

An aerial photograph of a rural landscape. In the foreground, there is a lush green field of crops. Behind it, a large, flat, brown field stretches across the middle ground. In the background, there are several large, dark, cylindrical industrial tanks and some smaller buildings. The sky is blue with scattered white clouds.

Nature Energy Roberts Conditional Use Permit and Variance Applications

**Local Approvals Requested from
Village of Roberts for Nature
Energy US Ventures 3, LLC**

Thursday, March 3, 2022



Introductions – Nature Energy Team

Rachel Smith, PMP

Arcadis – Project Manager



Ray Davy

AWEO - President

Dean Doornink

AWEO – Dairy Farmer

Bob Peplin, PE

AWEO - Technical Support

Kim Bremmer

AWEO - Public Relations

Dean Fairchild

AWEO - Agronomy

Jesper Nielsen

Nature Energy – VP Business Development

Ben Hach

Nature Energy – Project Manager

Meeting Purpose

Nature Energy – Who We Are & What We Do

Roberts Project Overview

Review Nature Energy Roberts CUP Application

Review Variance Request

Address questions/concerns from the Village Planning Commission

Discuss Next Steps



Nature Energy - Who We Are and What We Do





Benefits of Nature Energy Roberts (NER) project for the Village of Roberts

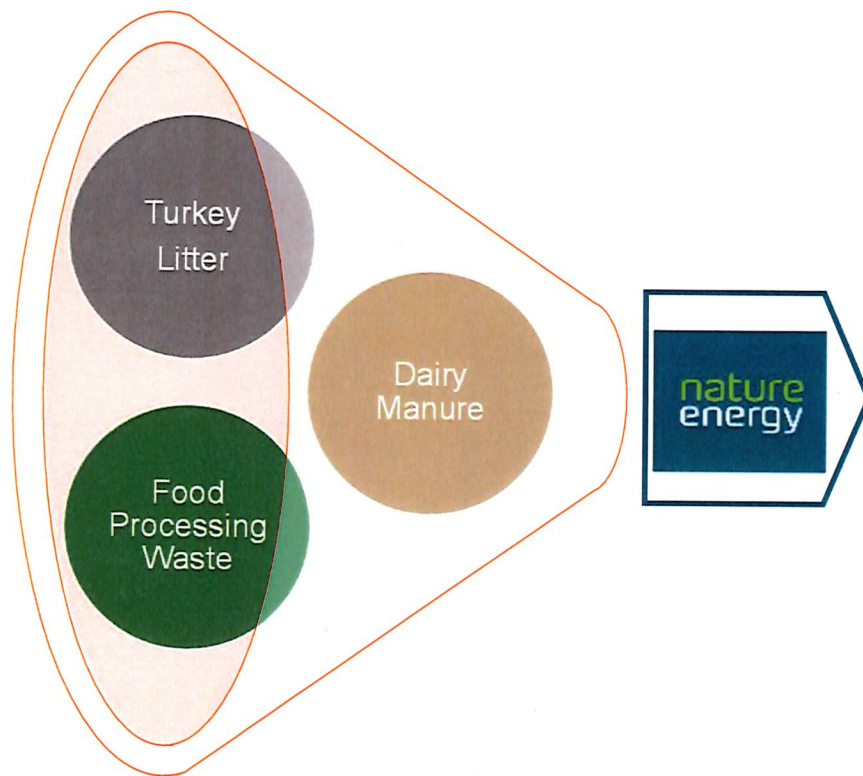
- Regional conversion of local manure to a renewable energy fuel and natural fertilizer products.
- Help to improve the regional groundwater quality issues caused by excessive nitrate/nitrite concentrations.
- Providing an annual "Payment in Lieu of Taxes" (PILOT) agreement with the Village.
- Multiple direct/indirect job opportunities, construction, supplier and permanent technical jobs.
- Economic gain to local commercial/business operations.
- Improvements to 130th Street.
- Nature Energy will evaluate opportunities to utilize Twin Lakes as a nearby water source.



