January 28, 2026

North Dakota Industrial Commission
ATTN: Renewable Energy Development Program
State Capitol – Fourteenth Floor
600 East Boulevard Avenue
Bismarck, North Dakota 58505

RE: **Renewable Energy Program Grant Application – Xylion Technologies, INC.**
Project Title: "Valorization of Bakken Produced Water: A Pilot Project for Domestic Rubidium Production and Oilfield Revenue Enhancement"

To Whom It May Concern,

Xylion Technologies, INC. is submitting this application, requesting $500,000 in grant support from the Renewable Energy Program, with the remainder to be committed by Xylion. At Xylion, we are committed to redefining industry standards through sustainable extraction practices, environmental stewardship, responsible resource management, and ongoing collaboration with stakeholders.

Key benefits to North Dakota:

- **Positions North Dakota as a Leader in U.S. Critical Mineral Security:** establishes an entirely new advanced manufacturing sector in North Dakota, the production of critical minerals, diversifying the state's economy beyond its traditional pillars.
- **State-Level Economic Diversification and Job Creation:** This project is a catalyst for economic diversification. A single facility is projected to create 15 direct, high-paying technical jobs.
- **A new, direct revenue stream for North Dakota's Oil & Gas Sector:** Economic impact encompasses the creation of a new revenue stream for oil and gas operators and saltwater disposal companies from a current waste liability – oilfield brine.
- **Powering the Green Energy Revolution:** While the economic benefits to the oilfield are immediate, Rubidium's long-term value lies in its role as a "silent giant" for the green energy transition. It is rapidly becoming a critical component for next-generation renewable technologies
- **Beneficial Use of Carbon Dioxide:** The process is designed with the capability to source CO_2 from local North Dakota industrial emitters. Utilizing existing infrastructure, thereby building on North Dakota's current energy success and longevity and reducing environmental impact.

If you require additional information, please feel free to contact me at marty.scase@xyliontechnologies.com or (403) 608-6293.

Best regards,

Marty Scase, President & CEO
Xylion Technologies, INC.

Renewable Energy Program

North Dakota Industrial Commission

Application

Project Title:

Valorization of Bakken Produced Water: A Pilot Project for Domestic Rubidium Production and Oilfield Revenue Enhancement

Name of Organization:

Xylion Technologies, INC.

Date of Application:

January 28, 2026

Amount of Request:

$500,000

Total Amount of Proposed Project:

$1.5 million

Duration of Project: 9 months

Point of Contact (POC): Marty Scase

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marty.scase@xyliontechnologies.com

POC Address:
925 72nd Ave NE
Minot, North Dakota 58703

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ABSTRACT

Objective:

To pilot, validate, demonstrate and de-risk a proprietary ion exchange technology (Xy-lect Rb 100) for the economic extraction of rubidium carbonate, a USGS federally designated critical mineral, from the Bakken/Three Forks formation produced water and possibly other formations. This project will be conducted in direct partnership with a North Dakota oil and gas producer or saltwater disposal (SWD) operator, establishing a new model for waste stream valorization within the state's energy sector. Beyond technical validation, the business model development will focus on modular, scalable and repeatable facilities utilizing existing infrastructure thereby building on North Dakota's current energy success and longevity.

Expected Results:

The project will validate the technical and economic assumptions of a full-scale commercial facility, which projects an exceptional financial profile with a rapid payback period. Success will serve as the catalyst to unlock over $28 million in subsequent additionally staged capital for a commercial plant, establishing a new, high-value advanced manufacturing industry in North Dakota. This will create the first domestic supply chain for rubidium, a mineral for which the United States is currently 100% import-reliant, thus enhancing national and economic security.

Duration:

9 months – we are using off the shelf equipment and prior work and knowledge to keep a tight timeline.

Total Project Cost:

The total cost for this pilot project is $1,500,000. The grant request is for $500,000, with the remainder of capital to be raised from private investors. This pilot represents the critical de-risking phase to secure the larger investment for the first commercial-scale facility, estimated at approximately $28.0 million. The facility will be built in multiple stages, initially handling 10,000 barrels/day of brine (~12 tons/annum of rubidium carbonate) expanding to 30,000 barrels/day of brine (~36 tons/annum of rubidium carbonate) with the capacity to keep expanding or build on additional sites.

Participants:

Xylion Technologies is currently in discussions with various large oil and gas companies and saltwater disposal (SWD) companies that operate in North Dakota. Additionally, Xylion is in discussions to partner with the University of North Dakota and the Energy and Environmental Research Center (EERC) to continue research, development and marketing.

PROJECT DESCRIPTION

Objectives:

The primary objective of this project is to construct and operate a field pilot/demonstration-scale extraction plant that processes live Bakken/Three Forks produced water to definitively validate the performance of the proprietary Xy-lect Rb 100 adsorbent and the efficacy of the overall process design. The successful completion of this pilot/demonstration is the final and most critical step required to de-risk the technology for full commercial-scale deployment in North Dakota.

