

RENEWABLE ENERGY PROGRAM

NON-CONFIDENTIAL APPLICATION CHECKLIST (Will be posted on website)

**Note: For confidential information, please use the
REP-Other Appendices (Confidential)**

Use this checklist as a tool to ensure that you have all of the components of the application package. Please note that this checklist is for your use only and does not need to be included in the package.

X	Non-Confidential Application
X	Transmittal Letter
X	Tax Liability Statement
X	Letters of Support (If Applicable)
X	Other Non-Confidential Appendices (If Applicable)

When the package is completed, send an electronic version to ndicgrants@nd.gov

For more information on the application process please visit:

[Renewable Energy Program-Applicant Information | North Dakota Industrial Commission](#)

Questions can be addressed to the Industrial Commission at 701-328-7638.

Renewable Energy Program

North Dakota Industrial Commission

PROJECT TITLE:

Biomass to Negative Carbon Intensity Energy Products

NAME OF ORGANIZATION:

Flickertail Resources, LLC

DATE OF APPLICATION:

February 1, 2026

AMOUNT OF REQUEST:

\$500,000

TOTAL AMOUNT OF PROPOSED PROJECT:

\$2,800,000

DURATION OF PROJECT:

10 months

POINT OF CONTACT (POC):

Kurt Swenson

POC PHONE:

701.220.9961

POC EMAIL:

kurt@flickertail.co

POC ADDRESS:

PO Box 182
Beulah, ND58523

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ABSTRACT

Objective:

Flickertail Resources LLC is developing a North Dakota (ND) based biomass to negative carbon intensity (CI) energy products facility. The objective of this grant request is to support Flickertail's phased project development process to commercialize the deployment of the Sandwich Gasifier technology developed at the EERC (now being licensed through Singularity Energy Technologies (SET)) into a ND processing facility that converts biomass to negative carbon intensity energy products. Primary activities being performed include:

- Front End Engineering and Design (FEED) stage FEL-2
- Regulatory Analysis
- Permitting Analysis
- GREET Analysis
- Site Selection
- Interconnect Study (pending site-specific need)
- Community Engagement Activities
- Feedstock / Products Market Analysis and Agreements
- Project De-Risking, Feasibility, and Readiness Activities
- Pre-Investment Development, Stakeholder Engagement and Financial Readiness
- Total Installed Cost Estimate
- Overall Level 1 Project Schedule

Expected Results:

The completion of these development steps will enable our evaluation of overall project feasibility and a go/no go decision to move forward with FEL-3. Key evidence that will inform our decision resulting from this phase of development includes:

- Confirmation of key proforma assumptions:
 - Capital Budget
 - Process Yields, Energy, Utilities and Emissions Estimates
- Feedstock availability and market structure
- Optimal product slate given process technologies, market readiness and pricing structures
- Key regulatory compliance areas and challenges
- Financial strategy for completion of FEL-3 and Detailed Engineering/Design efforts
- Overall Development Timeline

Duration:

We estimate approximately 10 months for these FEL-2 and development activities.

Total Project Cost:

\$2,800,000 (\$500,000 from NDIC Renewable Energy Program and \$2,300,000 from Flickertail)

Participants:

The project will be managed by Flickertail, with primary development assistance from:

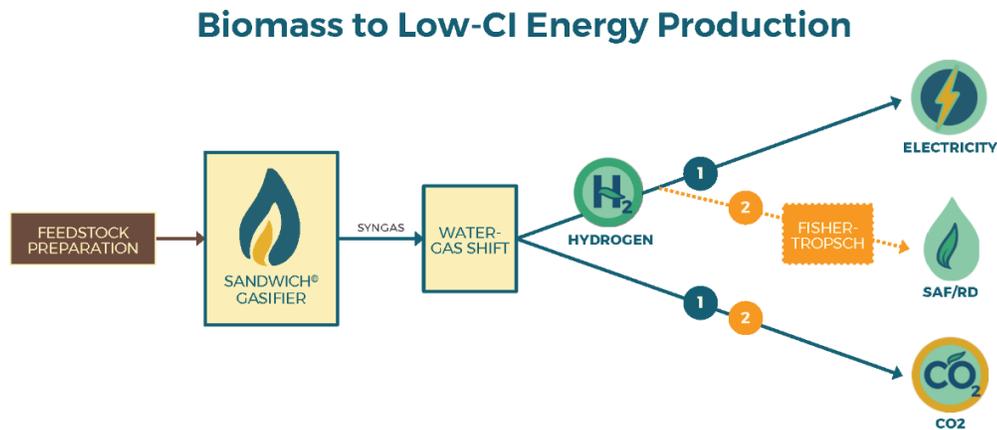
- VAA leading FEL-2 stage engineering deliverables
- Singularity Engineering Technologies (SET) supporting engineering deliverables
- EcoEngineers will provide regulatory, GREET and market analysis support
- MAP General Mechanical Contractors providing project management support, total installed cost estimating and schedule development
- Stantec will provide federal, state and local environmental permitting analysis
- Mickelson & Company will provide insight and strategy for tax credit valuation, counter-party credit worthiness requirements and insurance markets.

PROJECT DESCRIPTION

Objectives:

Flickertail's **Biomass to Negative Carbon Intensity Energy** project aims to establish an enduring facility in ND to convert low value feedstocks to:

- Syngas via the patented Sandwich Gasifier system developed at EERC
- Upgrade the syngas by means of water-gas-shift technology to separate streams:
 - hydrogen rich syngas, AND
 - high purity CO₂
- Convert the hydrogen rich syn gas to either:
 - Option 1 - electricity via combustion in engine / generator sets, OR
 - Option 2 - liquid transportation fuels via the Fisher-Tropsch process



The Sandwich Gasifier has been proven at both pilot and demonstration scale testing on varying feedstocks. Both scales are currently undergoing refinements for additional feedstock testing in early 2026 by the patent holder (SET).

Flickertail has developed an initial pro-forma model, performed a preliminary regulatory analysis and is undertaking an FEL-1 stage engineering study with a feedstock selection of end-of-life railroad ties.

To continue the phased project development, Flickertail is preparing to move into the FEL-2 stage of engineering and numerous project development steps:

- **FEL-2 Engineering Deliverables** will include:
 - Process Flow Diagrams
 - Mass and Energy Balances
 - Technology Evaluation
 - Emissions Estimates
 - Site Layout and General Arrangement Drawings
 - Preliminary P&IDs
 - Major Equipment Lists
 - Preliminary - Electrical Load List, One Lines and Cable Schedules
 - Preliminary - Pipe Routing and Line List
 - Total Installed Cost Estimate

- **Regulatory Analysis** will help determine the applicability of the feedstock, process and products to various federal and state laws, incentives and regulations that will have an impact on schedule, product pricing and capital investment requirements. A key component in the regulatory analysis is to further analyze the carbon intensity of potential energy products via a GREET analysis. Preliminary results indicate -15 g CO₂e/MJ without having to capture CO₂. Adding CO₂ capture further reduces the carbon intensity by another 70 g CO₂e/MJ

- **Permitting Analysis** will determine the local, state and federal permitting requirements, timeline and cost based on one or more locations to be determined in our site selection process.

- **Site Selection** will narrow the probable ND locations to one or more sites with the proper infrastructure and partners. Key evaluation criteria will include:
 - Highway and rail infrastructure
 - Available site utilities
 - Infrastructure and potential partners for CO₂ offtake to be used for Enhanced Oil Recovery (EOR) or sequestration
 - Local stakeholder acceptance and permitting requirements

- **Feedstock / Products Market Analysis and Agreements** will define:
 - End-of-life railroad tie supply – confirm volume, pricing mechanisms, quality, sourcing distances and methods, quality variances and pricing mechanisms.