WI and MN representatives visited
Nature Energy plants in Denmark
September 21 – 24 of 2021



Nature Energy Process



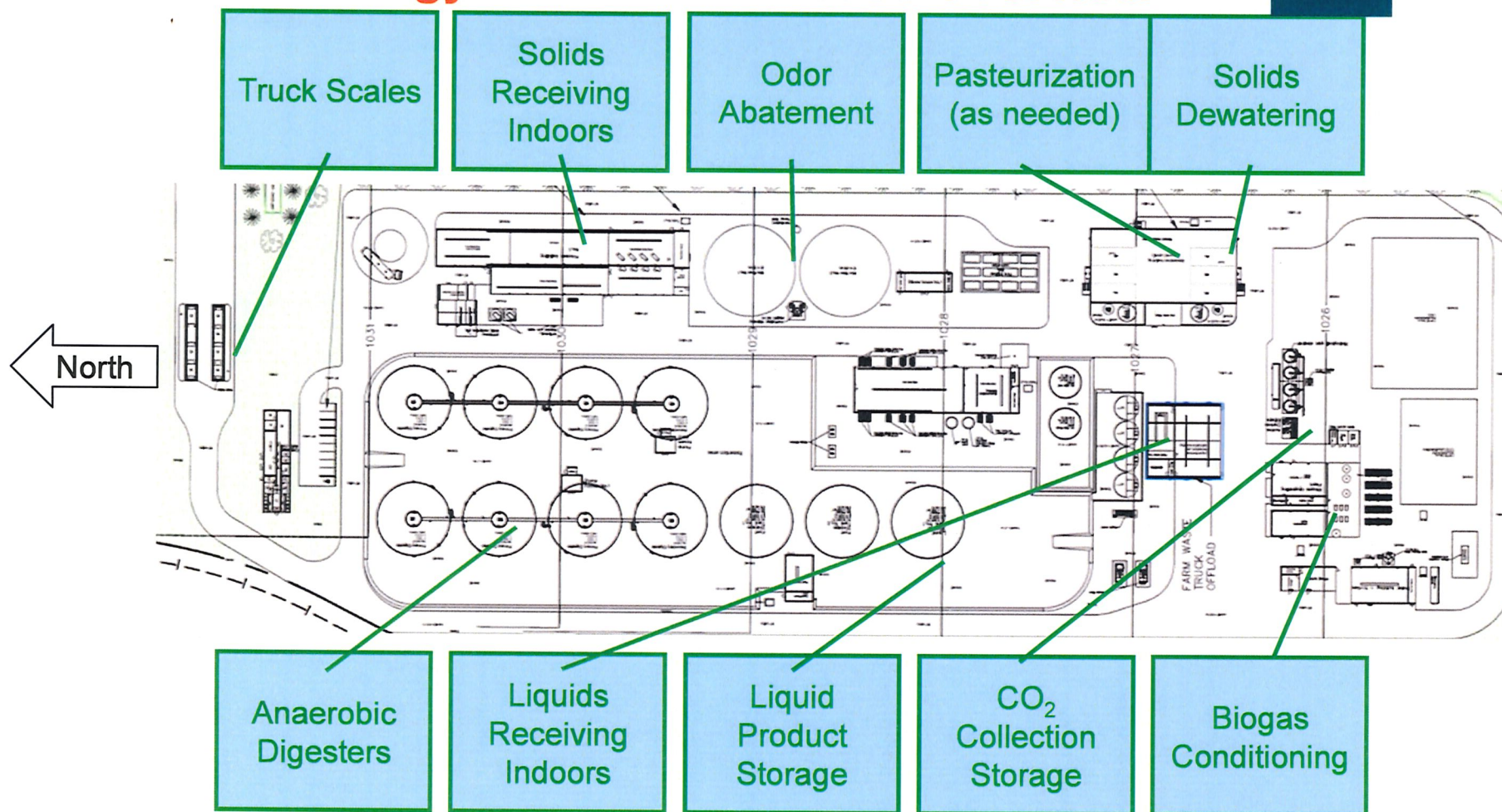
Products

- Renewable Natural Gas
- Carbon Dioxide
- Digestate
- Nutrient Water
- Fiber Fraction