Methodology:

Initial Lab & Bench-Scale Research

The project, which is already in progress, will continue with a focused 3- to 6-month lab and bench-scale research phase. This work will involve performing final optimization of the Xy-lect Rb 100 adsorbent using brine sourced directly from the North Dakota Bakken/Three Forks formation. This step ensures the media is sufficiently tailored to the specific water chemistry of the target feedstock. Leveraging the team's extensive experience with a similar lithium extraction process, the detailed Front-End Engineering and Design (FEED) for the pilot/demonstration plant will be developed in parallel, significantly compressing the overall project timeline.

Xylion Technologies has a laboratory at the Quantum and Nanotechnologies Research Centre (NRC) building at the University of Alberta in Edmonton, Alberta, with its own space and equipment with access to all the high-level equipment throughout the building.

Technical Process: The Xy-lect Rb 100 Ion Exchange System

The core of this project is a robust hydrometallurgical process centered on the proprietary ion exchange adsorbent, Xy-lect Rb 100. Raw Bakken brine is contacted with the adsorbent in a series of HDPE Continuous Stirred Tank Reactors (CSTRs). Once loaded with rubidium, the adsorbent is treated with an eluent solution to create a concentrated rubidium-rich stream. This stream undergoes standard chemical precipitation and purification steps using reagents such as sodium hydroxide and carbon dioxide to produce the final, high-purity rubidium carbonate (Rb_2CO_3) product.

Process Synergy: Beneficial Use of Carbon Dioxide

A key potential feature of the process is the use of carbon dioxide (CO_2) in the final purification stage to precipitate the high-purity rubidium carbonate product. This creates a unique opportunity for industrial synergy and enhanced environmental performance. The process is designed with the capability to source CO_2 from local North Dakota industrial emitters, such as ethanol plants or natural gas processing facilities. This approach establishes a value-added offtake for captured carbon, directly supporting a circular carbon economy within the state and further strengthening the project's overall environmental profile.

Anticipated Results:

The project is anticipated to validate the key technical and commercial metrics required to move forward with a commercial facility. This includes proving the extraction efficiency (≥68%), adsorbent durability (≥250 cycles), product purity (≥99.7%), and process integrity. Results will be used to secure offtake agreements, finalize partnerships, and de-risk the financial models to secure up to $28 million in private

capital for the first commercial plant. The process can be staged with an initial capital requirement of approximately $1.5 million for a 10,000 barrel a day processing capacity plant.

Facilities:

The pilot plant will be located on-site with a North Dakota-based oil and gas operator or Saltwater Disposal (SWD) company partner. The facility will consist of a pilot skid including the Adsorption System, Filtration, Drying & Product Handling equipment, Plant Control System, and a Wastewater Treatment Unit. The specific site will be finalized during Phase 3, with site preparation (foundation and utility connections) conducted during Phase 4.

Resources:

The primary resources include the Xy-lect Rb 100 proprietary adsorbent, Bakken/Three Forks produced water feedstock provided by the partner, standard chemical reagents (NH_4Cl, NaOH, CO_2), electricity to be supplied by a local portable generator, and utilities. Specialized labor includes 2 FTE Pilot Operators, as well as Engineering, R&D, and Management personnel (provided partly in-kind by Xylion).

Techniques to Be Used, Their Availability and Capability:

The project utilizes a proprietary ion exchange technology (Xy-lect Rb 100) within a robust hydrometallurgical process. This involves:

1. **Ion Exchange:** Utilizing the proprietary Xy-lect Rb 100 adsorbent in Continuous Stirred Tank Reactors (CSTRs) to selectively capture rubidium.
2. **Elution:** Chemical elution to create a concentrated rubidium stream.
3. **Precipitation and Purification**: Standard chemical processing techniques to produce the final high-purity product.
4. **Technical validation:** Internal and third party ICP analytical validation.

The Xy-lect Rb 100 technology is available through Xylion Technologies, which leverages experience from similar extraction processes.

Environmental and Economic Impacts while Project is Underway:

Economic Impacts: The immediate economic impact during the 9-month pilot facility is the capital investment of $1.5 million into the project, including procurement, site preparation, and specialized labor (2 FTE Pilot Operators, plus R&D and engineering personnel).

Environmental Impacts: Environmentally, the pilot project will be located at a class 2 salt water disposal site. The waste stream will be confirmed to comply with and be reinjected in the existing disposal well.

The pilot will also test the capability to utilize captured CO_2 from local emitters for the purification process, demonstrating environmental synergy.

Ultimate Technological and Economic Impacts:

A New, Direct Revenue Stream for North Dakota's Oil & Gas Sector.