- Core product sales will be evaluated on market demand validation, offtake strategy, and counterpart identification.
 - Electricity sales markets will be evaluated based on site selections for “behind the meter” sales or interconnect feasibility to the grid, agreement structures and pricing.
 - Liquid transportation fuel markets will be evaluated for renewable diesel (RD) and/or sustainable aviation fuel (SAF) sales, destination markets and such as the Minnesota SAF Hub, infrastructure, pricing mechanisms, federal and state incentives along with offtake agreement structures.
 - CO₂ markets will be evaluated for counterparties for CO₂ capture, EOR market readiness/complexities, and sequestration.
- The project is expected to generate certain federal tax credits. These markets will be defined along with key transaction requirements such as insurance and brokerage fees.
- **Community Engagement Activities** may consist of outreach & listening sessions, Tribal or Indigenous engagement (where applicable), local workforce & economic impact assessment, stakeholder mapping & engagement planning.
- **Financial feasibility and Capital Readiness**
 Deliverables include:
 - Core development enablers - Evaluation of ability to fund / access to capital
 - Capital stack structuring (debt, equity, grants)
 - Financial modeling & sensitivity analysis
 - Preliminary lender and investor outreach
 - Creditworthiness or sponsor capability assessment
 - Funding strategy and financing roadmap
- A **Level 1 Project Schedule** will be developed showing key activities, timing and durations for overall project development through commissioning and startup.

Methodology:

Our methodology uses traditional phased project development with staged gates for decision making. The tasks being performed at this stage are commonly referred to as Front-End Loading (FEL) stage 2. Multiple design alternatives will be evaluated along with equipment and downstream technology providers. Appropriate strategies will be developed for regulatory processes, permitting, finance, supply, and offtake agreements.

Anticipated Results:

Successful completion of this project will enable Flickertail’s decision on whether to move forward with FEL-3 detailed engineering and design along with corresponding development efforts. This decision will be a risk-based analysis of financial projections, regulatory hurdles, capital cost projections, supply and offtake agreement confidence, finance markets and community feedback.

Facilities:

No specific facilities are required for this phase of development.

Resources:

Resources include engineering, regulatory, finance, and market experts from project partners. No specific equipment will be purchased during this FEL-2 stage of development.

Techniques to Be Used, Their Availability and Capability:

Standard engineering protocols and modeling software will be used for FEL-2 deliverables. The proposed team is committed to the project, and the availability of personnel is confirmed.

Environmental and Economic Impacts while Project is Underway:

No environmental impacts are anticipated during this phase of project development. Economic impacts will be determined by the outcome of this phase of project development.

Ultimate Technological and Economic Impacts:

Completion of this FEL-2 phase of project development may lead to the 1st commercial deployment of groundbreaking advancements in gasification technology and the 1st commercial production of negative carbon intensity energy products in the U.S. Economic impacts would consist of up to 100 construction jobs and up to 30 long term high paying production facility jobs in North Dakota, in addition to material purchases, property taxes and other typical facility build/operation contributions.

Why the Project is Needed:

The U.S. is in a time of ever-increasing market demands for energy which has less impact on the environment and climate. Additionally, North Dakota is on the precipice of breakthroughs on industry leading enhanced oil recovery techniques in tight shale formations that will create a significant demand for CO₂ that is economically produced and consumed in-state.

STANDARDS OF SUCCESS

Measurable deliverables of the project that will determine whether it is a success include:

- Engineering deliverables are incorporated into a financial proforma including yields, energy, utilities and capital budget, including Case A (electricity production) and Case B (liquid fuels) scenarios.
- Permitting analysis informs us of required steps and timeline needed for project development
- Siting analysis has identified 1 or more sites in North Dakota that have appropriate infrastructure availability and partners.
- Feedstock sourcing, supply agreement structures and market dynamics are identified

- Product slate has been determined; offtake agreement structures and market pricing dynamics are identified.
- Tax credit applicability is defined with necessary steps identified to obtain known approvals.
- Capital readiness determines project investment and finance strategy and potential partners.
- GREET analysis confirms carbon intensity scoring based on location, feedstock specifics, product market logistics, and engineering process modeling results.
- If project feasibility is favorable to move forward - an overall timeline and resources showing a plan to complete FEL-3 detailed engineering and design along with appropriate development steps.

The method to be utilized in measuring success will be to determine if the deliverables have been accomplished in sufficient detail to make an informed decision to move forward to FEL-3 stage detailed engineering and design along with corresponding project development steps.