Nature Energy – General Process Overview

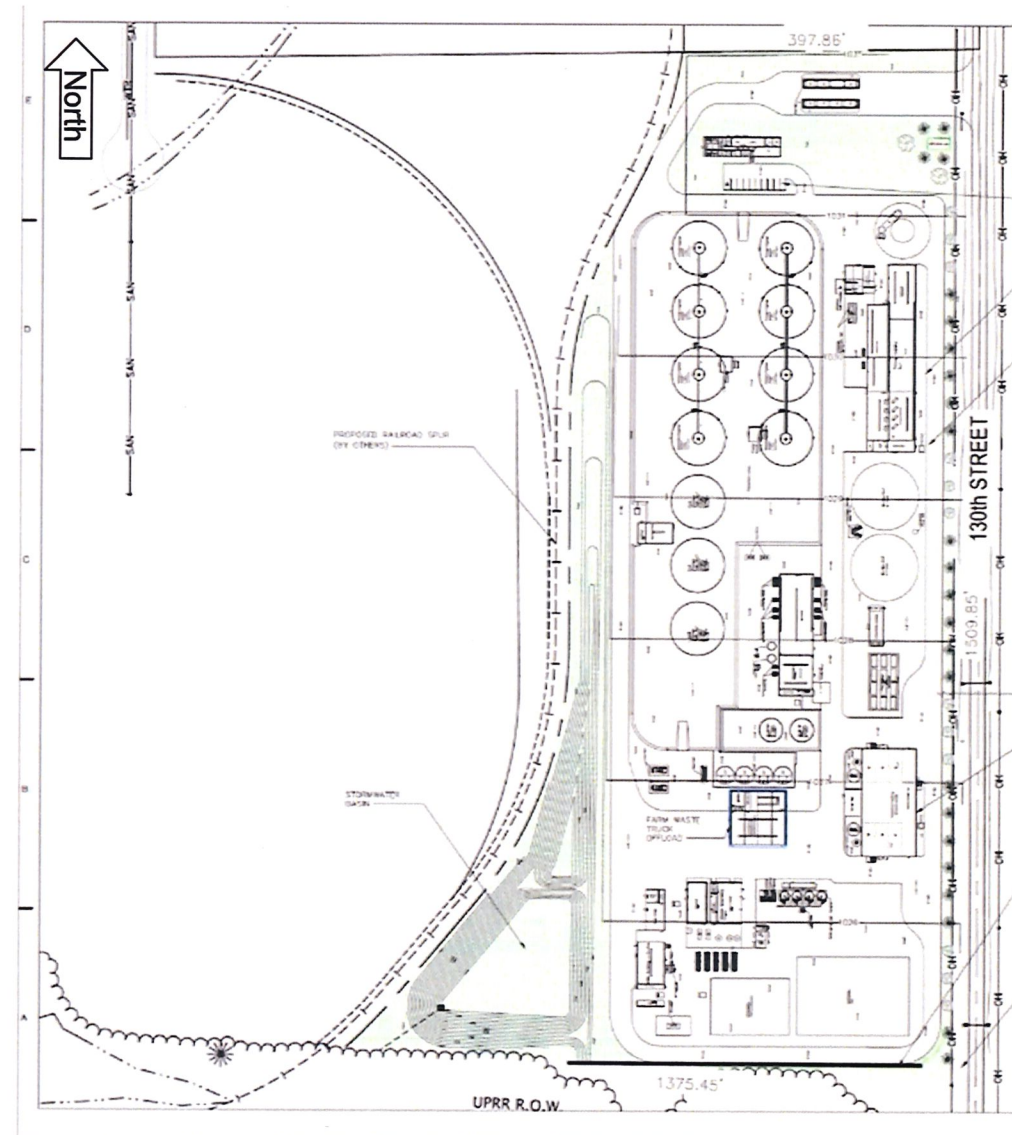
nature
energy

ARCADIS



Proposed Roberts Concept Plan

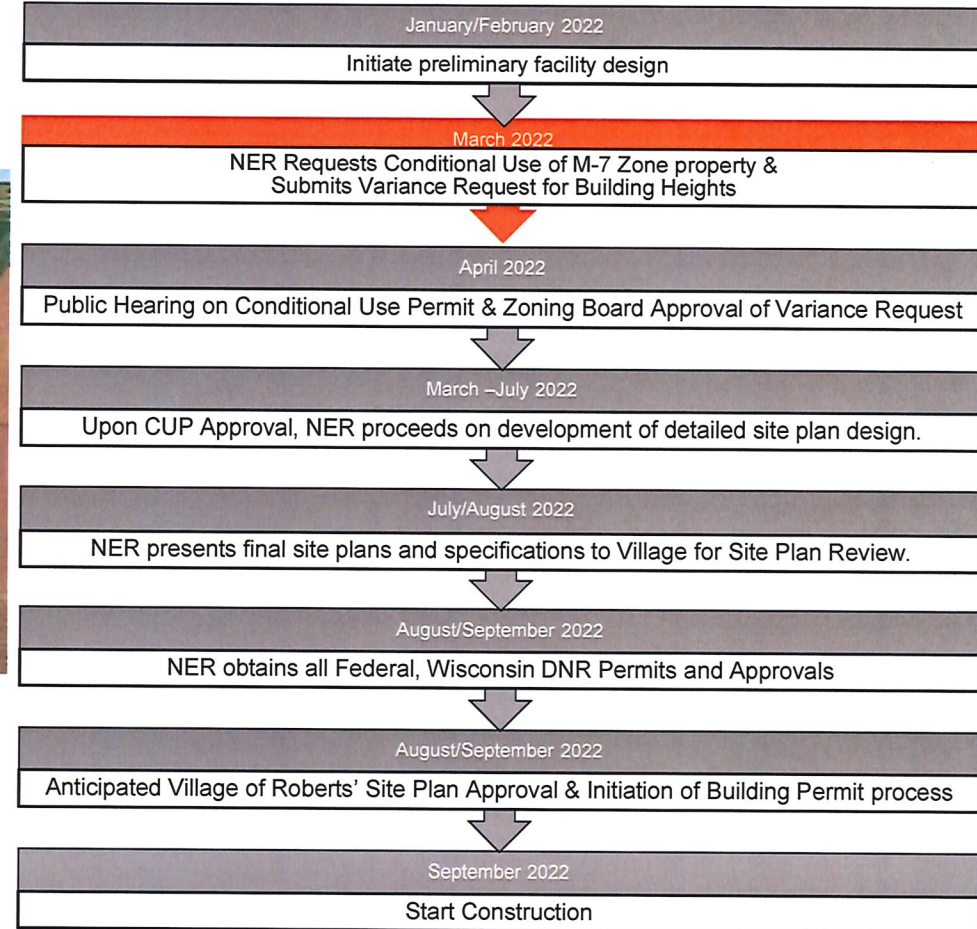
- Proposed location is north of the Union Pacific railroad and south of the Roberts Business Park
- Site is currently zoned as M-7, Industrial Rail Park District
- Neighbors include Harris Rebar and Xcel Energy (NSP)
- Site has a minimal flood hazard



Nature Energy Roberts (NER) Anticipated Timeline



Rendering of Nature Energy Roberts' Proposed Biogas Facility



Conditional Use Permit

Nature Energy Roberts is requesting the Conditional Use of the M-7 Industrial Rail Park District to include the recovery of renewable natural gas from agricultural and food processing waste.

This aligns with the conditional uses defined in Roberts Code of Ordinances, Sec. 70-131.A.(3).



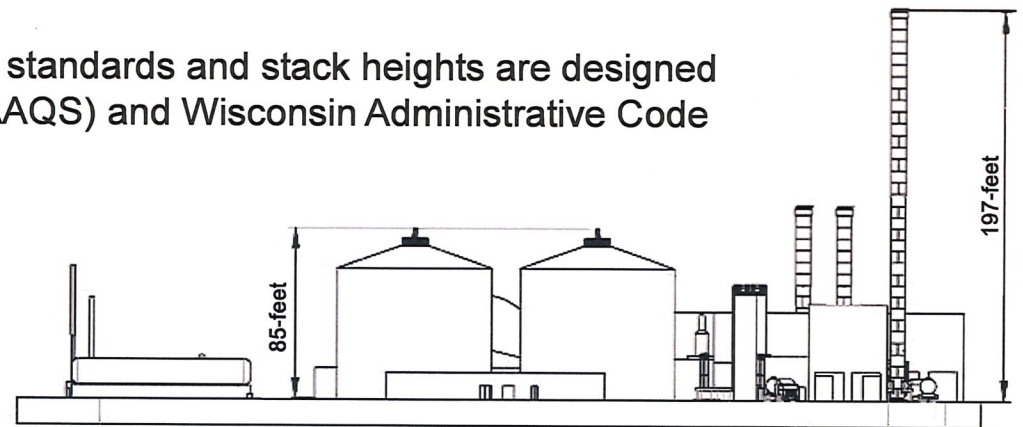


Zoning Variance Request - Building Heights

Nature Energy needs to install the following items, which exceed the 35-foot maximum structure height:

1. Five buildings with an anticipated maximum height ranging from approximately 36-feet to approximately 51-feet.
2. Six primary and two secondary digesters with an anticipated maximum height of approximately 85-feet.
3. Three storage tanks with an anticipated maximum height of approximately 47-feet.
4. Three process stacks with anticipated maximum heights of: approximately 66-100 feet (two stacks) and 197 feet (one stack). Actual stack heights are dependent upon air dispersion modeling which will be conducted during future design activities.

Process equipment heights are dictated by industry standards and stack heights are designed to meet National Ambient Air Quality Standards (NAAQS) and Wisconsin Administrative Code Ambient Air Quality requirements.