Economic impact encompasses the creation of a new revenue stream for oil and gas operators from a current waste liability. The commercial model is a true partnership, where a portion of the projected

revenue—approximately $33.2 million annually from a 30,000 barrel-per-day plant—is shared with the brine provider. This model is flexible, offering distinct advantages for different types of partners:

- **For SWD Partners:** Siting at a large SWD facility provides access to high, consistent volumes of aggregated brine from multiple producers, maximizing the potential scale and throughput of the extraction plant.
- **For Producer Partners:** Co-locating directly at a producer's central tank battery allows the operator to immediately convert an on-site waste management cost into revenue before the water enters the costlier SWD network, directly improving the base economics of their oil production. There will also be the opportunity to use flare gas as a feedstock for a cogeneration system to supply electricity for the commercial site.

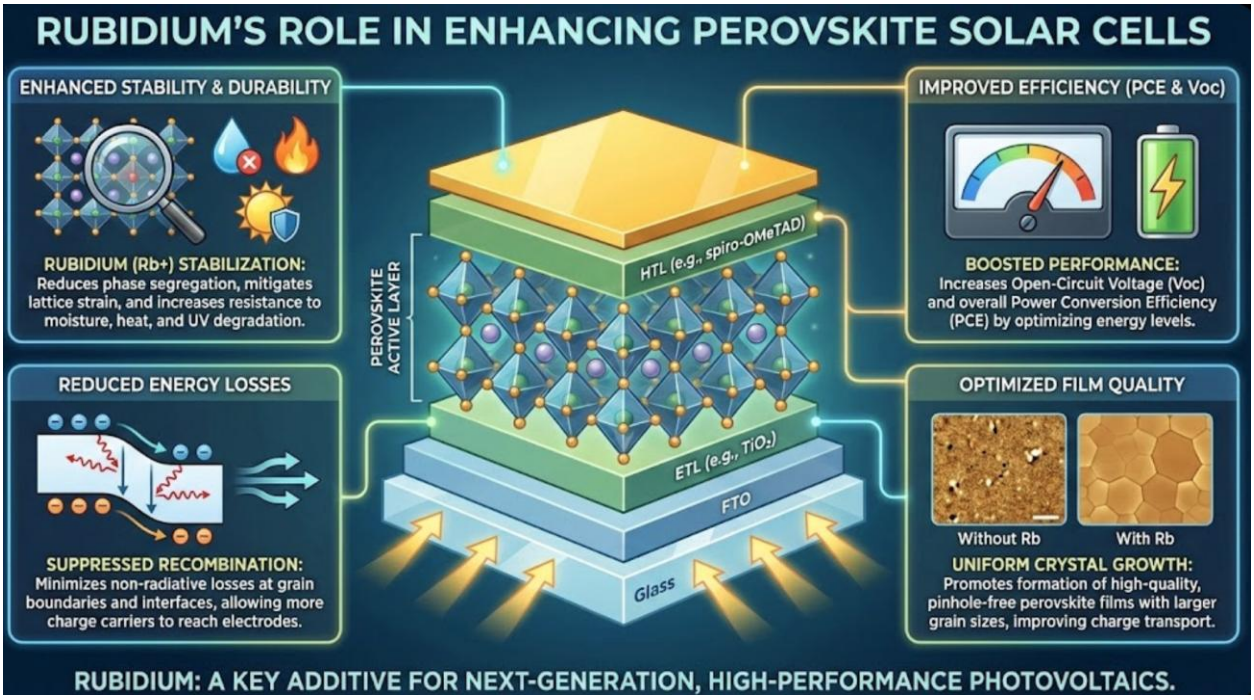
State-Level Economic Diversification and Job Creation

- This project is a catalyst for economic diversification. A single facility is projected to create 15 direct, high-paying technical jobs. More importantly, it establishes an entirely new advanced manufacturing sector in North Dakota—the production of critical minerals—diversifying the state's economy beyond its traditional pillars.

