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May 18 2023

North Dakota Industrial Commission
Clean Sustainable Energy Program
State Capitol - Fourteenth Floor
600 East Boulevard, Bismarck, North Dakota 58505

Dear Sir/Madam,

Enclosed is the application and supporting documents for Bushel Inc.'s application to participate in a grant proposal with the Clean Sustainable Energy Authority.

Bushel is applying for a grant to develop a technology for increasing the scale and use of differentiated commodities in the renewable fuels sector. We are excited about the prospect of partnering with CSEA on this project to help materially impact production agriculture and carbon market developments.

Sincerely,



Jake Joraanstad
CEO
Bushel Inc.

Luke Swenson

Luke Swenson
Bushel Inc.

Clean Sustainable Energy Authority

North Dakota Industrial Commission

Application

Project Title: Bushel Farm Traceability Dashboard

Applicant: Bushel Inc.

Date of Application: May 18, 2023

Amount of Request

Grant: \$5,529,362

Loan:

Total Amount of Proposed Project:

\$12,265,250

Duration of Project: 36 Months

Point of Contact (POC): Luke Swenson

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ABSTRACT

Objective:

Bushel is proposing the creation of the Bushel Farm Traceability Dashboard to aggregate all aspects of farming activities to help increase adoption and production of lower carbon renewable energies. Bushel will reduce the carbon footprint of agriculture and the renewable energy sector by using Bushel's extensive network, expertise, and software platforms to enable farmers a simple path to creating differentiated, lower carbon (more sustainable) commodities.

This will be done by creating more robust integrations with existing Bushel software solutions, which are currently in use in approximately 45% of North American grain receiving facilities. Additionally, growers use Bushel software to oversee more than 100 million acres of mapped cropland today. Removing the complexity of gathering, standardizing, cleaning, and reporting on the many aspects of different lower carbon projects is one of the biggest challenges governments, states, companies, and individuals face. Bushel is uniquely positioned to tackle this in a fashion that will take others years to attempt to replicate and Bushel will be commercially available in 36 months across the country.

Expected Results:

This project will have significant environmental and economic impacts in North Dakota and beyond.

Environmental Impact: Within five years Bushel anticipates software adoption by renewable energy refiners/processors will be >70%, up from +/-40% of ethanol and <10% of soybean crush today. The increase in adoption will feed Bushel's goal of over 7 million tons of carbon being sequestered annually by 2028, five years after Bushel starts development. This reflects 6% of US corn and soybean acres adopting new sustainable practices. Additionally, Bushel's project partners forecast 25-50% of renewable fuel production requiring lower carbon inputs by 2030, which would significantly exceed Bushel's modeled impact. In addition, the Bushel Farm Traceability Dashboard will be applicable to all 320 million acres of primary cropland in America.

Economic Impact: This project will benefit everyone from the farmers who grow commodities to ethanol and renewable diesel processors/refiners, to commercial grain entities, consumers, and the state of North Dakota. Conservative, annual revenue projections are upwards of \$25 million for North Dakota farmers and \$560 million nationwide. Revenues for processors and refiners will reflect similar results.

Duration: 36 Months

Total Project Cost: \$12,265,260

Participants:

- Bushel Inc.
- Red Trail Energy
- North Dakota Soybean Processors
- ANEW Climate

PROJECT DESCRIPTION

Objectives:

What if North Dakota capitalized on the private business foundation of Bushel's digital data collection platform to unlock scalability for lowering carbon and environmental impacts for the sustainable energy and production agriculture industries in North Dakota and beyond? Bushel, Inc., a North Dakota-based company, has amassed potentially the largest digital grain and field level dataset in the U.S. over the past six years.

With its secure digital reach, infrastructure, and widespread user adoption, Bushel is uniquely positioned to provide the technology infrastructure necessary for sustainable agriculture production to scale in North Dakota and beyond. By partnering with the Clean Sustainable Energy Authority (CSEA), Bushel aims to deploy its data collection platform to empower farmers to prove out, verify, and demonstrate traceable, sustainable practices that can be utilized to produce differentiated grains for renewable energy refiners and processors.

Bushel will develop the “Bushel Farm Traceability Dashboard” to change the landscape of low carbon agricultural and renewable energy production. This dashboard will be built into the already existing *Bushel Farm* farm management software platform.

Historically, the procurement, tracking, and profitability of sustainably produced inputs have posed significant challenges for renewable energy refiners as farmers aren't properly equipped or incentivized to adopt sustainable, lower emissions practices. Tracking field level information is difficult for the farmer. Additionally, providing a program that requires a high level of administration is taxing on the grain buyer. Bushel's solution helps both parties connect with the right data in real time. Efficient administration of data collection, aggregation, standardization, and distribution will provide adoptable, premium solutions for sustainably produced energy products, and help reduce agricultural and renewable energy emissions. To effectively monetize changes in inputs for sustainable and renewable energies, as well as sustainable foods, we must address the monetization and existing heavy burden of change management aspects for farmers.

