



Environment and Natural Resources Trust Fund

2027 Request for Proposal

General Information

Proposal ID: 2027-396

Proposal Title: enVerde Advanced Sustainable Technology

Project Manager Information

Name: Dave Goebel

Organization: en Verde LLC

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Email: dave.goebel@enverdellc.com

Project Basic Information

Project Summary: enVerde LLC will design, construct, commission, and operate a commercial demonstration facility using its patented eVp™ process, converting woody biomass into heat and syngas, supporting multiple sustainable applications, including SAF.

ENRTF Funds Requested: \$6,133,000

Proposed Project Completion: June 30, 2030

LCCMR Funding Category: Energy (E)

Project Location

What is the best scale for describing where your work will take place?

Region(s): NW

What is the best scale to describe the area impacted by your work?

Statewide

When will the work impact occur?

During the Project and In the Future

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

Minnesota produces abundant woody biomass – forestry residues, mill waste, and other organic material – yet lacks scalable, cost-effective technology to convert this resource into clean energy. Current biomass conversion methods are slow, operationally complex, and require significant feedstock pre-processing, limiting their commercial viability. Meanwhile, Minnesota has enacted a mandate to achieve sustainable aviation fuel (SAF) production by 2030, creating urgent demand for proven, in-state production pathways.

enVerde's eVp™ technology offers a breakthrough solution: an instantaneous, catalytic flash volatilization process that converts woody biomass into high-purity syngas in milliseconds, with no external thermal energy required once underway and no significant pre-processing of feedstock. Validated techno-economic and life-cycle analyses confirm strong economic returns (ROI exceeding 20%) and a carbon intensity that is 75% lower than conventional jet fuel – far exceeding SAF regulatory thresholds. Despite this promise, the technology remains at TRL 4 and requires a demonstration facility to prove commercial readiness.

What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.

enVerde LLC seeks funding to bring a breakthrough, already-validated technology to commercial demonstration scale. The eVp™ process has been rigorously evaluated under an AFWERX Phase I grant: techno-economic analysis confirmed return on investment exceeding 20% with positive cash flow from the outset – even under worst-case cost assumptions – and life cycle analysis conducted in partnership with the National Lab of the Rockies found carbon intensity values of 15 or below, representing a 75% reduction versus conventional jet fuel and substantially exceeding SAF regulatory thresholds. These results validate eVp™ as both economically viable and environmentally transformative. What remains is proving the technology at commercial scale.

ENRTF funding will enable enVerde to design, engineer, build, commission, and operate a demonstration facility near Bemidji, Minnesota. Over a 36-month, two-phase project, enVerde will: (1) construct a purpose-built lab-scale unit to screen feedstocks, refine operating parameters, and de-risk scale-up; and (2) design and construct a facility capable of processing approximately 40 metric tons per day of Minnesota woody biomass. Key deliverables are an operating eVp™ facility producing high-purity syngas for power generation, heat, and SAF upgrade – and a showcase for future partners, investors, and customers from across Minnesota and beyond.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

This project will result in: (1) an operating eVp™ demonstration facility converting Minnesota woody biomass – an abundant, renewable natural resource – into high-purity syngas with near-zero char or waste byproduct; (2) validated production of syngas suitable for power generation, heat, and SAF precursor, directly supporting Minnesota's 2030 SAF mandate; (3) a proven pathway to reduce reliance on fossil fuels and decrease carbon emissions from energy and transportation sectors; and (4) a replicable commercial model for responsible, low-waste utilization of Minnesota's forest biomass resources in a manner that conserves and enhances the state's natural environment.

Activities and Milestones

Activity 1: Lab-Scale Unit Construction, Feedstock Screening, and eVp™ Process Optimization

Activity Budget: \$1,070,000

Activity Description:

Objective: De-risk scale-up of the eVp™ process by generating validated operating data at lab scale using woody biomass feedstocks targeted for the Bemidji-area demonstration facility.

Tasks: enVerde will select a partner with appropriate expertise (potentially the National Lab of the Rockies) to construct a purpose-built lab-scale eVp™ unit optimized for enVerde’s catalytic flash volatilization process. This unit will eliminate constraints of retrofitting existing equipment and enable precise process development. Tasks include: (1) catalyst selection and evaluation across commercially available heterogeneous fixed-bed materials; (2) feedstock characterization and screening of Minnesota woody biomass for moisture content, composition, and eVp™ suitability; (3) iterative process runs to refine operating parameters including reactor temperature (nominally 750°C), feedstock feed rates, and oxygen introduction; and (4) syngas quality analysis to confirm high-purity output.