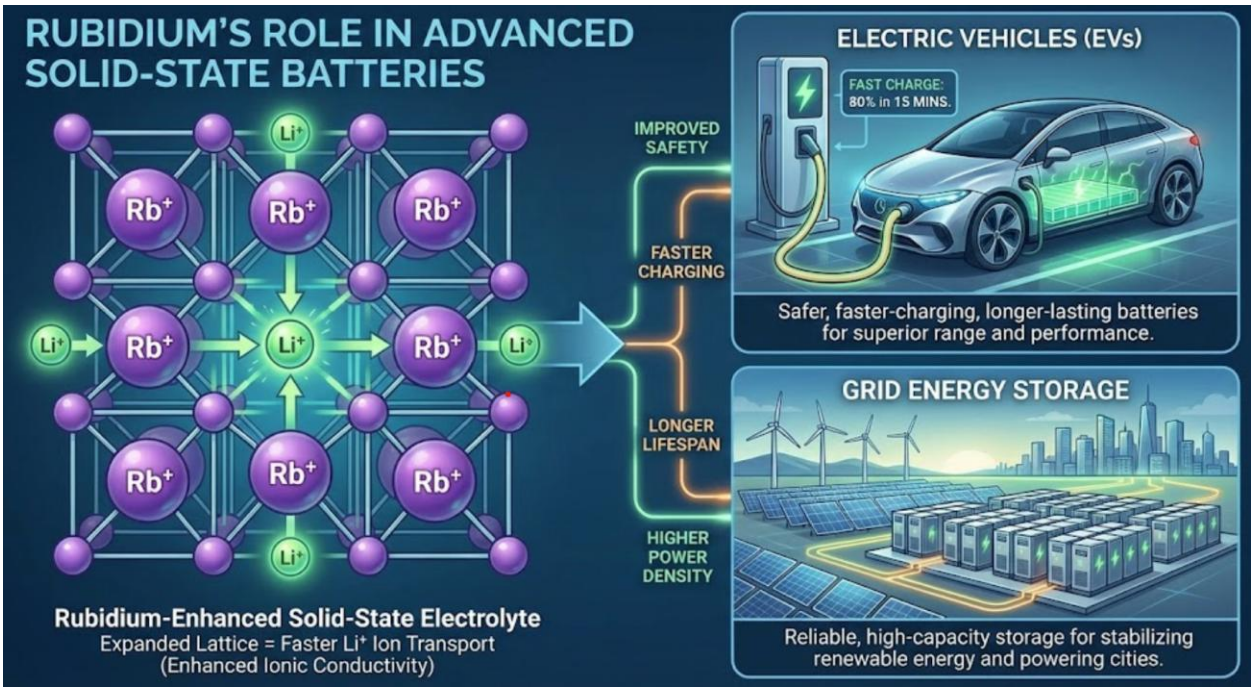
Positioning North Dakota as a Leader in U.S. Critical Mineral Security

- Rubidium is a "critical mineral" essential to U.S. economic and national security, with applications in atomic clocks for GPS, defense systems, and fiber optics. The U.S. is currently 100% net import reliant for its supply. This project directly confronts this vulnerability by establishing the first-ever domestic production of rubidium, positioning North Dakota as a leader in a national strategic imperative. Development of this technology will lead to the advancement of technologies to extract additional critical or valuable minerals from oilfield brines. This could include manganese, iodine, bromine or other valuable minerals that may be present.
- **Powering the Green Energy Revolution.** While the economic benefits to the oilfield are immediate, Rubidium's long-term value lies in its role as a "silent giant" for the green energy transition. It is rapidly becoming a critical component for next-generation renewable technologies:

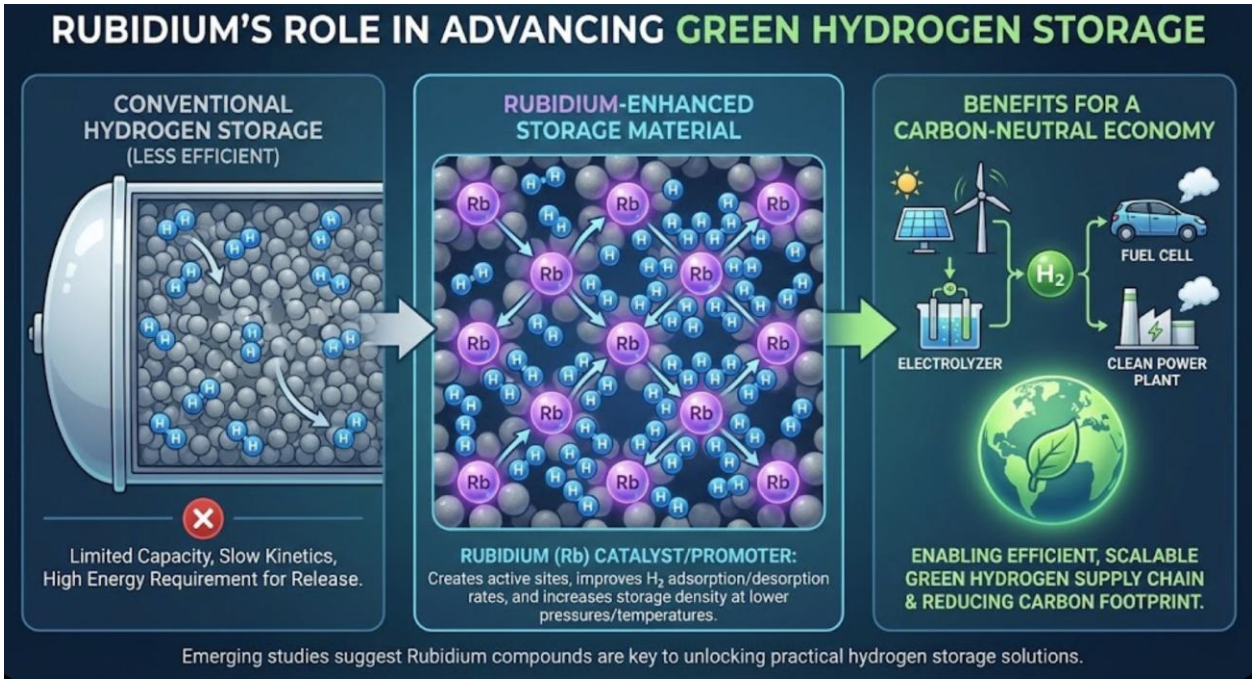
    - **Supercharging Solar Efficiency:** The solar industry is racing to commercialize **Perovskite Solar Cells (PSCs)**, a technology widely considered the future of solar power because it is cheaper and more efficient than traditional silicon panels. Recent research has shown that adding Rubidium cations to these cells stabilizes their crystal structure. This process reduces energy loss and significantly boosts power conversion efficiency, helping solar panels break new performance records.