The United States and global economy are driving demand for sustainable energy. They are being led by both states and industry with the likes of California driving the narrative, while the federal government tries to catch up with plans around how to help carbon markets succeed. We are rapidly approaching a crossroads where hundreds of millions of tons of carbon reduction will be necessary each year, yet the supply is woefully insufficient to meet those needs. The agriculture industry, more than any other industry in the developed world, is well positioned to help reduce carbon footprints and effectively market and monetize the results of collective sustainability efforts.

To compound the situation, many companies, cities, regions, and individuals have made pledges to reduce their respective carbon footprints in the coming years. Some aim to achieve this by 2025, while

many more have set targets for 2030. Shockingly, more than two-thirds of the largest 2,000 publicly traded companies that made such pledges have no roadmap to reduce their carbon footprint.

This presents a significant market opportunity for new products and revenue generation, unlike anything seen before in agriculture or energy production. Just as the shale revolution reshaped fossil energy production in the US, the carbon and sustainability needs of our economy are now reshaping agriculture. This opportunity allows both industries to collaborate and achieve rapid scale adoption in a way that benefits them mutually.

Bushel's proposal seeks to bridge the gaps in the supply chain, facilitating faster and more efficient market growth to meet the increasing demand for sustainably sourced grains. By doing so, we will enhance the capacity of renewable energy processors and refiners to produce premium sustainable energies that can meet the world's needs while drastically reducing the carbon footprint of both renewable energy and agriculture. We will do this from a position of helping farmers be incentivized for their change in practice, rather than legislative action. This is how the industry can shift to meet the carbon sequestration needs coming from corporations and states in the coming years.

By combining Bushel's existing software platforms with further development, the company envisions enabling renewable energy refiners to create premium sustainable energy solutions using more sustainable agricultural practices while increasing revenues throughout the supply chain. Currently, Bushel has connected approximately 2,400 grain elevator/processor locations through its platform, engaging over 100,000 farmers, and mapping more than 110 million acres of fields. In our home state of North Dakota we have over 100 elevator/processor locations using Bushel with their farmers and over 4,000 more farmers specifically using Bushel Farm. Over the past decade, Bushel has invested over \$100 million in its products, with \$37 million dedicated solely to the development of the Bushel Farm platform, which will specifically house the Bushel Farm Traceability Dashboard.

Leveraging its North Dakota headquarters and existing network, Bushel aims to create a user-friendly, permission-enabled, and secure digital interface within the next 24 months. Bushel will enable farmers to confidently track and market differentiated commodities to existing and future renewable energy refiners. The commercialization effort will coincide with the development process, utilizing Bushel's network, dedicated staff, and industry representatives to drive adoption and awareness of the market potential for premium, lower carbon renewable energy products. This project will make a significant impact on North Dakota in the near term and will expand to all American farmers.

One of the challenges in monitoring and reporting greenhouse gas emissions (GHGs) and carbon sequestration lies in the need to collect and manage data from as many as 10-20 disparate systems. These data sources include proof of yield reports, crop inputs, field-level activities, soil samples, storage activity, and more. Bushel recognizes the significance of developing a streamlined and comprehensive sign-up/management system that handles this information. If chosen to advance this pivotal technology within the state and the country, Bushel is committed to pursuing the project alongside the CSEA and other projects. Given Bushel's unique position at the intersection of data, technology, and sustainability, the company is best suited to tackle the complexities of this opportunity.

Bushel possesses a unique set of capabilities that positions us as a leading force to address the immense challenges associated with carbon reduction. Our extensive reach and expertise enable us to undertake a project of this scale with confidence. The economic impact of our Dashboard will be just as significant as the environmental impacts. From farmers to refiners, the change in ease of adoption and monetization will have far reaching implications to renewable energies and reducing the carbon footprint of energy and agriculture in North Dakota.

Methodology:

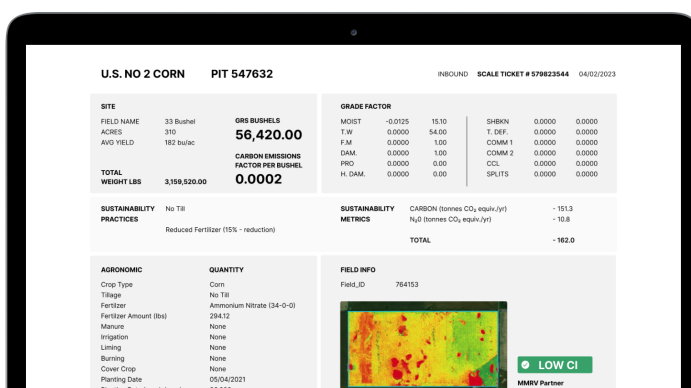
The value of this dashboard is that unlike many sustainability projects that point to a single methodology, Bushel is creating technology that can house, facilitate and support any existing and future methodology. This means the best projects available today, and the highest quality, scalable methodologies of the future can seamlessly scale on Bushel’s network. That is something exclusive to Bushel and its reach across American agriculture. Think of Bushel as the interstate upon which the sustainability data will reside. Bushel can be the catalyst for adoption in a location where the farmers and industry trust their data to reside, and be used to create value.