Outputs: A validated lab-scale operating dataset, optimized process parameters, and a feedstock suitability report. These outputs directly inform the engineering design of the Phase II demonstration facility. Outcomes will be evaluated against benchmarks from prior TEA/LCA analyses, including syngas purity, carbon conversion rate, and catalyst longevity.

Activity Milestones:

Description	Approximate Completion Date
Lab-scale unit construction completed and operational	April 30, 2028
Minnesota woody biomass feedstocks screened and characterized	July 31, 2028
Catalyst selected; optimized operating parameters documented	August 31, 2028
High-purity syngas production confirmed at lab scale	September 30, 2028
Phase I lab data report delivered; design parameters finalized for Phase II	October 31, 2028

Activity 2: Site Confirmation, Environmental Permitting, and Full eVp™ Demonstration Facility Engineering Design

Activity Budget: \$2,000,000

Activity Description:

Objective: Secure a permitted site in the Bemidji, Minnesota area and complete full engineering design of the eVp™ demonstration facility, enabling construction to begin immediately upon permitting approval.

Tasks: This activity runs concurrently with Activity 1 and includes: (1) evaluation and selection of a Bemidji-area site with appropriate zoning, biomass feedstock access, utility connections, and road access for feedstock delivery; (2) engagement with state and local regulators to obtain all required environmental, air quality, and construction permits; (3) full engineering design of the eVp™ system, beginning with the gas compressor (which has the longest procurement lead time of up to one year); (4) design of the pilot plant (kg/hour feed rate) and commercial demo plant (~40 MT/day capacity); and (5) initiation of capital equipment procurement, particularly long-lead items.

Outputs: A fully permitted site, complete engineering drawings, equipment specifications, and an executed procurement plan. Outcomes will be evaluated by regulatory milestone completion and adherence to the engineering timeline, ensuring Activity 3 construction can begin on schedule.

Activity Milestones:

Description	Approximate Completion Date
Bemidji-area site selected; letter of intent or lease executed	September 30, 2027
Title review and appraisal completed for selected parcel(s)	November 30, 2027
Survey completed; ESA Phase 1 checklist and records check initiated (note: initial ESA likely completed)	January 31, 2028
SHPO consultation completed; cultural/historic resource review documented	January 31, 2028
Predesign Review completed through the Minnesota Department of Administration	April 30, 2028
All required environmental and construction permits obtained	June 30, 2028
All construction funds legally secured	July 31, 2028
Notice of Funding Restriction recorded on property	August 31, 2028
Gas compressor and long-lead equipment procurement orders placed	August 31, 2028
Full eVp™ engineering design and drawings completed	October 31, 2028
Capital equipment procurement plan finalized; all orders placed	November 30, 2028

Activity 3: Demonstration Facility Construction, Commissioning, and Initial Operations

Activity Budget: \$3,063,000

Activity Description:

Objective: Construct, commission, and launch the eVp™ demonstration facility at the Bemidji-area site, producing high-purity syngas from Minnesota woody biomass and demonstrating commercial readiness of the technology.

Tasks: Using design outputs from Activity 2 and validated operating parameters from Activity 1, enVerde will: (1) procure and install all remaining capital equipment, including the cylindrical catalytic reactor, gas compressor, syngas cooling system (water reflux or glycol), and storage tanks; (2) construct the facility building and feedstock handling infrastructure; (3) hire and train operations staff; (4) commission both the pilot plant and the 40 MT/day commercial demo plant; and (5) conduct initial production runs using Minnesota woody biomass, verifying syngas purity, energy output, and system performance against design benchmarks.

Outputs: A fully operational eVp™ demonstration facility producing syngas from woody biomass. Impact: the facility provides a real-world showcase for investors, partners, and potential future licensees, and generates initial revenues from power and heat. Outcomes will be measured by syngas purity, throughput rates, system uptime, and carbon intensity compared to TEA/LCA benchmarks.