Quarterly reports will be provided including activity progress updates, key learnings, financial status, and upcoming milestones. A Final report will be provided detailing the deliverables and conclusions, subject to our confidentiality request filed with this application.

Value to North Dakota & Anticipated Benefits

The Flickertail biomass-to-negative carbon intensity energy project has the potential to strengthen North Dakota's renewable energy leadership by providing a path to transition in-state research into a first-of-its-kind, scalable facility, diversifying the state's energy production and adding new supply.

Advances North Dakota-developed innovation

The project advances North Dakota-developed innovation by deploying a first-of-its-kind biomass-to-negative carbon intensity renewable energy production facility based on UND/EERC developed technology, transitioning research into commercial application. It strengthens research, development, and commercialization by accelerating the deployment of advanced biomass gasification and conversion technologies, reinforcing North Dakota's leadership in applied renewable energy R&D.

Opportunity for position as first Negative Carbon Intensity Energy (without CCUS)

The project produces negative-carbon intensity electricity, SAF, RD, and enables future hydrogen production, expanding the state's renewable energy portfolio. It demonstrates true negative-carbon intensity pathways without reliance on carbon capture and storage, establishing North Dakota as a leader in next-generation energy systems.

Supplying in-state CO₂ for EOR strengthens existing energy assets while supporting energy diversification that complements legacy industries. By converting low-value biomass feedstocks into high-value energy products, the project could create new opportunities for rural communities. It positions North Dakota as a domestic supplier of low-carbon SAF, supporting aviation decarbonization and national energy security.

Economic, Education & Workforce Impacts

The project drives economic development and workforce growth: Attracts private capital investment, creates skilled technical jobs, and supports long-term economic growth across construction, operations, and supply chains. potential for significant economic and workforce benefits, creating between 30 and 100 jobs during construction and 15 to 30 permanent operating positions, while supporting local manufacturing of core gasification equipment through partners such as Tri-Steel in Grand Forks.

Provides Commercial Pathways

The project establishes a scalable and replicable deployment model for future renewable energy facilities in North Dakota, multiplying the impact of public investment. As a flagship project, Flickertail enhances marketing and investment attraction, highlighting North Dakota's leadership in renewable energy innovation and next-generation fuels.

Near-Term Benefits (Project Development and Validation)

- **Commercialization of North Dakota innovation:** Advances UND/EERC-developed biomass gasification technology through detailed engineering, system integration, and pre-commercial validation.
- **Technical and market validation:** Generates critical performance, feedstock flexibility, lifecycle carbon intensity, and economic data to de-risk commercialization and inform future projects.
- **Research and workforce development:** Provides applied learning, training, and knowledge transfer opportunities for students, researchers, and energy professionals during development and early testing.
- **Policy and planning support:** Supplies state agencies and stakeholders with real-world data to inform renewable energy strategy, biomass utilization planning, and incentive design.
- **Foundation for investment:** Establishes the technical and commercial basis necessary to attract private capital and partnerships for construction and deployment.

Mid-Term Benefits (Construction and Commissioning)

- **Economic and workforce impacts:** Creates an estimated 30–100 construction jobs and supports skilled trades, engineering, and project management employment during buildout and commissioning.
- **In-state manufacturing and supply chain activity:** Supports local fabrication and manufacturing of core system components through North Dakota-based partners.
- **Infrastructure development:** Establishes new renewable energy and fuels infrastructure, expanding in-state production capacity for electricity and advanced biofuels.

- **System integration and operational readiness:** Demonstrates reliable commissioning of a first-of-its-kind facility, validating operability, safety, and performance at commercial scale.
- **Market enablement:** Produces initial volumes of electricity and low-carbon fuels, enabling early offtake discussions and market entry.

Long-Term Benefits (Operations, Replication, and Strategic Impact)

- **Sustained economic growth:** Creates 15–30 permanent skilled operating positions and supports long-term employment across operations, maintenance, and feedstock supply chains.
- **Rural economic development:** Generates ongoing revenue streams from low-value biomass feedstocks, strengthening rural communities, and agricultural supply networks.
- **Energy resilience and reliability:** Provides dispatchable, in-state renewable electricity that complements intermittent renewables and enhances grid reliability.
- **Scalable deployment model:** Establishes a replicable template for future biomass-to-energy and advanced fuels facilities in North Dakota, multiplying the impact of public investment.
- **Leadership in negative-CI energy:** Positions North Dakota as a national leader in net-negative lifecycle carbon intensity energy production and next-generation renewable energy systems.
- **Future clean energy pathways:** Enables expansion into hydrogen production and emerging clean energy markets based on validated syngas and conversion performance.