Starting from the farm gate, Bushel is able to support the adoption and success of all existing and future methodologies, achieving scale and impact throughout the entire supply chain. This is unseen in American agriculture today. There is no other company that has the field level reach, grain accounting data points, and farmer adoption of digital tools. Bushel's technology is designed to enable market participants to adopt and scale sustainable practices, both today and in the future with significant ease compared to older existing methodologies/projects. For baseline sake of argument, we have utilized a simple methodology from the University of Nebraska Lincoln focusing on cover crops and no-till. As a baseline for result assumptions in this proposal, the programs integrated into our flexible platform will likely vary by region. Different regions may adopt diverse practices such as low carbon fertilizer, no till, strip till, cell grazing, cover crops, water management, double cropping, natural fertilizer, and more.

The proliferation of sustainability programs in the US has led to a heavy reliance on multiple metrics that are present in many programs, ranging from field-level data on tillage and fertilizer practices to logistical metrics such as the distance grain travels before processing. However, the fragmented and incomplete nature of available data often hinders the creation of new markets. This is where Bushel is unique: Bushel has brought together disparate datasets that have the ability to unlock new revenue for both farmers and grain facilities/processors.

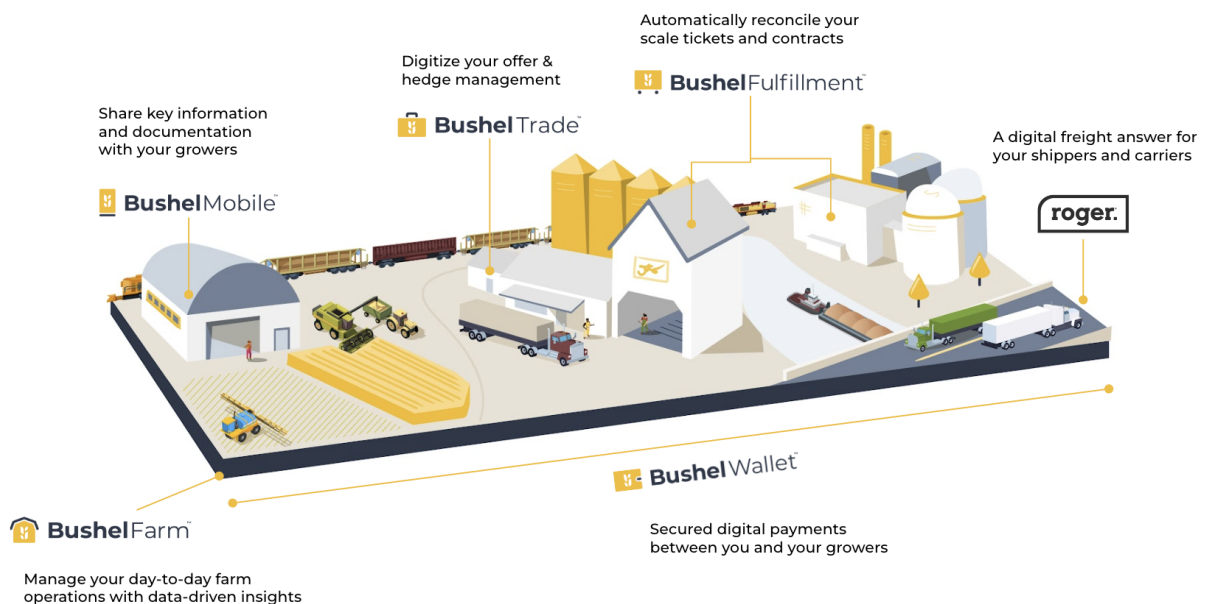
To address this, issue Bushels brings together commercial industry activity and all of the farmer's field activities. This creates a “super scale ticket” for the grain buyers our farmers sell to, enabling them to

confidently know they have bought a true, low carbon differentiated commodity. Our rapid growth has made Bushel one of the largest



repositories of farmer field activity data globally, combined with all delivery, contract, and quality metrics. While our connections were initially established to streamline transactional business with elevators, they have inadvertently created a pipeline that enables the true marketability of sustainably sourced agricultural products and traceability.

Although sustainability reporting was not our original plan, Bushel is now just a few steps away from being able to handle all the activities necessary to validate and transfer all relevant data for sustainable practices from the farmer to the end of the supply chain. The availability of our datasets can support existing sustainability initiatives within the industry and facilitate the easier creation and scalability of future low carbon energy products. We can further assist by leveraging our extensive network in the grain space to facilitate partnerships between end-users and the industry in developing future product methodologies.



In addition to benefiting the renewable energy sector, the Bushel Farm Traceability Dashboard can also aid other industries such as food, livestock, low carbon coal power, etc. With new North Dakota legislation allowing large-scale livestock production in North Dakota, our platform can help monitor power usage and emissions in those facilities. This would enable a dairy to accurately source low carbon corn, DDGs, and alfalfa, and potentially consume low carbon captured coal power off of Minnkota Power Cooperative’s transmission from Project Tundra. Resulting in some of the lowest carbon footprint dairy products accessible in the world – and it works for all confinement protein sources.