Activity Milestones:

Description	Approximate Completion Date
test	June 30, 2028
Facility construction substantially complete; equipment installed	June 30, 2029
Operations staff hired and trained; safety protocols established	August 31, 2029
Pilot plant commissioned; first syngas produced from woody biomass	October 31, 2029
Commercial demo plant commissioned; 40 MT/day throughput achieved	February 28, 2030
Syngas quality and carbon intensity verified against TEA/LCA benchmarks	June 30, 2030
Certificate of Occupancy or equivalent obtained	June 30, 2030
Facility open for intended use; initial operations underway	June 30, 2030

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Eric Schenck	Minnesota Forest Resources Council	Help identify feedstock sources.	No
Gregg Mast	Clean Energy Economy Minnesota	Represent clean energy orgs in the marketplace; lobbying; educating for state legislature	No
Andy Craner	Rayonier - Bemidji Lumbermill	Feedstock supplier; plant manager; potential customer	No
David Hengel	Greater Bemidji, Inc.	Site owner; economic development; identifying opportunities	No
Julia Silvas	Greater MSP (Minnesota SAF Hub)	Heads SAF Hub within the Greater MSP org; point person in the state for getting SAF produced in the state by 2030	No
Steven Rowland	National Lab of the Rockies (NLR)	Head of biomass conversion section at NLR	No

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.

enVerde LLC is committed to broad and transparent sharing of project results with Minnesota stakeholders, policymakers, resource managers, and the public. Our dissemination strategy encompasses four primary channels:

Facility as a Living Showcase: The Bemidji-area demonstration facility will serve as an open showcase for visitors interested in woody biomass utilization and clean energy production. enVerde anticipates hosting site tours for Minnesota state agency staff, forestry and natural resource managers, tribal representatives, agricultural and biomass producers, university researchers, and economic development organizations. The facility will demonstrate in real time how Minnesota's abundant woody biomass – a natural resource that is currently underutilized or managed as waste – can be converted into clean energy and sustainable aviation fuel.

Stakeholder Engagement and Presentations: enVerde will present project findings at relevant Minnesota and regional conferences, including those focused on forestry, bioenergy, clean transportation, and natural resource management. We will also engage directly with the Minnesota Department of Natural Resources, the Minnesota Pollution Control Agency, and other agencies whose resource management decisions may benefit from eVp™ technology.

Project Reports and Data Sharing: enVerde will produce periodic progress reports and a final project report documenting methodology, operating data, feedstock performance findings, and outcomes. Where appropriate and consistent with intellectual property protections, process performance data will be made available to researchers and resource managers who can apply results to advance biomass utilization in Minnesota.

Public Communications: Project updates will be shared via enVerde's website and social media channels in plain language accessible to a general Minnesota audience. All materials related to this project will acknowledge the Environment and Natural Resources Trust Fund in accordance with ENRTF Acknowledgment Guidelines, including use of the trust fund logo and required attribution language.

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?

Upon completion, the demonstration facility will generate ongoing revenue through power sales, heat sales, and ultimately SAF sales in the marketplace. This operating revenue will fund continued operations without state support. enVerde also plans to leverage the facility to attract private investment partners and commercial customers, using demonstrated production performance as the basis for securing financing for full-scale commercial plants in Minnesota and beyond. enVerde envisions this facility as the first of many full-size commercial plants, with future plants funded through private capital, commercial revenues, and additional federal and state clean energy programs.

Project Manager and Organization Qualifications

Project Manager Name: Dave Goebel

Job Title: Chief Executive Officer

Provide description of the project manager's qualifications to manage the proposed project.

Dave Goebel, CEO of enVerde LLC, brings decades of executive experience in energy, manufacturing, and catalysis directly relevant to this project. A former executive at Mobil, ExxonMobil, and MeadWestvaco (now WestRock), Goebel has deep expertise spanning manufacturing, R&D, sales, marketing, and supply chain management.

At Mobil, Goebel led multidisciplinary teams of processing, civil, electrical, mechanical, and chemical engineers across the oil and chemical industries. He was named Mobil's Marketing and Refining Operations Employee of the Year and was Mobil's youngest executive at the time of his appointment – recognitions that reflect both his technical credibility and his ability to deliver results in complex, capital-intensive environments.

Most critically for this project, Goebel oversaw ExxonMobil's manufacturing assets for catalyst production – the foundational technology underlying enVerde's eVp™ process. As a marketing and business manager for an international division of Mobil Chemical, he led the commercialization of catalyst-based processes; as a manufacturing manager, he directed facilities that produced and applied catalysts across multiple refining and chemical applications. This hands-on experience with catalyst systems at commercial scale is directly transferable to the eVp™ demonstration facility enVerde seeks to build.

