



2024-2025 Precision Agriculture Infrastructure Grant (PRO-AG) Grant Application (Docket C-5600)

Submit signed PDF applications with all attachments via email to psc.broadband@nebraska.gov by **January 17, 2025, 5:00 p.m. Central Time**.

IMPORTANT: Applicants must carefully review the PRO-AG Program Guide and PRO-AG Scoring Reference Sheet for details on application requirements and scoring. This includes but is not limited to application field descriptions, attachment content, and other necessary documentation and requirements. These resources, along with examples of allowed and disallowed costs are available on our website at <https://psc.nebraska.gov/telecommunications/2024-2025-precision-agriculture-infrastructure-grant-program-c-5600>.

If additional space is needed for any section of the application, you may include extra pages if needed, noting the application Section, Subsection, and Field Number on the attachment.

NOTE: This application is a fillable PDF and should be submitted in its original format, rather than as a printed or scanned copy. If technical difficulties or other challenges prevent you from submitting the form in this format, please contact us to discuss alternative solutions.

Subprogram Descriptions:

Connectivity Subprogram: Grants within the Connectivity Subprogram shall be used to provide adequate precision agriculture connectivity to on-farm structures and devices, including, but not limited to, tractors, combines, irrigation systems, livestock facilities, and farm offices. Adequate precision agriculture connectivity means at least 100 megabits per second download and 20 megabits per second download speeds (100/20 Mbps).

Note: Applications for the Connectivity Subprogram are permitted from Providers. Agricultural Cooperatives, Agronomists, and Agricultural Producers may apply only if partnered with a Provider.

Devices and Technology Subprogram: Grants within the Devices and Technology Subprogram shall be used to provide: (1) On-farm traceability solutions that satisfy food supply stakeholder demand, including blockchain. (2) Products that improve soil health, water management tools and sensors that facilitate judicious use of water resources, and products that promote the use of water efficiency seed technologies that lower agriculture's water, carbon, and nitrate footprint. (3) Products that use autonomous solutions in agricultural machinery, including but not limited to, grain carts, spreaders, precision drone scouting, and scouting robots.

NOTE: Each subprogram is designed to fulfill a specific purpose, and applicants can submit multiple project proposals in separate submissions. However, applicants must apply separately for each subprogram. It is important to note that each application will be assessed individually, and there will be no priority given to applicants who choose to apply for grants in both subprograms. Each application will be considered on its own merits within the subprogram in which it was filed.

Eligible Applicant Types:

- **Provider:** A wireless network provider that provides adequate precision agriculture connectivity. Proof needed: Proof of business registration and service authorization in Nebraska.
- **Agricultural Cooperatives:** A business entity that is cooperatively owned and controlled by agricultural producers, in which members' resources are pooled, and which operates for its members' benefit rather than the benefit of outside investors. Proof needed: Articles of incorporation, membership information, and proof of registration as a cooperative in Nebraska.
- **Agronomist:** A scientist who specialized in the science of farming, including but not limited to crop production, soil control, or soil management. Proof needed: Professional certifications, degrees in relevant fields, and portfolio of agriculture-related projects.
- **Agricultural Producer:** An individual or entity directly engaged in the production of agricultural products, including the cultivating, growing, and harvesting of plants and crops, including farming; breeding, raising, feeding, or housing of livestock, including ranching; forestry products; hydroponics; nursery stock; or aquaculture, and whereby 50 percent or greater of their gross income is derived from these products. Proof needed: See "Agricultural Producer Affidavit" on our website.