Through a strategic alliance with Anew Climate and other key stakeholders in the sustainability markets, Bushel is uniquely positioned to drive the creation, adoption, and success of new projects more effectively than previously possible due to the existing fragmented systems in place. By leveraging our

integrated platform, Bushel has the capacity to enable the implementation of innovative methodologies from various market participants, thereby fostering greater adoption of sustainable practices.

What sets us apart is the significant support we have garnered from companies like Anew that have traded over 600 million tons of emissions credits individually. This substantial backing underscores our commitment to facilitating the adoption of current and future methodologies, ensuring a comprehensive approach to sustainability.

With Bushel as the catalyst, revolutionizing the sustainability landscape and empowering diverse stakeholders, we are paving the way for a more cohesive and impactful future. The Bushel Farm Traceability Dashboard holds immense potential to transform multiple sectors, enabling sustainable practices, driving market development, and generating positive environmental impact. By embracing this innovative solution, we can usher in a new era of sustainability, creating a more resilient and prosperous world for generations to come.

Anticipated Results:

In 2020, the agriculture sector alone accounted for approximately 670 million metric tons of carbon dioxide, representing 11.2% of total US emissions. Transportation contributed 27.3%, while industry accounted for 30.3% of emissions. With the Traceability Dashboard operating at scale, the agriculture sector has the potential to make significant changes to this distribution by incentivizing practice changes and supporting renewable fuels initiatives. Bushel's goal is to reduce agriculture's footprint faster than any other segment of our economy.

When looking at the net outcome environmentally, we have to pick a baseline methodology for our dashboard to compare against. Success means the adoption of any sustainable practice. Bushel will specifically reference The Carbon Farming analysis conducted by the University of Nebraska Lincoln which has shown that implementing practices such as no-till farming and cover crops can result in an average sequestration benefit of 0.76 metric tons per acre per year. Although these practices may not be universally applicable to every field or farmer, there are various opportunities to make sustainable adjustments in different regions of North Dakota and the entire country. If you extrapolate broad findings like this across the breadth of the US you can see the potential benefits. If region specific practices resulted in that same level of sequestration, you could see upwards of 200 million tons of carbon sequestration per year across the approximately 320 million acres of primary grains in the US. Flexible, scalable technology such as our proposed Traceability Dashboard enable the market to achieve reductions of this magnitude, and allow agriculture to make some of the largest and quickest adjustments to meet future carbon requirements. Bushel Farm's Traceability Dashboard will enable farmers to better realize the returns on their practice changes. The need for a solution that accounts for all crops, not just renewable energy inputs, means that even during off rotation years those farmers can continue to reap the benefits of their sustainable activities.

Consequently, this will enable North Dakota to continue its progress toward becoming the first carbon-neutral state in the country. Our goal is to have 10 million acres administering new sustainable practices by 2028, sequestering (or reducing) approximately 7.6 million tons of carbon per year. This can be accomplished in North Dakota alone with a strong launch and market support.

From a financial perspective, the opportunities are equally significant. Our approach is to create scalability at the farm gate and extend that to consumers led by the opportunity of market value monetization. Based on CARB's data, the potential value for lower carbon corn/beans at the farm gate ranges from 10 to 40 cents per bushel. If the US renewable industry were to scale to using 50% low carbon differentiated grains by 2030, the revenue increase for farmers would exceed \$25 million in North Dakota and \$560 million across the US annually. These estimates assume a conservative premium of only 15 cents per bushel for farmers. The actual premium to meet the demand when 2030 corporate obligations arrive is likely to be much stronger.

The net result of Bushel Farm's Traceability Dashboard is that renewable energy processors will have a direct, digital pathway to access the necessary data for procuring differentiated grains, enabling the creation of lower carbon fuel products at renewable energy refining facilities on a large scale. This data will empower corn/soybean processors and grain buyers to confidently offer premium prices for sustainably sourced commodities, thus increasing supply and options for consumers. This project holds significant potential for farmers not only in the US but also across the world.

Facilities:

Development for this project will be led by Bushel Inc., headquartered in Fargo, North Dakota. While our partners and supporters span across the country, we believe it is essential to begin piloting our tools with companies based in North Dakota. Our initial focus will be on demonstrating the value of our solutions in multiple sectors, starting with ethanol and renewable processors within our state.

We are thrilled to have the support and participation of **Red Trail Energy**, a leading sustainable energy producer. They have expressed their commitment to pilot our dashboard and are eager to potentially become the first carbon-negative ethanol facility in the country. Their letter of support is attached, highlighting their enthusiasm for our project.

Additionally, **North Dakota Soybean Processors** has agreed to pilot the Bushel Farm Traceability Dashboard. NDSP will own and operate a new soybean processing plant expected to begin operations in Summer 2024. NDSP has also agreed to provide a letter of support for our project and the value it would bring.

From an energy and food ingredient perspective, **The Arthur Companies** has already stepped forward and expressed their interest. Their milling venture in the Pacific Northwest is already experiencing

significantly monetized demand for the solution that Bushel is offering within this project. Also being a future supplier to NDSP, they see the synergies and support for each other.