Alignment with NDIC Mission & Program Priorities

Overall, the project supports the NDIC Renewable Energy Program’s mission by promoting the efficient, economic, and environmentally sound development of North Dakota’s renewable resources through research, development, commercialization, and workforce training. By advancing the commercialization of a first-of-its-kind biomass-to-negative carbon intensity energy technology developed in North Dakota and scaling biomass gasification from pilot to commercial operations, the project has the potential to generate value from low-value feedstocks, create jobs, and support economic stability in the renewable energy sector.

The Flickertail project establishes a scalable pathway for producing electricity, sustainable aviation fuel (SAF), renewable diesel (RD), and CO₂, with the potential to diversify the state’s energy economy and expand market opportunities. As a flagship demonstration, the project is expected to help attract private investment, foster partnerships, and demonstrate the economic and environmental benefits of North Dakota’s renewable energy resources. By converting low-value biomass into high-value energy products with reduced lifecycle emissions, the project aligns economic growth with sustainability and positions North Dakota to advance its leadership in advanced renewable energy consistent with the Program’s mission and grant objectives.

BACKGROUND/QUALIFICATIONS

The Sandwich Gasification technology, a North Dakota–originated innovation, has advanced from invention to near-commercial readiness through inventor-led research and development, derisked with federal, university, and state funding, and further demonstrated and scaled by SET through manufacturing, deployment, and system validation. Flickertail—leveraging its experience and expertise in industrial renewable energy and commercial technology deployment—has assessed the technology, developed an initial pro-forma model, performed a preliminary regulatory analysis, is undertaking an FEL-1 stage engineering study with a feedstock selection of end-of-life railroad ties and undertaken project development activities, including site evaluation and operational planning.

The Sandwich Gasifier, invented and developed at the Energy & Environmental Research Center (EERC) at the University of North Dakota, reflects the state’s long-standing leadership in advanced energy innovation. Its patented, multi-zone “sandwich” configuration provides enhanced temperature control, tar cracking, and conversion efficiency, enabling reliable processing of diverse biomass and low-value waste feedstocks. The technology has been substantially derisked through prior federal and state investment, including support from the U.S. Department of Energy’s National Energy Technology Laboratory (DOE-NETL) and state programs, which facilitated laboratory development, pilot-scale validation, demonstration scale testing on varying feedstocks, and early commercialization efforts. Both scales are currently undergoing refinements for additional feedstock testing in early 2026. The intellectual property, now held by SET Singularity Energy Technologies, is protected by multiple issued domestic and international patents.

Through these efforts, the technology has been advanced toward commercial readiness, demonstrated in realistic operational settings, and refined to meet practical engineering requirements. Manufacturing pathways for commercial-scale systems have been evaluated, confirming that the technology can be produced efficiently, reliably, and at scale. These foundational developments have significantly reduced technical and commercial risk, strengthened confidence in operational viability, and established the essential groundwork for successful deployment in industrial renewable energy applications.

This combined effort has established a technically robust, scalable platform capable of producing negative-carbon-intensity energy products from low-value biomass, positioning the team to evaluate implementation of the first-of-its-kind flagship commercial facility in North Dakota. By building prior investment, rigorous derisking, and the Flickertail team’s commercial development expertise, the potential project is well-prepared to advance the state’s energy leadership, supply, and diversification goals.

Flickertail Resources, LLC

Flickertail Resources, LLC is a North Dakota–based project development and operating company advancing commercial deployment of biomass-derived, negative carbon intensity (CI) energy products. The company is developing a phased, commercial facility in North Dakota that will deploy an advanced gasification platform to convert sustainably sourced

biomass into renewable energy products. Leveraging the Sandwich Gasifier technology developed at the Energy & Environmental Research Center (EERC) and licensed through Singularity Energy Technologies, Flickertail aims to bridge the gap between proven technology and durable, in-state commercial operation.