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Section I: Applicant Details *(Applies to all applicants)*

1. Subprogram Type: <i>(See Descriptions Above)</i>	Devices and Technology Subprogram ▼
2. Applicant name (Legal name of the farm/business applying for the grant):	Carbon Connction
3. Applicant type: <i>(See Definitions Above)</i> Proof of applicant type should be included with application as Attachment B.	Agricultural Cooperative ▼
4. Applicant street address:	416 county RD 400
4a. Applicant city:	Friend
4b. Applicant state:	Nebraska
4c. Applicant zip code:	68359
5. Applicant contact (first and last name):	Dave Nickel
6. Applicant e-mail:	carbon.connections@yahoo.com
7. Applicant phone number:	(402) 947-1476

8. Executive Summary: Provide an overview of the applicant, detailing the history, mission, and goals of the farm or business. Include specific objectives related to precision agriculture connectivity or technology adoption. we are trying to do is mainly build the soil for ag producers. We use Carbon and Soil bacteria to help hold nutrients and water in the soil, therefor reducing the need for synthetic fertilizers. If there is anything out there for new fertilizer plants, new businesses or any water and synthetic fertilizer reductions we would fit right in with them.

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Section II: Project Details *(Applies to all applicants)*

1. Project name:	Carbon Affect
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2. Precision agriculture production type:	carbon sequestration
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3. Project location description: (This should include a detailed description of the project area and location(s) to be served.)
 Area between Friend and Lincoln.

Rural and Semi-Rural Areas:

The project will specifically target rural farming communities that rely heavily on traditional fertilizers and face challenges such as limited access to modern agricultural inputs, financing, and knowledge about sustainable farming techniques. These areas are often prone to soil erosion, nutrient depletion, and water contamination from chemical fertilizers, making them key candidates for introducing eco-friendly alternatives such as bio-based fertilizers and precision agriculture techniques.

4. Project Proposal: (a) Description of the precision agriculture project you plan to implement. -AND- (b) Explanation of how the on-farm connectivity or devices and technology will be utilized to enhance productivity, efficiency, and sustainability. *Please include information showing that the applicant is prepared to move forward immediately upon award of grant.*

Variable Rate Fertilizer Application (VRA):

Utilizing the data from soil and crop sensors, Variable Rate Technology (VRT) will be implemented to adjust fertilizer application rates based on real-time needs in specific areas of the field. Fertilizer spreaders and sprayers equipped with VRT will apply nutrients more precisely, minimizing waste, reducing runoff, and enhancing nutrient uptake by crops.

5. Total Project Cost <i>(include allowable costs only):</i> <i>See project budget instructions and examples on our website.</i>	\$ 100,000.00
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6. Total Match Commitment Amount (in dollars), <i>if applicable</i> : NOTE: The project budget (attachment A) must detail any matching funds committed by source. Additionally, documentation of match commitment must be submitted as Attachment E. See "Contribution Certification Form" on our website.	\$
7. PRO-AG Grant Amount Requested:	\$ 100,000.00
8. Estimated number of locations served in project area:	50
9. Technology type(s) used in proposed project: We 15,000 to go to equipment such as lawn mowers, leveling rake, lawn areator, sprinklers, soil moisture meter, and a fertilizer spreader. The other 10,000 would be allocated to helping further the bussiness and help with marketing and new employees.	
10. Expected Start Date (<i>Should not be prior to 4/15/25</i>):	5/15/25
11. Expected completion date (<i>Should not be after 4/15/26</i>):	5/15/27
12. Timeline: Please outline the timeline for your project deployment, including clear milestones and indicators of readiness for immediate action upon grant award. Provide an explanation of any measures you have in place to address potential challenges during the implementation process.	
1. Finalizing Project Plans and Securing Resources Duration: 0 - 1 Month Activities: Finalize project scope, objectives, and detailed work plan. Confirm the grant award and establish the legal and financial framework for the project. Secure necessary partnerships (e.g., technology providers, supply chain partners, research institutions). Procure initial resources and equipment. Milestones: Project plan approved and signed off. Key partnerships secured. Funding and financial systems in place. Readiness Indicators: Signed grant agreement and confirmed project budget. Stakeholder buy-in and partnership agreements in place.	
2. Regulatory Compliance and Environmental Assessments Duration: 1 - 2 Months Activities: Submit any required regulatory filings (e.g., environmental impact assessments, permits). Ensure compliance with local and international environmental regulations for carbon capture and fertilizer production. Establish quality control and environmental standards for product development. Milestones: Permits and regulatory approvals received. Environmental and safety assessments completed. Readiness Indicators: All necessary approvals secured. Compliance with environmental standards confirmed.	
3. Team Assembly and Training Duration: 2 - 3 Months	

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13. Sustainability: Provide an explanation of how the project will be sustainable for a minimum of five years; include strategies and considerations for long-term success. Attach any evidence of sustainability to the application as Attachment F.

