the Broadband Equity, Access, and Deployment Program (“BEAD”) and the Notice of Funding Opportunity (“NOFO”) released by the National Telecommunications and Information Administration (“NTIA”) for the BEAD program. The Act specifies that the Commission “may utilize” funds provided to the State through BEAD to fund PRO-AG up to \$2 million annually. The Act further provides in Section 86-1404(3) that one-half of the annual funding shall be used to provide grants for precision agriculture connectivity to on-farm structures and devices. This use of BEAD funds seems to be well within

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<sup>7</sup> *Neb. Rev. Stat.* § 86-1404(2)(a) and (3).

the scope of “last-mile broadband deployment projects” as provided in the NOFO.<sup>8</sup> With regard to non-deployment uses, the NOFO does not foreclose funding for the uses envisioned by the Act. Eligible uses “include but were not limited to” the list of items in the NOFO.<sup>9</sup>

If the Commission has not yet done so, it may be advisable to provide the NTIA with sufficient information regarding the Act’s PRO-AG funding directives to obtain further clarity as to whether any potential obstacles exist under the terms of the NOFO to the use of BEAD funds for projects as enumerated in the Act. In the event that NTIA declares that the funding required to be distributed pursuant to the Act does not fall within BEAD acceptable uses, the Commission should revisit the funding source for PRO-AG with the Legislature so that the Legislature can determine whether to amend the Act to permit other funding sources for grants pursuant to PRO-AG.

### **C. Grant Priorities**

The Commission seeks comment on prioritization of grant funding to be used for adequate precision agriculture connectivity pursuant to Section 86-1404(2)(a). Pursuant to the NOFO requirements, grant applications must be vetted through a competitive bidding process.<sup>10</sup> Based upon considerations regarding the efficient use of the Commission and its Staff time and resources, and in order to build upon the foundation of the criteria previously established in the Nebraska Broadband Bridge Program (the “NBBP”) for reviewing and ranking grant applications, Reinke Manufacturing and the Telcos strongly suggest that it would be reasonable

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<sup>8</sup> See, NOFO § IV.B.7.a.ii, pp. 36-38.

<sup>9</sup> *Id.*, § IV.B.7.a.iii, pp. 39-40. Ineligible project costs are listed on pp. 82-83 of the NOFO.

<sup>10</sup> *Id.*, § IV.B.7, p. 35.

for the Commission to adopt the NBBP Guide for Program Year 2022 to govern the competitive bidding process and other administrative aspects relating to PRO-AG.<sup>11</sup>

In its fine-tuning of the NBBP bidding criteria to specifically address the requirements of the Act and PRO-AG, the Commission should give consideration to the FCC Precision Ag Taskforce Report dated November 10, 2021, *Task Force for Reviewing the Connectivity and Technology Needs of Precision Agriculture in the United States*, which emphasizes precision agricultural priorities for equipment and software for machine-to-machine communication such as:

1. Remote devices for water management.
2. Monitoring soil preparation, planting and harvesting.
3. Monitoring stored commodities.
4. Livestock production and sensors that track animal health, movement, behavioral and biometric data.

The Commission should also consider overarching goals associated with the furtherance of environmental, societal and economic benefits to the State, and in particular, water conservation. In 2019, the USDA estimated that Variable-Rate Technologies could lead to 40% less fuel consumption, 20 to 25% less water use, and up to an 80% reduction in chemical application. The precise placement of water, fertilizer, and chemicals in ag production will result in significant positive environmental benefits. The greatest scale of benefits can be achieved when technology is used and connected technology can provide even greater benefits.<sup>12</sup>

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<sup>11</sup> See, *In the Matter of the Nebraska Public Service Commission, on its own motion, to administer the Nebraska Broadband Bridge Program in the 2022 program year*, Application No. C-5368, Order (May 10, 2022) and attachments.

<sup>12</sup> Task Force for Reviewing the Connectivity and Technology Needs of Precision Agriculture in the United States (November 10, 2021) at 67. See also *"The Environmental Benefits of Precision Agriculture in the United States,"* AEM, ASA, CropLife America, National Corn Growers Association, at 15 (2021);

Continuing drought conditions have depleted renewable water supplies in Nebraska. Water sustainability projects and solutions are imperative for Nebraska's economy and supporting such projects through grants from PRO-AG should be assigned the highest priority by the Commission.