Through collaboration with partners like **Anew Climate**, Bushel can leverage its consolidated data set to uncover and develop new carbon methodologies and projects that were previously impossible due to the challenges of aggregating essential datasets. This partnership enables the acceleration of market evolution, surpassing the pace witnessed thus far. By combining our forces, we can catalyze the emergence of innovative initiatives and propel the carbon space towards unprecedented growth and impact.

Dr. Dave Ripplinger from North Dakota State University has been helpful in an advisory capacity, and will continue to assist as we progress with this project and encounter many challenges and opportunities as the emissions and renewable fuels markets evolve in the coming years.

We are grateful for the enthusiastic response from these organizations, all of whom eagerly embraced the opportunity to participate in our project. Their support and involvement will be invaluable as we advance and demonstrate the effectiveness of our solutions. With strong domestic investment in ethanol, bean processing, and refining, North Dakota has top tier facilities, infrastructure, and intellectual capital for a project such as this.

Resources:

The value added by Bushel's existing network is rooted in its expansive reach, boasting over 2,500 locations nationwide that serve as direct farmgate buyers. Moreover, our products foster direct interactions with over 100,000 farmers. This network encompasses several prominent grain buying entities in the country, including many within the top 20 grain traders, offering valuable testing opportunities for all aspects of our Traceability Dashboard and future applications.

In addition to our project partners, pilots, and advisors, we will engage various other parties to bolster our project. Our core development team will be based in Fargo, benefiting from the comprehensive expertise of Bushel's development teams. To meet our staffing requirements, we will combine new hires with specialists from other areas of Bushel as necessary. Once the project is underway, we will assemble a dedicated team in collaboration with our existing Bushel Farm team.

Furthermore, we have established relationships with retail agricultural companies, land grant institutions, researchers, economists, lobbyists, regulators, and more. These connections will play a pivotal role as we navigate the different phases of the project, offering support, expertise, and guidance.

We are excited to have Anew Climate as a partner as the largest developer of environmental attribute projects in North America. Their storied history going back decades will be helpful as our dashboard takes shape. With the ability to develop new projects as industry and consumer demands change and emerge, they will help increase adoption even more rapidly when commercialization occurs.

Some of our partners may take on specific tasks or contribute to certain project components, utilizing our shared funding to develop elements that may not fall directly within Bushel's purview or to facilitate the commercialization of products and methodologies moving forward. These partnerships may involve:

- Cross-industry committees for research, input, and oversight on our development.
- Collaborative efforts with Land Grant Institutions to create and support methodologies for potential differentiated commodity products.
- Collaboration with Market/MMRV/Trading companies to develop and commercialize new methodologies using the foundation of Bushel's Traceability Dashboard, overcoming previous challenges in commercialization.
- An industry advisory committee as our Traceability Dashboard comes to fruition.

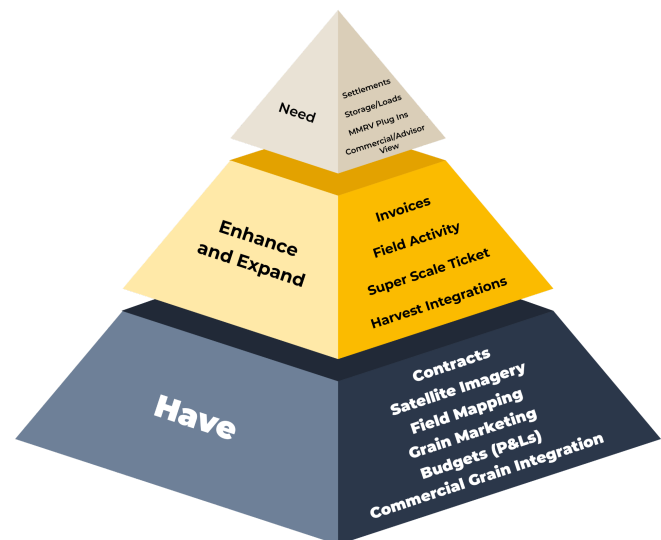
Techniques to Be Used, Their Availability, and Capability:

From a development perspective, our team already comprises nearly 100 full-time software developers who have been instrumental in building the technologies that have brought us to where we are today. For our sustainability push, we will expand this team while maintaining the same commitment to quality software development that our customers have come to expect. As a secure software company dealing with data, money movement, and privileged confidential information, we adhere to SOC 2 compliance standards, ensuring that every aspect of this project, from design to development to security, is held to the highest standards.

We will leverage Bushel's significant investment in our two core products directly. The APIs between the commercial entities and farmers will play a crucial role in every step of this project. Bushel Farm, our farmer-facing farm management software, will serve as the host platform for the Traceability Dashboard. Developing the Traceability Dashboard will require a diverse range of developers, including front-end developers, UX/UI experts, graphic designers, back-end coders, Q/A specialists, marketing professionals, branding experts, and more. We will draw from the playbook that has already proven successful with our existing customer base.

Bushel's extensive connections and network will be utilized to seamlessly integrate field-level data, grain contracts, deliveries, and all necessary parameters with the processing facilities. This will enable efficient and paperless management of all records in the production of these lower carbon and more sustainable energies.