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Section II Project Details – Subsection A: Applies to Connectivity subprogram ONLY	
1. Farm Site Size (acres):	5,000
2. Number of Key Operational Locations:	1
3. Number of Connected On-Farm Entities:	
4. Current maximum connection speed bandwidth in project area in Mbps: <i>(Must be < 25/3 Mbps)</i>	300
5. Speeds upon completion: <i>(Must be ≥ 100/20 Mbps)</i>	
6. Do you certify that the farm site(s) to be served are currently unserved or lacking broadband Internet service at speeds of at least 25/3 Mbps download/upload?	No 
7. Do you certify that upon completion of the project, the farm site(s) served by the project will have access to minimum speeds of 100/20 Mbps for precision agriculture connectivity to on-farm structures and devices, as required by Neb. Rev. Stat. § 86-1404(2)(a)? NOTE: If the FCC National Broadband Map indicates that the location is already receiving speeds of 25/3Mbps or higher, applicants are required to submit evidence refuting the data on the broadband map. (Include as Attachment F)	Yes 
Section III: Technical Summary (Applicants must complete the relevant subsection)	
Section III: Technical Summary – Subsection A: Applies to Devices and Technology subprogram ONLY	
<p>1. Applicant's Experience: Overview of the applicant's experience and expertise in precision agriculture devices and technology solutions, specifically as related to the devices/technology included in the application. In cases where the applicant lacks direct experience, an explanation is required on how they plan to acquire the necessary skills and knowledge to operate the equipment effectively. Provide details of past successful projects or initiatives related to precision agriculture or similar technologies.</p> <p>Dave Nickel has been doing agriculture for over 30 years. He has much experience with working with local farmers around friend Nebraska.</p>	

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2. Program Details: Provide details about the proposed program involving precision agriculture devices and technology, including specifications and technical requirements. Include an explanation of how the chosen technologies align with the goals of the project.

Variable Rate Fertilizer Applicators (VRT): These devices apply fertilizers at varying rates depending on real-time data collected from soil sensors and other inputs like GPS. VRT technology enables the precise application of fertilizer based on specific soil nutrient requirements and moisture levels.

Technical Requirements: VRT systems require integration with GPS and RTK (Real-Time Kinematic) for centimeter-level accuracy in fertilizer application. They must be compatible with a variety of field equipment, such as sprayers, spreaders, and planters.

VRT allows for the efficient application of carbon-based fertilizers, reducing over-application and nutrient runoff while maximizing the benefits of the fertilizer in specific areas of the field.

This precision ensures that the fertilizer is used only where needed, reducing waste, improving environmental sustainability, and enhancing crop yields by optimizing nutrient delivery.

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3. Expected Useful Life: The expected useful life of devices/technology included in the request for funding. Please identify any components which may require more frequent repair or replacement.

Fertilizer Spreaders/Injectors:

Expected Useful Life: 8 – 15 years for high-quality equipment.

Components Requiring Frequent Repair/Replacement: Conveyor belts, nozzles, and mechanical parts (e.g., motors, pumps, or hoses) may wear out over time and need replacement every 3 – 5 years.

Precision Fertilizer Application Systems: These systems ensure that the right amount of fertilizer is applied in the right location and time.

Expected Useful Life: 5 – 10 years.

Components Requiring Frequent Maintenance: Sensors, flow meters, and electronic control systems may require calibration and servicing every 1 – 2 years. Mechanical components, such as pumps and valves, may need servicing or replacement every 2 – 4 years.

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4. Maintenance Plan: Applicants should explain how the devices/technology funded with PRO-AG grant funds will be maintained for at least five years following project completion.