#### **D. Match Percentage and Grant Amounts**

The Commission seeks comment regarding whether to require matching funds to be provided by a grant applicant. Reinke Manufacturing and the Telcos recommend that the Commission should not mandate a matching fund requirement for PRO-AG project applications for the following reasons. First, the Act does not require that applicants provide matching funds for grants and thus, not requiring applicants to provide matching funds is consistent with Legislative intent. Second, eliminating a match requirement will likely encourage greater participation in grant application submissions. Third, the Commission should consider at least the applications pursuant to Section 86-1404(2)(a) to relate to "high-cost areas" under the NOFO which are not subject to a match requirement.<sup>13</sup> In addition, the match requirement can otherwise be waived pursuant to Section III.B. of the NOFO.

Notwithstanding the foregoing recommendation, Reinke Manufacturing and the Telcos believe that it would be reasonable for the Commission to grant preference to PRO-AG project

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(<https://newsroom.aem.org/asset/977839/environmentalbenefitsofprecisionagriculture-2#.YBdQZR2Lc74.link>)

<sup>13</sup> Section 60102(a)(2)(G) defines high-cost area. The term "high-cost area" means an unserved area in which the cost of building out broadband service is higher, as compared with the average cost of building out broadband service in unserved areas in the United States (as determined by the Assistant Secretary, in consultation with the Commission), incorporating factors that include: (1) the remote location of the area; (2) the lack of population density of the area; (3) the unique topography of the area; (4) a high rate of poverty in the area; or (5) any other factor identified by the Assistant Secretary, in consultation with the Commission, that contributes to the higher cost of deploying broadband service in the area.

proposals in which the applicant offers to provide some percentage of matching funding. The procedures that have been implemented in the NBBP to award additional points for competitive application scoring on a sliding scale basis in return for increased match percentages provided by applicants seem reasonable for use in connection with PRO-AG grants.

The Commission also seeks comment as to whether a maximum amount of support to be awarded for any single project should be established. Reinke Manufacturing and the Telcos suggest that setting an arbitrary limit on the dollar amount of support that could be provided for any single project might have the unintended consequence of precluding larger dollar amount projects that could be particularly beneficial to the State. Therefore, Reinke Manufacturing and the Telcos recommend against the Commission establishing a maximum single project funding amount.

#### **E. Completion of Other Grant Projects**

Project applications submitted pursuant to Section 86-1404(2)(a) should be subject to the completion requirements specified in Section 86-1405 which requires an applicant to agree to complete the project within twelve months after the date on which the grant is awarded, provided that the Commission may permit one extension of up to six months upon request and for good cause shown. Project applications submitted pursuant to Section 86-1404(2)(b), (c) or (d) should be considered complete as soon as the deliverable that is the subject of the application is available for use. To satisfy any NTIA reporting standards, some statistical reporting regarding project completions may be required.

#### **F. Program Schedule**

At this time, it is unknown as to when BEAD funding will be available or the final amount of such funding that will be provided for PRO-AG grants. However, the Commission is

correct that it needs to move forward now to develop the criteria and objectives to implement the Act. If the Commission has not already done so, it should consider engaging in a discussion with the NTIA regarding the declared Legislative priorities in the Act that envision Commission funding of applications for PRO-AG projects through BEAD grants.

If and when approved by the NTIA as an acceptable use of BEAD funds, the Commission will then be ready to initiate PRO-AG and carry out the Legislative intent to prioritize connectivity and to advance precision agriculture technologies and practices. If for some reason there are obstacles to using BEAD funding to fulfill the purposes of the Act, knowing this sooner rather than later would enable the Commission to work with the Legislature during the next Legislative session to find alternative funding sources to carry out the Legislative intent as expressed in the Act.

### CONCLUSION

As stated above, Reinke Manufacturing and the Telcos appreciate the opportunity to provide these Comments in response to the Order and look forward to continuing participation in this proceeding.

Dated: September 30, 2022.

Respectfully submitted,

Reinke Manufacturing Co., Inc., The Hamilton  
Telephone Company and Nebraska Central  
Telephone Company

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