Flickertail was founded by experienced executives with more than 30 years of leadership across highly regulated energy and technology sectors, including renewable fuels, biomass conversion, anaerobic digestion, ethanol production, nuclear, power generation, and industrial manufacturing. The team has successfully guided projects requiring extensive federal, state, and local compliance, securing permits, navigating environmental and safety regulations, and delivering assets that remain in operation today. Collectively, the team's efforts represent more than 2 billion gallons of annual fuels capacity and 500 MW of power generation with over \$2 billion in deployed capital.

The leadership at Flickertail has deep hands-on experience in project development cycles from site selection through permitting, engineering, financing, construction, commissioning, and long-term operations. The team's regulatory and policy experience includes engaging with permitting authorities, state agencies, local governments, and community stakeholders to align project design with environmental standards and policy objectives. This experience positions Flickertail to manage the complex technical, regulatory, and operational requirements of commercializing new renewable energy infrastructure in North Dakota.

Flickertail leadership has also structured bankable development and financing strategies across private, venture, and public markets, and established strategic partnerships with major industrial and commercial organizations to support market access and commercialization of innovative energy solutions. The team's previous achievements include industry-leading deployment strategies and first-of-a-kind initiatives that required deep coordination with regulators, OEM partners, and downstream markets.

The company prioritizes responsible stewardship, transparent stakeholder engagement, and long-term operational success, with a commitment to advancing North Dakota's leadership in renewable energy innovation and sustainable industry growth.

Kurt Swenson, *President*

Kurt Swenson, president of Flickertail, will serve as Lead, Point of Contact (POC), and Principal Investigator (PI) for all grant activities, providing hands-on leadership across advanced-stage project development, execution planning, and regulatory and commercial readiness. Kurt brings more than 30 years of executive and operational leadership across the refining, biorefining, and power sectors. Over his career, he has led and executed more than \$5 billion in capital projects spanning engineering, procurement, construction, commissioning, and multi-site operations. His experience includes direct responsibility for large-scale, highly regulated energy assets, including refining and biorefining facilities exceeding 2 billion gallons per year of aggregate fuel production capacity and utility-scale power and industrial energy infrastructure delivered through EPC and owner-operator roles.

Kurt has repeatedly taken first-of-a-kind and early-stage platforms from concept through commercial scale and consistent operation, combining deep owner-operator accountability with EPC execution leadership. Notably, he played a key role in scaling VeraSun Energy from startup to 16 operating biorefineries—all of which remain in operation—built and led EPC organizations delivering hundreds of millions of dollars in annual project volume, and completed engineering, construction, startup, and operations for new-technology facilities.

He is actively engaged in community and industry leadership across North Dakota, serving on numerous boards and advisory committees focused on construction, agriculture, landowner advocacy, workforce development, education, and community redevelopment. His involvement includes the North Dakota Construction Council, North Dakota Farm Bureau (Oliver County), northwest Landowners Association, Pheasants Forever, ND Energy Education, and Brick City Promoters, among others. He also brings practical experience in property development and agriculture, serving as Board Secretary for Mercer County Properties, Inc., President of Brush Creek Land Company, LLC, and as a cow-calf operator with S Bar S, LLC.

Robert Weir, *VP Engineering and Technology*

Robert Weir will serve as Lead for Engineering and Technology, overseeing FEL-1 and FEL-2 activities for the project, including technology assessment, front-end engineering, risk mitigation, and development of executable EPC pathways. He brings more than 30 years of experience leading engineering and project execution for capital-intensive energy and industrial infrastructure projects across nuclear power, electric generation, gasification, oil and gas, biogas, coal, methane, and emerging energy technologies.