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Section III: Technical Summary – Subsection B: *Applies to Connectivity subprogram ONLY*

1. Applicant's Experience: Describe the applicant's experience providing precision agriculture on-farm connectivity solutions including their technical capability to meet the requirement to provide a minimum 100/20 Mbps. Include details of past successful projects or initiatives related to precision agriculture connectivity or similar technologies. Specifically, whether they currently provide broadband at the minimum 100Mbps/20Mbps speeds, and if so, where.

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2. Innovation and Technology: Provide a detailed description of the proposed network architecture including the specific technologies and strategies to provide service, a list of the on-farm structures and devices to be connected by project, placement of access points, data collection devices, and other key elements.

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3. Scalability Evaluation: Explain how the solution ensures reliable and scalable connectivity. This could include a plan for network expansion along with a description of strategies for preserving performance with increased device density.

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4. Maintenance Plan: Include details regarding the expected useful life of the facilities to be built. Include a statement as to the technological components used, and, if applicable, which components may require more frequent repair or replacement. Applicants should explain how the project will be maintained throughout the useful life of the facilities along with the applicant's plans to meet the minimum speed requirements in place for the PRO-AG grant for a minimum of five years following completion.

5. Latency: Include the expected latency of the network (in ms) upon completion. Explain how the expected latency aligns with the needs of your application. How does this latency impact the ability to perform real-time operations or data transfers in the context of precision agriculture?

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Section IV: Legal (*Applicants must complete the relevant subsection*)

Section IV: Legal – Subsection A: *Applies to Devices and Technology subprogram ONLY*

1. Provide a detailed outline of the pertinent qualifications and certifications essential for the proposed devices/technology. Explain whether the applicant currently holds the necessary qualifications and certifications, including any expiration dates. If not currently secured, define the planned steps and timelines for acquiring any essential qualifications and certifications.

1. Regulatory Certifications

CE Marking (EU): Confirms the device meets European safety and environmental standards.

Current Status: Not yet secured; the device will need to pass required tests.

UL Certification (US): Ensures the device meets safety standards, especially for electrical products.

Current Status: It still needs to be secured; the product needs testing for safety.

FCC Certification (US): Required for devices with radio frequencies to avoid interference with communications.

Current Status: Not yet secured; requires EMC (electromagnetic compatibility) testing.

RoHS Compliance: Ensures the device is free from harmful substances (like lead and mercury).

Current Status: Secured; materials are within legal limits.

2. Industry-Specific Certifications

ISO 9001: Quality management certification to show consistent product quality.

Current Status: Secured; follows best practices for quality control.

ISO 13485 (Medical Devices): Needed for devices in the medical field to meet strict quality standards.

Current Status: Not yet secured; steps to start the process are underway.

IEC 60601 (Medical Electrical Equipment): Ensures the device meets safety standards for medical electrical devices.

Current Status: Not yet secured; testing for electrical safety is required.

3. Testing and Environmental Certifications

Product Testing: Ensures the device works properly and safely under normal conditions.

Current Status: Pending; tests are in progress.

Environmental Testing (e.g., IP Rating): Tests for water and dust resistance, and ensures durability.

Current Status: Pending; environmental tests are being scheduled.

4. Steps to Obtain Missing Certifications

ISO 13485:

Timeline: 6-12 months.

Steps: Document processes, pass audits, and get certified.

UL Certification:

Timeline: 3-6 months.

Steps: Test the product for safety and submit for certification.

FCC Certification:

Timeline: 2-4 months.

Steps: Test for electromagnetic compatibility and submit reports.

IEC 60601:

Timeline: 6-9 months.

Steps: Test for electrical safety, create required reports, and get certified

15. Detail the applicant's strategies and commitments for sustaining the qualifications and certifications over the five-year post-deployment period.

Regular Audits: Conduct annual internal and external audits to ensure compliance.

Action: Track audits and fix issues quickly.

Monitor Performance: Continuously track product safety and performance.

Action: Handle customer feedback and report safety data.

Update Documentation: Keep all product documents up to date and renew certifications as needed.

Action: Track expiration dates and update paperwork.

Employee Training: Regularly train employees on new standards.

Action: Offer yearly training and stay informed on regulations.

Ongoing Testing: Periodically test the device to ensure compliance.