Our partners, carbon market participants, MMRVs (Measurement, Monitoring, Reporting,



and Verification), and other yet-to-be-named collaborators will connect to Bushel's APIs for authentication and to store the relevant data, attributes, and certifications related to the grains and renewable energies created. Purchasers, and those in the supply chain buying differentiated commodities, will have access to this information as well through our new advisor/commercial view.

Environmental and Economic Impacts while Project is Underway:

During the initial 24-month phase of this project, the environmental impacts will be limited to farmers and land directly involved in the pilot process. All field data will be tracked through Bushel Farm. Once the connections are established (estimated to be early 2025), we will commence co-marketing the opportunities and scalability of these results alongside Bushel Farm's new Traceability Dashboard.

By the start of the 2025 growing season, we anticipate that commercialization efforts will be in full swing and the potential of the Traceability Dashboard will become increasingly evident. This significant milestone will not only generate additional revenue for participating farmers but also mark the inaugural season of lower carbon sustainably produced agricultural products that can be scaled and marketed through the renewable energy pipeline.

Ultimate Technological and Economic Impacts:

The current Carbon Accounting process in various industries is extremely fragmented, involving disconnected parties and cumbersome paper-based systems, along with laborious support, audit, and verification processes. Our ultimate objective is to revolutionize the agricultural industry's ability to process and report in real-time by developing a paperless, digitally permissioned reporting system that is instantly adaptable to unlimited market changes and opportunities. As the carbon and sustainability markets continue to evolve, our adaptable toolset will meet the changing parameters.

Through our Traceability Dashboard, we not only support existing specialty products and processes but also facilitate faster market evolution, providing unmatched ease compared to competing products. The economic impact of our solution extends beyond our state or country and has global scalability. Once commercially launched on a broad scale, our solution has the potential to significantly increase farmers' revenues nationwide. According to estimates by CARB, farmers in North Dakota could generate \$30-50 per acre in additional revenue. By 2025, North Dakota is projected to produce over 500 million gallons of ethanol and renewable diesel annually from corn and soybeans. Introducing a scalable option for farmers to monetize their sustainable practices and sell premium products could potentially generate over \$50 million per year for our state's farmers. Additionally, by capturing a 10 cent per gallon premium on sustainable fuels, refiners in North Dakota alone could gain an additional \$50 million in revenue.

These estimates focus solely on the impact within North Dakota, but when expanded nationwide, the multiplier effect becomes even more significant. Increasing the value of corn and soybeans to processors

by just 15 cents per bushel (with estimates suggesting that lower carbon inputs can be worth upwards of 40 cents more per bushel according to CARB) would result in an annual revenue increase of \$1.15 billion for US corn and soybean producers. Similarly, applying this to the national scale of our 20 billion gallon ethanol and renewable diesel markets, a 10 cent per gallon increase in the value of the fuel created translates to an additional \$2 billion in revenue annually.

Furthermore, this proposal only scratches the surface of the value derived from other areas of monitoring and enablement, such as livestock, grain for food, feedstock, and monitoring agriculture-related energy use. The second-order effects of this project have the potential to redefine agriculture and create new revenue opportunities for decades to come.

Why the Project is Needed:

With the increasing focus on carbon reduction, discussions about the need for change have intensified. However, scalable opportunities that can effectively incentivize a shift in practices are lacking. The United States is rapidly approaching a critical point in supply and demand, and our existing infrastructure is ill-prepared for this challenge. Surprisingly, despite more than one-third of the largest 2,000 publicly traded companies committing to significant carbon footprint reduction by 2025 or 2030, over two-thirds of these companies lack a concrete plan or strategy to achieve these goals. Many of these corporations lack a solid understanding of production agriculture and how our technology can assist them in achieving their objectives.

Considering Bushel's proven success in other areas of agriculture and data, we believe this is the most promising investment opportunity for CSEA in this biennium. By leveraging our market reach and addressing the sustainability needs of our state, corporations, and country, Bushel is well-positioned to assist all stakeholders involved.

Given the United States' prominent role in renewable fuels production and the imminent revolution in renewable diesel, no industry is better positioned than agriculture to make a significant impact on carbon reduction. To fulfill the objectives of these corporations, it is crucial to incentivize the production of American commodities such as corn, soybeans, and other grains while establishing robust systems to monitor and track their sustainable attributes.

Although niche products have emerged and achieved limited success in the market, there has yet to be an infrastructure with comprehensive market-making capabilities that can truly establish a scalable market for the industry's success. This is precisely where Bushel, along with CSEA, our customers, network, and partners can surpass previous attempts and drive the industry forward.

STANDARDS OF SUCCESS

The primary objective of our project is to enable farmers and renewable energy processors to effectively monetize the adoption of widespread sustainable practices, thereby reducing the carbon footprint of agriculture and energy, while increasing revenue for farmers and the renewables industry. To date, farmers have faced challenges in embracing, reporting, and deriving value from differentiated commodities within the sustainability revolution.

By providing the market access to an agnostic tool that is able to collect, store, and disseminate data to any parties with secure data-permissioning, Bushel will enable market participants to adopt and scale sustainable practices. Additionally, we will also increase the market's ability to evolve quickly, attract, and create new practices, methodologies, and ideas. This feeds directly into our state's goal of carbon neutrality and makes it all the more attainable.