Robert has held senior leadership roles on both the owner and EPC sides, with direct responsibility for front-end engineering, scope definition, constructability, contracting strategy, and risk management. He is a specialist in technology readiness assessment, FEL-level design development, and early identification of permitting, supply-chain, and constructability risks, ensuring projects are positioned for predictable execution and financing readiness. His background includes formal training and operational qualification through the U.S. Navy Nuclear Power Program, and he has consistently led multidisciplinary engineering organizations responsible for translating early-stage concepts into defined, executable projects. This experience positions him to lead FEL-1 and FEL-2 engineering activities with the rigor required to support advanced-stage, pre-FID project development under the grant.

Melissa Ullerich, *VP Corporate Affairs*

Melissa Ullerich is Vice President of Corporate Affairs and will oversee the stakeholder engagement and capital readiness activities. With more than 20 years of experience advising CEOs and C-suite leaders across innovation-driven organizations in highly regulated industries, her career spans energy, renewables, geothermal, biotechnology, and advanced technology platforms, with a focus on translating complex disruptive technologies into clear, credible narratives for investors, regulators, and stakeholders. She

has held senior leadership and advisory roles in both private and public companies, including VeraSun Energy, Valero Renewables, MetaFarms, Bushel, and SAB Bio, guiding organizations through company formation, financings, restructurings, mergers and acquisitions, and public-market transitions with disciplined governance and accountability.

Ms. Ullerich has developed and led corporate communications supporting more than \$5 billion in capital raised, including seed, venture financings, IPO, and SPAC transactions.

Participants

The project will be managed by Flickertail, with primary development assistance from:

<see appendix for participant bios and letters of support>

VAA

leading FEL-2 stage engineering deliverables

VAA is a nationally recognized engineering, planning and design firm with more than four decades of expertise and a highly specialized skill set. Established in 1978, VAA is committed to offering owners, architects, and contractors a genuine partnership to accomplish their business objectives and help them grow. From bulk commodity-handling facilities to manufacturing plants, waterfront distribution terminals to consumer retail outlets – and beyond – VAA’s breadth of technical expertise offers integrated insight and efficient execution.

Singularity Engineering Technologies (SET)

Sandwich Gasifier licensor, gasification island design and integration support to balance of plant

Based in Grand Forks, ND - SET is the patent-holder of the Sandwich Gasifier technology. Led by Dr. Nikhil Patel, who developed the Sandwich Gasifier while at the EERC, he has developed operating pilot and demonstration scale units to gain deep insights into optimization and capabilities of the internationally patented system. Its unique temperature profile at low operating pressures makes the Sandwich Gasifier an ideal system to efficiently gasify a variety of biomass and municipal waste streams with low to no tar production and ability to finely tune the composition of the syngas to desired outcomes.

SET will support the FEL-2 efforts by providing engineering and design information, process modeling, and integration support of the gasifier island with the balance of plant equipment for upstream and downstream processing.

EcoEngineers

Regulatory, GREET and market analysis support

EcoEngineers is an international consulting and advisory firm specializing in sustainable fuels, biomass certification, carbon accounting, and energy transition strategy.

Since its inception in 2009, EcoEngineers has supported the development of more than USD 4 billion in clean energy assets and managed sustainability and regulatory compliance for over 100 billion gallons of renewable fuels globally. The firm provides advisory services to state-owned enterprises, energy ministries, multilateral institutions, project developers, and financial stakeholders engaged in the deployment of low-carbon fuels.

EcoEngineers has developed and supported more than 500 approved fuel pathways across global regulatory programs and has extensive experience navigating complex sustainability and market-access requirements. The firm maintains active technical engagement with key regulatory and policy institutions shaping international biofuel and SAF markets, including the United States Environmental Protection Agency (EPA), U.S. Department of Energy (DOE), California Air Resources Board (CARB), Environment and Climate Change Canada (Clean Fuel Regulations and British Columbia programs), and the European Commission, as well as with private-sector market participants operating under these frameworks.

EcoEngineers' multidisciplinary team includes over 80 engineers, scientists, analysts, and auditors, with more than 16 years of continuous operation and an established presence across North America, Brazil, Latin America, Europe, and Asia.

Through its parent company LRQA, EcoEngineers also leverages extensive global experience in supply-chain verification, traceability systems, auditing, and sustainability assurance, strengthening the robustness and credibility of proposed certification and MRV approaches.