- **Advanced Batteries:** Rubidium is being investigated for use in solid-state battery electrolytes. Its unique properties can enhance ionic conductivity, which is essential for creating safer, faster-charging, and longer-lasting batteries for electric vehicles and grid storage.



- **Green Hydrogen:** Emerging studies suggest Rubidium compounds can improve the efficiency of hydrogen storage materials, helping to solve one of the key logistical hurdles in building a carbon-neutral fuel economy.



- Xylion Technologies is striving to be the leader in ion exchange technologies to extract critical minerals from oilfield brines, coal ash and fly ash leaching fluid. Rubidium is step 1 of multiple steps of extracting additional critical minerals and rare earth elements.

Why the Project is Needed:

North America relies 100% on foreign sources for Rubidium, with China dominating supply of Gallium, Germanium, and Rare Earth Elements. This reliance creates significant geopolitical and supply chain risks for critical minerals. The project is needed to address a significant national security vulnerability by creating the first domestic supply of the critical mineral Rubidium. Recovering strategic metals from coal combustion ash, a high-volume industrial byproduct, offers a scalable domestic solution. Converting coal ash reduces dependence on primary conventional mining while creating a new secure U.S. supply stream. This initiative delivers both economic benefits and enhances national mineral security.

The Opportunity: Turning Waste into Strategic Assets

Economically, it provides a necessary pathway to convert a significant waste stream (Bakken/Three Forks produced water) into a high-value product, creating new revenue for the oil and gas sector and diversifying the State economy. A pilot is the critical de-risking step required to unlock additional capital necessary for commercial deployment in North Dakota.

STANDARDS OF SUCCESS

Success is defined by meeting or exceeding the following Key Performance Indicators (KPIs), measured through continuous operation data collection and laboratory analysis:

1. **Extraction Efficiency:** Achieving ≥68% rubidium extraction from Bakken/Three Forks brine.

Measurement: Analysis of rubidium concentrations in the input brine and the effluent stream during continuous operation.

2. **Adsorbent Durability:** Validating ≥250 full extraction and regeneration cycles for the Xy-lect Rb 100 media.
   Measurement: Tracking the performance and degradation of the adsorbent over the duration of the pilot and analyzing the data.
3. **Product Purity**: Producing rubidium carbonate (Rb_2CO_3) with ≥99.7% purity.
   Measurement: Laboratory analysis of the final product samples.
4. **Financial De-Risking:** Achieving a Class 3 estimate level (+/- 15%) for CAPEX and OPEX models.
   Measurement: Validation by an independent engineering firm using pilot data.
5. **Market Validation**: Securing binding Letters of Intent (LOIs) or definitive offtake agreements.
   Measurement: Execution of commercial agreements based on pilot-produced product.

The value to North Dakota:

- The project provides significant value to North Dakota by enhancing the development of its resources, specifically by valorizing produced water from the oil and gas industry.
- Enhancing Resources and Creating Jobs: It establishes a new model for waste stream utilization. It preserves existing jobs in the oil and gas sector by improving the economics of production (converting waste cost into revenue) and creates new, high-paying technical jobs in advanced manufacturing (15 direct jobs per commercial plant).
- **Economic Diversification:** It establishes a new critical minerals industry within the state, diversifying the economy.
- **Revenue Generation**: A commercial plant is projected to generate $33.2 million annually, increasing state sales and income tax, likely attract new industry development from a new raw material ecosystem, allow for interstate and international trade, and improvement for local oil and gas partners.
- **Strategic Leadership:** It positions North Dakota as the leader in domestic rubidium production, addressing a national security imperative.

An explanation of what parts of the public and private sector will likely make use of the project's results, when, and in what way.

- The private sector (oil and gas producers, SWD operators, and the investment community) will utilize the results immediately. The potential for commercial use is high. The pilot data is the critical step to unlock millions in private investment to construct the first commercial-scale facility in North Dakota. The successful demonstration will serve as a model for subsequent facilities across the Williston Basin.

The potential that commercial use will be made of the project's results.