The ultimate measure of success for this project is whether Bushel has successfully developed and implemented a scalable platform that encompasses the necessary functionality to track, monitor, and facilitate the sale of differentiated commodities across diverse platforms, products, and suppliers.

To consider this project a success internally, Bushel aims to have over 10 million acres in Bushel Farm actively engaged in differentiated commodity reporting by the 2028 marketing year. This adoption would translate to an estimated sequestration of 7.6 million tons of carbon that year (based on a University of Nebraska Lincoln study on carbon farming), yielding significant ripple effects on Bushels revenue and subscription base.

The public and private sectors will both benefit from our finished Traceability Dashboard as the increase in the market for carbon offsets, differentiated commodities, and easier movement of data will enable all participants to increase participation, liquidity, and motivation around sustainability.

With such widespread adoption, there would be no limit to the scalability of Bushel Farm, as it could accommodate any number of acres moving forward. We firmly believe that the combination of our product and the growing market for sustainable renewable energies has the potential to revolutionize traceability in agriculture on a global scale.

BACKGROUND/QUALIFICATIONS

Our leadership has often joked 'had we known the effort it would take to build what we have built... Bushel might not have ever started.' The effort behind perfecting data integrations and data standardization across the continent has been arduous, but rewarding. Over the past 7 years, Bushel has scaled from 40 employees to over 200 employees today. Our Fargo-based team has proven itself time and again through our dedication and continued success.

Bushel's leadership team comprises individuals from various backgrounds, each with a strong agricultural history. Chief Technology Officer, Randy Gerhold, brings extensive experience from Microsoft, overseeing large-scale software projects. Co-founders Jake Joraanstad and Ryan Raguse have deep agricultural roots, growing up near Rolla and the Red River Valley. Chief Growth Officer, Michael Sharov, brings decades of expertise from John Deere, Granular, and Caterpillar, including his role as head of product strategy. Camille Grade, Chief Market Officer, is renowned for her branding, adoption, and visionary skills. The rest of Bushel's team possesses diverse experience in ag-tech, integrations, M&A, and software sales. We believe our leadership team represents the most well-rounded group in agri-tech today.

Bushel has integrated with 15+ different agriculture accounting platforms and an infinite number of variations within them which is something unmatched in the agtech industry. That effort and expertise has allowed Bushel to reach a scale of data and service to the industry that wasn't previously possible. Of the top 20 grain companies in the US, Bushel has relationships with over half of them – and more coming online each month.

Bushel works with some of the biggest agriculture companies in North America to help them solve problems through the effective deployment of software solutions. These customers include, but are not limited to: Cargill, Archer Daniels Midland, Consolidated Grain and Barge, The Andersons, AB In-Bev, Koch Industries, Bobcat, Ingredion, Animal Health International, Roger and, many more.

MANAGEMENT

Bushel has extensive experience in managing large-scale custom projects for our own software as well as third party-customers. In a similar fashion, we will monitor and stage investments from CSEA, working in focused teams with project managers, developers, and executive oversight to ensure progress, manage hurdles, and prevent scope creep.

Our Quarterly Planning and Alignment meetings will be the major planning ground each quarter, complemented by smaller sprints within these periods, enabling our teams to flex and focus depending on the specific needs of each project point. Monthly reporting documents will be submitted to CSEA, providing specific data points for each project.

One of the advantages of partnering with Bushel is our efficient structure, which enables us to avoid wasted time on full-time employees. We can flexibly allocate resources across various types of domain expertise (software developers, graphic designers, project managers, etc.) without experiencing any latent time in our schedules. As a result, this will reduce the overall cost of creating the Bushel Farm Traceability Dashboard.

To prevent scope creep in spending and better protect North Dakota's investment, we will hire a Senior Project Accountant so that we go above and beyond for reporting and monitoring our state's valuable capital.

To ensure maximum effectiveness and promote collaboration across various sectors, Bushel has a strategic plan in place to establish an inclusive and diverse advisory team. This cross-industry committee will play a vital role in shaping the project, ensuring that the perspectives and insights of all relevant stakeholders are taken into account. The objective is to develop a highly adaptable, reliable, accessible, and secure platform that meets the needs of all market participants.

Outlined below is a hypothetical breakdown of our preferred committee, reflecting a wide range of stakeholders from different sectors. This diverse composition will provide a comprehensive and well-rounded view:

1. North Dakota State University (Production Agriculture/Renewable Energies)
2. UND (University of North Dakota) EERC (Energy & Environmental Research Center)
3. Bio-Refiners and Processors (Ethanol/Renewable Diesel)
4. Fossil Fuel Industry (Coal/Oil & Gas Representative)
5. Regulatory (CARB - California Air Resources Board)
6. Independent Representative (Financial/Regulatory Sector)
7. Agricultural Representative (Farmer)
8. Governance (BND/State of North Dakota)

Bushel has always believed that better products are created by diverse, broad-reaching contributions. This collaborative approach will foster innovation and efficiency across industries, enabling the project to make a meaningful, sustainable, and lasting impact.