MAP General Mechanical Contractors (MAP)

Total installed cost estimating and schedule development, project support and project controls
MAP is a heavy industrial fabricator and EPC contractor specializing in the chemical manufacturing, oil and gas, and power sectors. With nearly 50 years of corporate experience and individuals with over \$10 billion in project experience, MAP brings deep experience not only in industries related to this project, but significant North Dakota experience. MAP's North Dakota office will support the FEL-2 stage development activities with construction cost estimating, schedule development, project controls, and other project support tasks.

Stantec

Permitting Analysis

Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. Their professionals deliver the expertise, technology, and innovation communities need to manage aging infrastructure, demographic and population changes, the energy transition, and more. More than 34,000 employees strong, Stantec has been providing engineering services since 1954. Stantec will be supporting this project with a rigorous permitting analysis of federal, state, and local environmental permitting requirements.

Mickelson & Company

Tax Credits

Established in 2005, Mickelson & Company specializes in arranging industrial infrastructure and renewable energy tax-motivated financing solutions. Providing insight into tax credit financing, valuations, counter-party requirements and insurance needs, Mickelson will assist Flickertail in this key aspect of its proforma analysis.

RSM

Tax Advisory–Federal Credits and Incentives

RSM is a key advisory partner with national leadership in federal tax credits and incentives. The firm provides expert advisory support across a wide range of issues related to research and development (R&D) tax credits, energy-related credits, and other federal incentives. RSM has extensive experience conducting tax credit studies, supporting compliance, and planning, and managing Internal Revenue Service examination defense across multiple industries, including manufacturing, renewable fuels, and food processing. This expertise supports the identification, maximization, and substantiation of federal incentives, ensuring projects are appropriately structured, compliant, and aligned with funding and reporting requirements.

MANAGEMENT

Flickertail's primary management tools will be scheduled and budgeted.

A project schedule for FEL-2 and development activities will be developed from the project kickoff and organized in a work breakdown structure. The tasks will be progressed weekly with percentage complete and the schedule updated. Tasks that are not progressing as expected will be highlighted and addressed.

A detailed budget will be updated monthly to track spending and make cost projections by category. Budget categories tracking outside of expectations will be highlighted and addressed.

Weekly progress meetings will occur between Flickertail and major partners to assess progress, outstanding issues, and upcoming milestones.

TIMETABLE

Key Milestones and anticipated dates:

Milestone		Completion Date
1	FEL-2 Kick-off	June 1, 2026
2	Engineering Deliverables Complete	December 1, 2026
3	Regulatory Analysis Complete	January 1, 2027
4	Permitting Analysis Complete	February 1, 2027
5	GREET Analysis Complete	February 1, 2027
6	Site Selection Ranking and Target List	January 1, 2027
7	Feedstock / Products Market Analyses	February 1, 2027
8	Capital Readiness Assessment	March 1, 2027
9	Total Installed Cost Estimate	March 1, 2027
10	Overall Level 1 Project Schedule	March 1, 2027
FINAL REPORT		APRIL 1, 2027

BUDGET

	Budget	Amount from REP Grant	Cash Contribution
Engineering	955,000	250,000	705,000
Regulatory and Tax Credit Analysis	250,000	175,000	75,000
Site Selection and Stakeholder Engagement	290,000		290,000
Finance, Feasibility & Capital Readiness	317,500		317,500
Corporate Affairs & Communications	225,000		225,000
Legal and Professional Support	195,000		195,000
Administrative	15,000		15,000
Feedstock Supply and Product Offtake Analysis	160,000	75,000	85,000
Project Management and Accounting	392,500		392,500
TOTAL	2,800,000	500,000	2,300,000

PATENTS/RIGHTS TO TECHNICAL DATA

No information submitted in this application is requested to be confidential. We have submitted a Confidentiality request with our application. Certain information in the recurring reports and final report may be submitted under confidential status, including,

but not limited to financial projections, specifics to supply and offtake agreements, certain engineering modeling details and detailed cost estimates.

STATUS OF ONGOING PROJECTS (IF ANY)

Not Applicable

STATE PROGRAMS AND INCENTIVES

Flickertail Resources LLC has not received any state program funding or incentives to date.