- Target market: includes companies and industries that utilize quantum computing, data centers, GPS, 5G technologies, atomic clocks, specialty glass, semiconductors, fiber optics, infrared optics, aerospace alloys, fuel cells, and high-performance magnets.
- Potential global market share:

Metal	Xylion Primary Source	Xylion Source Location	Est. Market Price (USD)	Global Market Size (2024)	Key Applications
Rubidium	Brine	North Dakota	$1,000 – $1,300/kg	$4B	Atomic Clocks (GPS, 5G), Specialty Glass
Gallium	Coal Ash	North Dakota	$1,060/kg	$2.56B	Semiconductors, 5G, Defense
Germanium	Coal Ash	North Dakota	$5,800/kg	$345MM	Fiber Optics, Infrared Optics
Scandium	Coal Ash	North Dakota	$1,500 – $3,000+/kg	$591MM	Aerospace Alloys, Fuel Cells
Dysprosium (Rare Earth Mineral)	Coal Ash	North Dakota	$450 – $500/kg	$715MM	High-performance Magnets (EVs)

How the project will enhance the education, research, development, and marketing of North Dakota's renewable energy resources.

- Xylion is in discussions to partner with the University of North Dakota and the Energy and Environmental Research Center (EERC) to continue research, development and marketing. The project leads to additional opportunities to extract critical minerals from coal ash and the coal seams.

How it will preserve existing jobs and create new ones.

- This project is a catalyst for economic diversification. A single facility is projected to create 15 direct, high-paying technical jobs. More importantly, it establishes an entirely new advanced manufacturing sector in North Dakota—the production of critical minerals and rare earth elements—diversifying the state's economy beyond its traditional pillars.

How it will otherwise satisfy the purposes established in the mission of the Program.

- This project will help enhance North Dakota's advanced energy technology for direct mineral extraction, creating the first domestic supply chain for rubidium, a mineral for which the United States is currently 100% import-reliant, thus enhancing national and economic security.
- A key potential feature of the process is the use of carbon dioxide (CO_2) in the final purification stage to precipitate the high-purity rubidium carbonate product. This creates a unique opportunity for industrial synergy and enhanced environmental performance. The process is designed with the capability to source CO_2 from local North Dakota industrial emitters, such as ethanol plants or natural gas processing facilities. This approach establishes a value-added offtake for captured carbon, directly supporting a circular carbon economy within the state and further strengthening the project's overall environmental profile.

How it will be reporting on the success of the project:

Xylion Technologies will report on the success of the project through interim reports (as defined in the Timetable) and a comprehensive final report submitted to the Renewable Energy Program/North Dakota Industrial Commission in Month 10 (Phase 6), detailing performance data, analysis, and achievement of the standards of success.

BACKGROUND/QUALIFICIATIONS

Xylion Technologies, INC is a technology company specializing in the development of advanced materials for sustainable energy solutions, with a primary focus on extracting critical minerals and rare earth elements from oilfield brines and coal ash. The company and its management team possess extensive experience directly relevant to this project, stemming from over four years of dedicated field and lab research in developing and validating ion exchange media for lithium extraction. This prior work involved an investment of over $10 million in research and development and culminated in the successful development of a lithium-specific adsorbent that has been rigorously tested at the lab, bench, and commercial scales.

Xylion's expertise is validated by over $2 million in sales of its lithium media to LibertyStream Infrastructure Partners, a partnership that provided foundational manufacturing and product development experience. Building on this success, Xylion's team is now applying its proven knowledge and processes to the development of the proprietary Xy-lect Rb 100 adsorbent for rubidium extraction.

Xylion Technologies is in discussions to partner with the University of North Dakota and the Energy and Environmental Research Center (EERC) to continue research, development and marketing. Additionally, the company's leadership has acquired the CTC lab from Sterling Chemicals. The lab's location within the National Research Council of Canada's Nanotechnology Center at the University of Alberta provides access to world-class researchers, highly technical staff, and advanced equipment, enabling Xylion to accelerate its R&D efforts.

MANAGEMENT

Background/Qualifications:

Applicant & Prior Work Xylion Technologies, INC. is a technology company specializing in the development of advanced materials for sustainable energy solutions, with a primary focus on extracting critical minerals from oilfield brines. The company and its management team possess extensive experience directly relevant to this project, stemming from over four years of dedicated field and lab research in developing and validating ion exchange media for lithium extraction. This prior work involved an investment of over $10 million in research and development and culminated in the successful development of a lithium-specific adsorbent that has been rigorously tested at the lab, bench, and commercial scales.

Xylion's expertise is validated by over $2 million in sales of its lithium media to LibertyStream Infrastructure Partners, a partnership that provided foundational manufacturing and product development experience. Building on this success, Xylion's team is now applying its proven knowledge and processes to the development of the proprietary Xy-lect Rb 100 adsorbent for rubidium extraction.

To support this and future development, the company's leadership has acquired the CTC lab from Sterling Chemicals. The lab's location within the National Research Council of Canada's Nanotechnology Center at the University of Alberta provides access to world-class researchers, highly technical staff, and advanced equipment, enabling Xylion to accelerate its R&D efforts.

Principal Investigator & Key Personnel: The project will be led by a highly qualified team with a decade of experience working together, including over three years focused specifically on mineral extraction from brine.