Action: Allocate time for product testing and improvements.

Record Keeping: Maintain proper documentation of changes and updates.

Action: Securely store and organize all records.

Regulatory Communication: Stay in touch with authorities to ensure ongoing compliance.

Action: Assign a team to manage regulatory relationships.

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2. Detail the applicant's strategies and commitments for sustaining the qualifications and certifications over the five-year post-deployment period.

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Section IV: Legal – Subsection B: *Applies to Connectivity subprogram ONLY*

1. Applicant's Nebraska ETC Status:

2. Legal Representative Name (Must be licensed and in good standing to practice law in Nebraska or admitted pro hac vice)

3. Legal Representative Email:

4. Legal Representative Phone:

5. A description of any risk factors or legal challenges that must be addressed prior to or during the project in question (examples include local zoning, permitting, access to rights-of-way, etc.), as well as a plan for mitigation. Additionally, explain any engagement measures with proposed project location(s) or impacted communities.

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6. Has the applicant received letter(s) of support or approval from the owner of each farm site included in the grant application? Yes/No.
NOTE: Letters of support must be attached to the application as attachment G and should clearly express the owner's consent for the connectivity project and their understanding of the proposed on-farm connectivity services and rates charged for service.

Yes



Section V: Project Impact (Applies to all applicants)

1. Demonstrated Substantial Economic Benefit: Describe the significant economic impact your project will have on rural Nebraska. What tangible benefits can you quantify, such as job creation and income generation? Please provide illustrative examples.

The significant impact that carbon connections would provide is creating a safer alternative fertilizer. Over time, the use of carbon-based fertilizer could reduce input costs, such as the need for additional chemical fertilizers or pesticides. Improved soil health can lead to lower water usage, decreased reliance on irrigation, and reduced costs for other crop management services.

Illustrative Example: A Nebraska farm using this fertilizer could save approximately \$25 - \$50 per acre annually on water and input costs. For a 1,000-acre farm, that would result in \$25,000 - \$50,000 in annual savings.

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2. Continuing or Increasing Economic and Technological Impacts: How will your project provide ongoing economic and technological benefits over time? Outline the strategies you will implement to ensure sustained growth and progress beyond the initial implementation phase.

To ensure that we have comfortable growth and long-term economic and technological benefits from a project such as carbon connections, it is essential to implement different strategies to support economic growth and innovation. Some strategies can be partnerships with the industry. This allows you to establish long-term partnerships with industries that produce high-level Co2 products like oil, soil, gas, etc. Another can be job creation and local economic growth. This can allow you to develop local training programs to create jobs in emerging green technologies. This will boost the local economy and create a skilled workforce that can support the development of the project.

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3. Water Conservation Focus: If applicable, please explain in what ways does your project prioritize water conservation? Explain the innovative strategies, technologies, or practices you plan to implement to promote sustainable water management and mitigate water usage.

Water conservation is an essential component of supportable strategies for carbon connections. However, as the world faces increasing water and environmental challenges, implementing advanced technologies, and smart water-adopting practices, can ensure minimal water usage while still achieving effective carbon capture and storage. A couple of strategies to use are rainwater collection harvesting. This reduces the dependence on freshwater resources and makes use of naturally available resources. Another strategy can be water recycling and reuse. When capturing water from condensate and cooling systems this can minimize water usage while maintaining the efficiency of carbon capture.

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Section VI: Financial Projections *(Applies to all applicants)*

1. Provide comprehensive financial projections for the project. This should include both short-term (1-3 years) and long-term (4+ years) forecasts, detailing anticipated costs, revenues, and key financial health indicators such as net cash flow and profitability ratios. The projections should demonstrate a realistic estimate of income and expenses and the overall financial impact of the project.

When working with carbon connections it can get pretty pricey. Although they do focus on primarily lawn care, they focus on different chemicals of their own. They also want better machinery for bigger lawns and acres they people own.