Organization: en Verde LLC

Organization Description:

enVerde LLC is a Minneapolis, Minnesota-based clean energy company developing transformational waste-to-energy technology. Founded by a team of scientists, engineers, and business professionals, enVerde is dedicated to improving how communities worldwide generate clean energy and green chemicals by converting carbon-based waste streams into valuable resources.

At the core of enVerde's approach is its proprietary eVp™ (enVerde Processing) technology – a catalyst-driven, advanced gasification process that efficiently converts organic waste feedstocks into syngas, heat, and green chemicals. Unlike conventional incineration or large-scale gasification systems, eVp™ operates at a smaller footprint, offers feedstock flexibility, and can be configured as a mobile system deployed directly at the source of waste generation.

enVerde serves a broad range of markets including agriculture, industrial, commercial, municipal, government and military, transportation, island communities, and underserved populations globally. Its technology supports applications

ranging from power generation and building heating to sustainable aviation fuels, hydrogen production, and green chemical manufacturing.

enVerde's mission is to demonstrate that economic development and environmental performance are not competing goals – but complementary ones. By turning waste into a resource, enVerde helps communities lower carbon footprints, reduce costs, and build energy self-sufficiency.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Project Manager		Comprehensive project and plant management			35%	3		\$162,000
Administrative Assistant		Support in plant administration			35%	0.19		\$56,160
Lead Operator		Oversee all plant operations			35%	0.14		\$84,240
Assistant Lead Operator		Direct report to Lead Operator, supporting in plant operation oversight.			35%	0.14		\$77,220
Operator 1		Support in operations oversight.			35%	0.14		\$70,200
Operator 2		Support in operations oversight.			35%	0.14		\$70,200
Operator 3		Support in operations oversight.			35%	0.14		\$70,200
Engineer/Technical		Oversee engineering and technical aspects of plant.			35%	0.19		\$114,750
CEO		Oversee entirety of project, partnerships, reporting.			35%	3		\$202,500
CTO		Manages engineering teams and ensures technology solutions align with business goals			35%	3		\$101,250
Lead Business & Engineering		Technical and operations management			35%	0.27		\$67,500
							Sub Total	\$1,076,220
Contracts and Services								
Connie Lausten	Service Contract	Advising on technical and regulatory aspects of the project.				0.27		\$40,000
Sales & Marketing	Service Contract	Direct sales and marketing initiatives for demonstration plant.				0.33		\$65,000
Fractional CFO	Service Contract	Oversee financial expenditures and reporting.				0.06		\$40,000
Fractional Accountant	Service Contract	Oversee and account for daily expenditures.				3		\$144,000
Fractional Admin	Service Contract	Support in plant administration duties.				3		\$72,000
EPC & Engineering	Service Contract	For the design and construction of the demonstration facility.				3		\$400,000
							Sub Total	\$761,000

Equipment, Tools, and Supplies								
							Sub Total	-
Capital Equipment								
		Building site preparation	Any civil work, slab/foundation work, road/pavement, feedstock storage pad	X				\$300,000
		Building	Physical building for all process equipment, control room, offices, locker room, rest rooms; safety systems (fire suppression and gas monitoring)	X				\$900,000
		Feedstock storage & handling	Feedstock storage bins, conveying equipment	X				\$800,000
		Reactor Section	Fabricated catalytic reactor (2), catalyst loading platform, jacketed to capture heat, syngas powered, with analytical instrumentation	X				\$700,000
		Syngas Storage	Gas compressor, storage vessels, truck loading station.	X				\$650,000
		Pilot Plant	Skid mounted lab scale system	X				\$500,000
							Sub Total	\$3,850,000
Acquisitions and Stewardship								
	Fee Title Acquisition	Acres: 3.7 Parcels: 1						\$139,050
							Sub Total	\$139,050
Travel In Minnesota								
	Miles/ Meals/ Lodging	CTO visits to Bemidji	Participate in technical areas of the pilot and demonstration plants					\$19,477
	Conference Registration Miles/ Meals/ Lodging	SAF National Conference	Gather information on sustainable aviation fuel engineering, participants, suppliers, vendors, networks, speakers					\$2,400
	Conference Registration Miles/ Meals/ Lodging	International Biomass Conference	Gather information on biomass engineering, participants, suppliers, vendors, networks, speakers					\$2,400