- **Dr. John McEwen, Principal Investigator & CTO**: Technical executive with 35+ years of experience, with the last 18 years focusing on field logistics, project execution, and supply-chain management in the Western Canadian Sedimentary Basin. Former CTO of LibertyStream, where he led development and pilot-scale commercialization of DLE technologies, including for ion-exchange media, across multiple North American basins. Dr. McEwen holds a Ph.D. in Chemistry from the University of Toronto. His deep expertise in chemistry and industrial processes is central to the project's technical execution.

Management Team: The project is supported by a management team with extensive experience in resource management, finance, and technology commercialization.

- **Marty Scase (President & CEO):** Executive with 25+ years of leadership across oilfield services, production chemicals, and industrial technologies, currently leading Sterling Chemicals. Founder and former Executive Chairman of LibertyStream (TSXV: LIB), where he helped commercialize Direct Lithium Extraction (DLE) technologies; serves as a Director of Monolith Metals.
- **Chris Scase (COO & CFO):** Financial leader with 27+ years of experience overseeing strategy, operations, and financial discipline across industrial and oilfield service businesses. Co-founder of LibertyStream, with deep experience scaling early-stage extraction and processing technologies from pilot to commercial operations.
- **Dr. John McEwen (Chief Technology Officer):** see above.
- **Cam Jarvis (VP, Operations):** Executive with 25+ years of leadership across oilfield services, production chemicals, and industrial technologies, currently spearheading operations at Sterling Chemicals. Bridges engineering design and on-site execution, ensuring safe, efficient deployment of industrial technologies in active oilfield environments.

Board of Directors:

- **Marty Scase, Director:** see Management above.
- **Kurtis Lively, CPA, Director:** Senior executive with a proven record of scaling industrial and energy service businesses, most recently as President of Centurion Canada following six years as CFO. Brings deep capital markets, public accounting, and strategic advisory experience, including 14 years as a public accounting partner and early career investing.

Advisory Board:

- **Landon Irwin, Advisor:** Energy executive with two decades of experience across U.S. oil & gas basins, spanning business development, strategic planning, and consulting roles. Provides deep U.S. market insight and a strong network of operator and service company relationships to support commercialization and growth.

- **Kent Kirkhammer, Advisor:** Founder, President & CEO of NewKota Services & Rentals, a leading U.S. oilfield service company with operations across North Dakota, Wyoming, and Colorado. Provides strategic access to U.S. operators, cross-border logistics expertise, and regulatory insight through board roles with the North Dakota Petroleum Council.
- **Sony Gill, Advisor:** Partner in Capital Markets and M&A at Stikeman Elliott, advising on company formation, growth strategies, restructurings, and complex transactions. Recognized as a Top 10 M&A Lawyer in Canada (2023), with extensive experience across energy, agribusiness, and investment sectors.

Project Management:

Xylion Technologies will manage and oversee this project through a structured, phase-gated approach to ensure it is completed on schedule and meets its objectives. The management plan leverages the team's extensive experience in capital project development and technology commercialization.

The project has been broken down into six distinct phases, each with specific activities and deliverables, as detailed in the project timetable. Progress will be systematically tracked against these milestones. The project's point of contact, CEO Marty Scase, will provide executive oversight and ensure clear communication with the North Dakota Industrial Commission and all project partners. Principal Investigator Dr. John McEwen will oversee all technical aspects, from lab optimization to pilot plant operation, ensuring scientific rigor and the achievement of key performance indicators (KPIs).

Evaluation points are built into the project at the end of each phase. Key evaluation gates include:

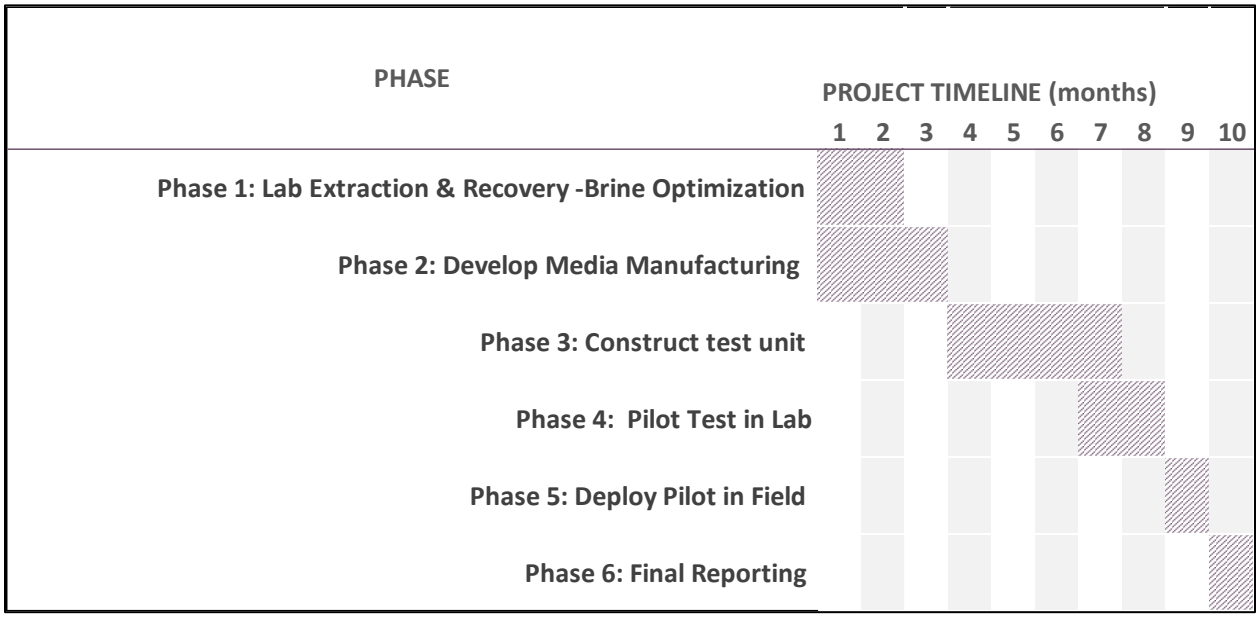
- Month 2: Completion of lab-scale optimization.
- Month 3: Develop media manufacturing.
- Month 7: Construction of test unit.
- Month 9: Deploy Pilot in Field - Continuous Operation & Validation
- Month 9-10: Completion of the continuous operation and data validation campaign.