(Short term 1-3 years)

Maintenance/Equipment Costs 1-2 million a year

Water management costs \$500,000-1 million

Humic acid \$300,000

Marketing/Public \$100,000-\$200,000

Total Capital Expenditure in Year 1-3: \$5- 7 million

(Long-term 4+ years)

Technology upgrades \$3-5 million

Maintenance/Infrastructure\$5-7 million

Labor/Operational costs \$3-9 million

Water Management costs \$1-3 million

Total in Year 4+: \$15-20 million

(Revenue Streams 1-3 years)

Carbon Credits/Offsets (Sales): \$1-2 million/year

Government Subsidies/Grants: \$2-5 million/year

Partnerships & Industrial Contracts: \$2-10 million/year

Technology Licensing or IP Sales: \$1-2 million/year

Total Revenue in Year 1-3: \$4-15 million/year

(Profitability Ratio)

-15% to -5%

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Section VII: Cost Benefit Analysis *(Applies to all applicants)*

1. Provide a detailed cost-benefit analysis for the project. This analysis should quantify the expected return on investment (ROI), outlining the financial impact of the project in both the short-term (1-3 years) and long-term (4+ years). The analysis should clearly demonstrate the financial returns of the investment.

Short-Term ROI (Year 1-3)

Year 1-3 ROI = Negative (due to high initial capital expenditures)

Long-Term ROI (Year 4+)

In the long term, the project will begin to generate returns as it scales, and operational costs stabilize. ROI will be calculated like this:

$$\text{ROI} = \frac{\text{Total Revenue} - \text{Total Costs}}{\text{Total Costs}} \times 100$$
$$\text{ROI} = \frac{\{\{\text{Total Revenue}\}\} - \{\{\text{Total Costs}\}\}}{\{\{\text{Total Costs}\}\}} \times 100$$

$$\text{ROI} = \frac{\text{Total Revenue} - \text{Total Costs}}{\text{Total Costs}} \times 100$$

If the project \$15 million in annual revenue and \$10 million in operational costs from Year 4 onward:

Total Costs (Year 4+): \$5 million expenditure + \$10 million/year

Total Revenue (Year 4+): \$10 million

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Section VIII: Monitoring and Evaluation *(Applies to all applicants)*

1. Clearly list the major milestones that will be used to track the progress of your project. This should include a timeline for deployment of connectivity OR devices and technology. Each milestone should include an expected completion date. Examples: (1) Installation of connectivity infrastructure by [insert date]. (2) Deployment of smart sensors by [insert date]. (3) Full project implementation by [insert date].

Milestone 1: Finalization of Project Design and Technology Selection

Expected Completion Date: End of 2025

Description: Finishing the carbon capture technology to be used identifying storage or utilization sites, and completing the system for both capture and storage infrastructure.

Milestone 2: Selection of Pilot Farms for Carbon Solutions Implementation

Expected Completion Date: March, 2026

Description: Identify and select the first set of farms from small to medium-sized that will participate in the pilot phase, focusing on diverse agricultural systems cropping, livestock, mixed farming.

Milestone 3: Installation of Smart Sensors for Real-Time Carbon and Soil Monitoring

Expected Completion Date: end of 2026

Description: Make smart sensors on pilot farms to monitor soil carbon levels, CO2 emissions, soil moisture, and temperature, enabling data-driven decision-making.

Milestone 4: Full Project Implementation and Operational Capacity

Expected Completion Date: Beginning of 2027

Description: Achieve full operational capacity for carbon segregation and reduction technologies, with a network of connected farms using smart technologies, carbon credit systems, and renewable energy.

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2. Identify the specific Key Performance Indicators (KPIs) that will be used to measure the success of the project following implementation. Each KPI should be measurable and aligned with the project's objectives. Examples: (1) [X]% increase in crop yield by [insert date]. (2) [X]% reduction in water usage within [insert time frame]. (3) [X] number of devices connected to the system by [insert date]. (4) [X]% improvement in farm operational efficiency by [insert date].

KPI 1: Increase in Soil Organic Carbon (SOC) Levels

Target: Increase SOC by per 10% hectare by 2025

Description: Measure the improvement in soil and carbon storage capacity through sustainable farming practices, organic fertilization.