	Miles/ Meals/ Lodging	CEO visits from HQ to Bemidji; 12 trips per year, 3 years; 48nights/yr in hotel	enVerde HQ to Bemidji and return;					\$40,545
	Miles/ Meals/ Lodging	Staff plant visits; 18 trips; 81 hotel days; 81 meal days	Visits by enVerde management team to visit site and oversee project activities: startup.					\$22,455
							Sub Total	\$87,277
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
		Contingency for construction	% as advised in addendum					\$219,453
							Sub Total	\$219,453
							Grand Total	\$6,133,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Capital Equipment		Building site preparation	This work is critical to realizing the demonstration plant. Additional Explanation : All of this work is foundational to the demonstration plant and will be used throughout the life of the plant.
Capital Equipment		Building	These building needs are critical for the site and its staffing. Additional Explanation : All of this equipment is vital to the site and will be used for the program throughout its useful life.
Capital Equipment		Feedstock storage & handling	This is critical equipment for the demonstration facility. Additional Explanation : This is critical to the process flow of the demonstration facility and will be used for this program throughout its useful life.
Capital Equipment		Reactor Section	This custom fabricated reactor is core to the project and its technology -- there is no demonstration facility without it. Additional Explanation : This is the core of the technology and will be used for the demonstration facility throughout its useful life.
Capital Equipment		Syngas Storage	Proper syngas storage units are critical to the demonstration facility site. Additional Explanation : This will be used solely for the demonstration facility, ensuring proper and safe syngas storage.
Capital Equipment		Pilot Plant	This equipment is critical to ensure proper scaling to a demonstration facility. Additional Explanation : This equipment is critical for a front-end loading engineering process, ensuring proper scale-up. This will be used for the same program throughout its useful life.

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	-
Non-State				
In-Kind	Feedstock	In-kind feedstock (woody biomass) for plant.	Pending	\$117,530
In-Kind	In-kind salaries/compensation	In-kind support by advisor	Secured	\$16,000
In-Kind	In-kind salaries/compensation	In-kind support by team member.	Secured	\$75,000
In-Kind	In-kind salaries/compensation	In-kind support by team member.	Secured	\$43,750
Cash	Government Requirement for Advanced Power and Energy (GRAPE) Funding	To support the construction of a demonstration facility.	Potential	\$1,067,530
			Non State Sub Total	\$1,319,810
			Funds Total	\$1,319,810

Total Project Cost: \$7,452,810

This amount accurately reflects total project cost?

Yes

Acquisition and Restoration

Parcel List

Name	County	Site Significance	Activity	Acres	Miles	Estimated Cost	Type of Landowner	Easement or Title Holder	Status of Work
8005751	Beltrami		Fee Title	1.4	-	\$54,000	Private		Has Not Begun
8006880	Beltrami		Fee Title	3.7	-	\$135,000	Private		Has Not Begun
8006886	Beltrami		Fee Title	1.7	-	\$64,000	Private		Has Not Begun
Totals				6.8	0	\$253,000			

Fee Acquisition

1. Describe the selection process for identifying and including proposed parcels on the parcel list, including an explanation of the criteria and decision-making process used to rank and prioritize parcels.

Parcels were identified in the Bemidji area of Beltrami County based on a set of operational and logistical criteria directly tied to the requirements of the eVp™ demonstration facility. Primary selection criteria included: (1) proximity to and connectivity with existing road infrastructure capable of supporting daily commercial truck traffic; (2) availability of existing utilities, including electrical service and water access, to minimize site development costs and construction timeline; (3) a site configuration that accommodates a drive-through truck traffic pattern, allowing feedstock delivery vehicles to enter, unload, and exit in the same direction without requiring turnaround maneuvers; (4) sufficient area to house the core processing equipment (approximately two to three semi-truck trailer footprints for equipment, plus additional space for feedstock storage); and (5) parcel size and cost commensurate with the facility's modest land requirements. Parcels were ranked based on how well they satisfied these criteria in combination, with particular weight given to truck access geometry and existing infrastructure.

2. List all adopted state, regional, or local natural resource plans in which the lands included in the parcel list are identified for the acquisition purposes you propose. Include the URL to the plan if one is available.

This project involves the siting of a clean energy demonstration facility rather than land conservation. The parcels listed are not identified in adopted natural resource plans for acquisition purposes; rather, they were selected based on operational siting criteria described above.

3. For any parcels acquired in fee title, a restoration and management plan must be prepared. Summarize the components and expected outcomes of restoration and management plans for parcels acquired by your organization, how these plans are kept on file by your organization, and overall strategies for long-term plan implementation, including how long-term maintenance and management needs of the parcel will be financed into the future.