This structured management and regular evaluation will ensure that technical and commercial objectives are met, paving the way for a seamless transition to commercial deployment.

TIMETABLE

Phase	Major Activities	Duration (Months)	Timeline
Phase 1: Lab Extraction & Recovery -Brine Optimization	Conduct lab-scale optimization of Xy-lect Rb 100 media.	2	January - February
Phase 2: Develop Media Manufacturing	Lab-scale	3	Parallel with Phase 1 January – March

Phase 3: Construct test unit	Issue purchase orders for long-lead equipment & fabrication. Oversee fabrication of the pilot skid.	4	April - July
Phase 4: Pilot Test in Lab	Prepare pilot site test with partner brine.	2	July - August
Phase 5: Deploy Pilot in Field - Continuous Operation & Validation	Install pilot skid and equipment on-site. Operate plant continuously for 30+ days. Collect samples and performance data.	1	September
Phase 6: Final Reporting	Analyze data and submit final report to NDIC.	1	October



BUDGET

Project Associated Expense	Amount of Match	Funding Source	Type of Match (Cash, In-kind, or Indirect)	Applicant Share
Lab Extraction & Recovery -Brine Optimization	$125,000	50% Applicant	Cash and In-Kind	$125,000
Develop Media Manufacturing	$0	Applicant	Cash and In-Kind	$125,000
Construct test unit	$375,000	50% Applicant	Cash and In-Kind	$375,000
Pilot Test in Lab	$0	Applicant	Cash and In-Kind	$231,000
Deploy Pilot in Field -	$0	Applicant	Cash and In-Kind	$75,000
Contingency		Applicant	Cash	$69,000
TOTAL	$500,000			$1,000,000

Summary of Funding Sources

The total budget for the 9-month pilot project is $1,500,000. Funding is provided through a cost-sharing structure detailed below:

Funding Source	Amount	Percentage of Total
NDIC REP (Requested)	$500,000	33.33%
Xylion Technologies (Cash Contribution)	$1,000,000	66.67%
Total Project Cost	**$1,500,000**	**100.00%**

The requested funding is essential for the successful completion of this pilot project. The capital costs are allocated for the procurement and fabrication of the pilot plant skid and associated equipment, which are critical to validating the technology at scale. Operating costs cover the specialized labor, chemical reagents, and analytical testing required to operate the plant continuously and gather the necessary performance data. Xylion is contributing a significant portion of the cost through a direct cash match and substantial in-kind contributions for engineering and management, demonstrating our commitment to the project.

This pilot represents the final and most critical de-risking phase required to unlock over $28 million in subsequent private capital for the construction of the first commercial-scale facility in North Dakota. Therefore, receiving less funding than requested would delay the project and jeopardize its primary objective of achieving the full technical and financial validation needed to secure this larger investment and launch a new critical minerals industry in the state.

PATENTS/RIGHTS TO TECHNICAL DATA

The process and Xy-lect RB 100 media are proprietary to Xylion Technologies. Xylion reserves the right to the proprietary information in preparation for a future patent application**.** Xylion Technologies has acquired the relevant IP portfolio and development efforts previously advanced by the company's management and technical leadership team associated with Sterling Chemicals of Canada. This corporate structuring allows Xylion to focus exclusively on the commercialization of this technology within the United States.

STATUS OF ONGOING PROJECTS (IF ANY)

Not applicable.

STATE PROGRAMS AND INCENTIVES

Not applicable.

TAX LIABILITY STATEMENT

Xylion Technologies, Inc. does not have an outstanding tax liability owed to the State of North Dakota or any of its political subdivisions.