Objective: To monitor soil health improvements and carbon segregation effectiveness.

Measurement Tool: Soil sampling, carbon analysis, and soil health monitoring tools.

KPI 2: Smart Sensor Deployment (Number of Sensors Installed)

Target: Deploy 20 smart sensors across pilot farms by 2026

Description: Track the number of smart sensors installed to monitor soil moisture, temperature, CO2 levels, and other environmental factors.

Objective: To monitor the real-time performance of carbon management practices and optimize resource use.

Measurement Tool: Sensor installation reports and real-time data analytics platform.

KPI 3: Renewable Energy System Deployment (Percentage of Farms with Energy Systems)

Target: Install renewable energy systems on 20% of pilot farms by 2027

Description: Measure the number of pilot farms that have transitioned to solar or wind energy to reduce reliance on fossil fuels.

Objective: To reduce farm operational emissions and increase renewable energy adoption.

Measurement Tool: System installation records and energy consumption data.

KPI 13: Creation of Local Jobs and Economic Opportunities

Target: Create 4 new local jobs related to the project by 2028

Description: Track the number of new jobs created in the community as a result of the project, including the people related to the installation and maintenance of technologies, training programs, and carbon management.

Objective: To measure the social and economic benefits of the project in terms of job creation and economic opportunity for rural communities.

Measurement Tool: Job creation reports, employment records, and community feedback.

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3. Please explain the plan for monitoring and evaluating the success of the precision agriculture project. Include a detailed explanation of how Key Performance Indicators (KPIs) included in Section VII, field 2 above will be tracked and monitored throughout the project. Include specific metrics, tools, and timelines that will be used to track progress and measure outcomes.

KPI 2: Smart Sensor Deployment (Number of Sensors Installed)

Target: Deploy 20 smart sensors across pilot farms by 2026

Description: Track the number of smart sensors installed to monitor soil moisture, temperature, CO2 levels, and other environmental factors.

Objective: To monitor the real-time performance of carbon management practices and optimize resource use.

Measurement Tool: Sensor installation reports and real-time data analytics platform.

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Attach/Include (see Program Guide for details):

ALL Applicants Must Include:

- Attachment A. Project Budget/Documentation
- Attachment B. Eligible Entity Documentation
- Attachment C. Cybersecurity
- Attachment D. DJI Attestation
- Attachment E. Match Documentation
- Attachment F. Other Supporting documentation (if applicable)

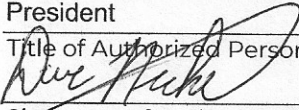
Connectivity Subprogram Applicants Must Also Include:

- Attachment G. Legal
- Attachment H. Technical
- Attachment I. Financial Statements
- Attachment J. Rate Comparability
- Attachment K. Shapefiles
- Attachment L. Project Diagram
- Attachment M. List of Key Operational Locations

APPLICANT CERTIFICATION:

I, the undersigned Carbon Conncetion representing Dave Nickel, hereby certify the eligibility of our entity/project for the Precision Agriculture Grant (PRO-AG). By signing this statement, I confirm the legal name, contact details, size, and location of the farm site(s), along with our eligibility type as a Agricultural Cooperative. Attached are supporting documents validating our eligibility, and I declare adherence to all requirements outlined in Precision Agriculture Connectivity Infrastructure Grant Act (Neb. Rev. Stat. § 86-1401 et seq.) & Commission Order C-5600. I certify that all information we have submitted on this application and its supporting documents is true and correct. I certify that we are not currently using, nor will we use, prohibited communications equipment and services developed by organizations on the Federal Communications Commission's Covered List pursuant to 47 U.S.C. § 1601. I understand that the submission of any false information or failure to comply with Commission requirements may result in penalties towards me and/or my organization.

Your signature confirms the accuracy and authenticity of the provided information. It will be considered binding for all purposes related to this application and any subsequent agreements or certifications.

<u>Dave Nickel</u>	<u>12/1/24</u>
Printed Name of Authorized Person	Date
<u>President</u>	
Title of Authorized Person	
<u></u>	<u>1-15-25</u>
Signature of Authorized Person	

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