TIMETABLE

A project-by-project outline is provided as a separate appendix to this proposal titled: *Confidential: CSEA: Project Timetable/Budget Estimates*. Bushel will provide quarterly planning outlooks and regular updates as we advance through each independent objective within this overall proposal. These reports will be shared with CSEA following our Quarterly Business Review process, which all of our development teams follow for reviewing the previous quarter's activities.

While a significant portion of the project involves integrations, security, and API development, we anticipate the visible results to be delivered in the following sequential manner as we progress through the development stages.

Q3 2024: Farmers will have the ability to import most, if not all, their field-level activities directly into their Bushel Farm account from the top 10 necessary Machine Data integrations. We will also enhance the robustness and cost-effectiveness of our backend connections.

Q1-Q2 2025: Growers can permission their information to be shared through the Traceability Dashboard, handing buyers the needed sustainability metrics with which to create their low carbon test batch. Pilot

processors can conduct a 'test run' of specific grain data through their system. Success in this milestone will launch our overall commercialization and marketing strategy, targeting buyers across North America.

Harvest 2025: We anticipate producing and selling our first commercial batch of renewable, lower carbon fuel to an end user from one of our pilot facilities.

2026: Farmers will have the ability to consider and adjust their growing practices on a broad scale to meet the specific grain buying entities' product options. Our commercialization team, along with our MMRV and registry partners, will vigorously pursue and adopt products and processors into Bushel, further expanding the market for these renewable, sustainable differentiated commodities.

Our commercialization team, MMRV, and registry partners will be full-scale pursuing and adopting products and processors into Bushel to continue increasing the market for these renewable, sustainable differentiated commodities.

BUDGET

*This is the Summary Budget, more details into the use, staffing and allocations are broken out in our attached appendix: **Confidential**: CSEA Project Timetable/Budget Estimate*

| Project Associated Expense | NDIC Grant | NDIC Loan | Applicant's Share (Cash) | Other Project Sponsor's Share | Total |
|----------------------------|-------------|-----------|--------------------------|-------------------------------|--------------|
| Software Development | \$3,702,600 | | \$4,525,400 | | \$8,228,000 |
| Pilot Program | \$440,100 | | \$537,900 | | \$978,000 |
| Marketing Allocation | \$553,162 | | \$676,088 | | \$1,229,250 |
| Commercialization Plan | \$823,500 | | \$1,006,500 | | \$1,830,000 |
| | | | | | |
| Total | \$5,519,362 | | \$6,745,888 | | \$12,265,250 |

CONFIDENTIAL INFORMATION

We have attached the confidentiality request document, which outlines the sensitive nature of the attached appendices and emphasizes the need for their security. We kindly request that the following items, be treated as confidential due to the competitive and protectionist nature of agri-tech, the emissions markets and associated technologies:

1. Project Timetable/Budget Estimates
2. Business Plan
3. Historical Financial Statements (these will be shared directly with the Bank of North Dakota)
4. Budgeted Projections

These materials contain crucial information regarding our competitive advantage, encompassing our strategic direction, speed, and partnerships. Particularly, our planning efforts for the development of our Dashboard, interconnected products, and go-to-market strategy are at a high risk of theft and replication. Therefore, it is of utmost importance that the confidentiality of these documents is maintained.

PATENTS/RIGHTS TO TECHNICAL DATA

*Any patents or rights that the applicant wishes to reserve must be identified in the application. If this does not apply to your proposal, please note that below.*⁸

Bushel reserves all rights under its pending or granted patents

- *Commodity tracking system and method* 16/100,129
- *Blind commodity marketplace* 16/542,937
- *BLIND COMMODITY MARKETPLACE* 2019321690
- *BLIND COMMODITY MARKETPLACE* 1120210029214
- *Qualitative commodity matching* 17/569,271
- *BLIND COMMODITY MARKETPLACE* PCT/US19/47065
- *User interface for adjusting component proportions* 17/730,141
- *Computer display screen with component proportionality element* 29/845,734
- *Commodity Tracking System and Method* US 11,100,579
- *System and Method for Field Variance Determination* US 9, 734,400
- *SYSTEM AND METHOD FOR REMOTE NITROGEN MONITORING AND PRESCRIPTION* US 9,652,840
- *System and Method for Crop Health Monitoring* US 9,638,67

STATE PROGRAMS AND INCENTIVES

Here is a list of all state programs that Bushel has participated in during the past 10 years we have been in business.

- **Operation Intern North Dakota Department of Commerce Workforce Development**
 - 05/31/2021-06/01/2022 = \$14,648.30
- **Legacy Investment for Technology Loan Fund (LIFT)**
 - 06/08/2020 - 06/08/2027 = \$1,000,000.00
- **North Dakota Jobs Credit**
 - 01/22/2013 - 01/22/2023 = \$519,619.21
- **North Dakota Development Fund Loan**
 - 12/08/2017 - 01/01/2022 = \$500,000.00
- **Bank of North Dakota New Venture Capital Loan**
 - 12/08/2017 - 01/01/2022 = \$300,000.00
- **Growth Initiative Fund Loan**
 - 12/08/2017 - 01/01/2022 = \$300,000.00

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