Parcels acquired in fee title under this project will be maintained and managed as active operational sites for the eVp™ demonstration facility throughout the project period and beyond. Rather than requiring a traditional ecological restoration and management plan, these parcels will be subject to ongoing operational stewardship consistent with their use as a clean energy production facility.

Long-term site management will include routine maintenance of facility infrastructure, feedstock storage areas, access roads, and truck circulation paths to ensure safe and efficient daily operations. enVerde LLC will maintain all parcels in compliance with applicable local, state, and federal environmental, zoning, and land use requirements. Any portions of the parcel not occupied by facility infrastructure will be maintained in a clean and orderly condition consistent with the surrounding land use context.

Long-term financing of site maintenance and management will be supported by facility operating revenues – including power sales, heat sales, and eventual SAF sales – as described in the project's long-term implementation and funding plan. enVerde's intent is for the facility to become self-sustaining through these revenue streams, ensuring that ongoing site management obligations are met without reliance on additional public funding. Documentation related to site management will be maintained in enVerde's project records and made available to LCCMR upon request.

4. For each parcel to be conveyed to a State of Minnesota entity (e.g., DNR) after purchase, provide a statement confirming that county board approval will be obtained.

No parcels are proposed for conveyance to a State of Minnesota entity; this requirement is not applicable.

5. If applicable (see M.S. 116P.17), provide a statement confirming that written approval from the DNR Commissioner will be obtained 10 business days prior to any final acquisition transaction.

enVerde LLC confirms that, to the extent required under M.S. 116P.17, written approval from the DNR Commissioner will be obtained no fewer than 10 business days prior to any final acquisition transaction.

Attachments

Required Attachments

Map

File: [fc0392e7-4a0.pdf](#)

Alternate Text for Map

Aerial maps of 3 potential parcels....

Financial Capacity

Title	File
Financial Capacity Note	a6960992-c92.pdf

Supplemental Attachments

Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other

Title	File
Resolution Letter	161704fc-d30.pdf
Budget Addendum	a945efee-95f.pdf
Concept Design - enVerde Demonstration Facility	708b1757-2f2.pdf
Letter of Support - MN SAF Hub	bcd996e6-2b5.pdf
Letter of Support - Greater Bemidji	defe2d25-346.pdf
Letter of Support Minnesota Forest Council	0d68fed9-4df.pdf
Letter of Support Rayonier-Bemidji	76833e40-9e0.pdf
Clean Energy Economy Letter of Support	fc506ecf-3ea.pdf
enVerde LLC Construction Questionnaire	6b3ead16-50b.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

Yes: Fee Acquisition,

Do you understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

Yes, I understand the Commissioner's Plan applies.

Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?

Yes

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

Yes

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF? If so, describe here (1) the source and estimated amounts of any revenue and (2) how you propose to use those revenues:

Yes, enVerde LLC anticipates that the demonstration facility funded in part by this grant will generate revenue through multiple streams once operational. The primary sources include: (1) electricity sales from syngas-powered generation, estimated at rates consistent with current Minnesota wholesale and retail power markets; (2) heat sales to nearby industrial or commercial off-takers; and (3) longer-term, sustainable aviation fuel (SAF) sales as the syngas

upgrade pathway is validated and commercialized.

enVerde requests that revenues generated during the grant period be reinvested into the project rather than returned to the ENRTF. The demonstration facility will require ongoing operational expenditures – including feedstock procurement, labor, catalyst replenishment, and equipment maintenance – that revenues from early-stage power and heat sales would directly offset. Reinvesting these revenues into operations would enable the facility to sustain itself during commissioning and early production, reduce the need for additional public funding, and accelerate the path to full commercial viability. This self-sustaining model is central to enVerde's long-term strategy and would maximize the return on the State's investment by enabling the facility to reach the revenue-generating scale needed to attract private capital for future full-size commercial plants in Minnesota.

Does your project include original, hypothesis-driven research?

Yes

Does the organization have a fiscal agent for this project?

No

Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration?

Yes

Is the purpose of the acquisition for construction of a building(s), trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration, either now or in the future?

Yes

Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services (as defined in Minnesota Statutes section 299C.61 Subd.7 as "the provision of care, treatment, education, training, instruction, or recreation to children")?

No

Provide the name(s) and organization(s) of additional individuals assisting in the completion of this proposal:

N/A

Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements

Yes, I understand