Similar Height Comparisons



Water Tower: Approximately 145'



Harvestore Silo Storage: Approximately 85'-100'



Site Design – Erosion and Sediment Control During Construction

Erosion and sediment control Best Management Practices (BMPs) will be implemented in accordance with s. NR 151.11, Wisconsin Administration Code.

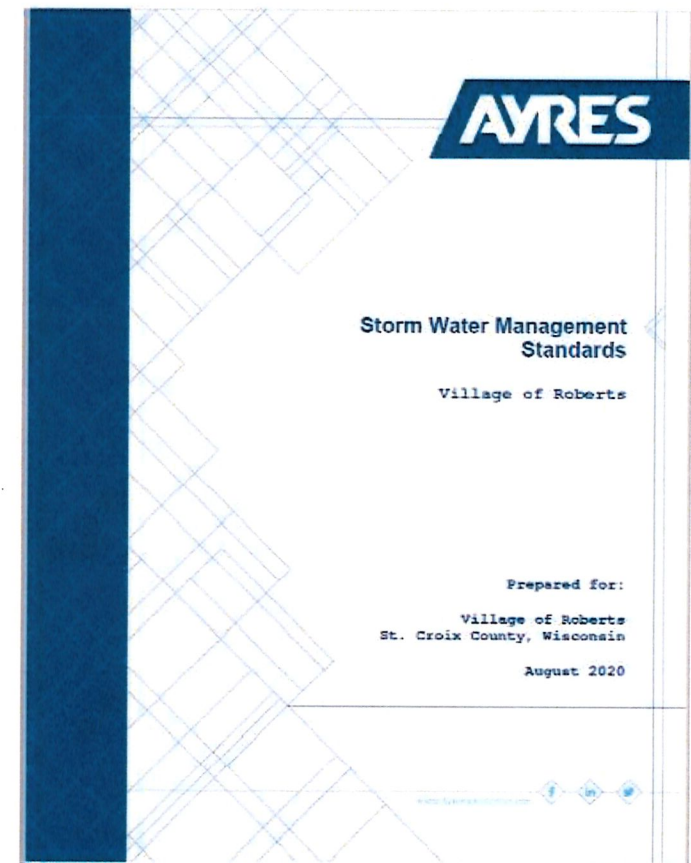


Controls during construction will include:

- Silt fence
- Mud trackout control pad
- Inlet protection
- Erosion control matting
- Stormwater controls such as ditch checks

Site Design – Stormwater Management

- Stormwater at the operating facility will be managed with two bays within a stormwater pond.
- The stormwater pond will be designed to maintain the 100-year flood storage capacity of the surrounding area.
- Wisconsin Department of Natural Resources (WDNR) Water Resources Application for Project Permits – Submitted 2/28/2022



Nature Energy Roberts Operations



NER will employ 8-10 workers



Site will operate 24 hours, 7 days / week
Deliveries will be M-F: 6 am to 6 pm and
Saturday: 8 am to 2 pm
No deliveries on Sundays



Biomass inputs will contain various sources
including dairy manure, turkey litter, food
processing waste and water.



Commercial sale of Renewable Natural Gas
and CO₂. Additional by-products to return to
farmers include digestate, nutrient water,
and phosphorus rich solids.



Nature Energy Roberts Operations – Odor

Although the raw materials are known to have odor, NER manages these materials indoors and the collected air is treated with engineered biofilters.



- NER receives feedstocks in an enclosed negative pressure receiving hall.
- Air from the receiving loading halls and storage tanks is treated with engineered biofilters prior to release through the 197-foot stack.
- Biogas from the enclosed anaerobic digestion tanks is collected with an enclosed pressurized piping system.



Nature Energy Roberts Operations – Noise

- The closest noise-sensitive receptors are buffered by a tree line (residence 300 feet south of the proposed facility, across the railroad) and distance (residents located west of the proposed facility at distances exceeding 1,000 feet).
- Truck deliveries will be from M-F 6am-6pm; Sat. 8am – 2pm.
- Study for a Nature Energy Denmark facility calculated noise contributions to residential areas and found:
 - The maximum was 50 dBA at all the receptor locations – This noise level is similar to a quiet residential street with light traffic.
 - The maximum noise contribution at night originated primarily from sporadic traffic entering and exiting the sites.

Nature Energy Roberts Operations – Traffic Management

Locally sourced feedstocks for the anaerobic digesters will be delivered to NER in enclosed/covered trucks.

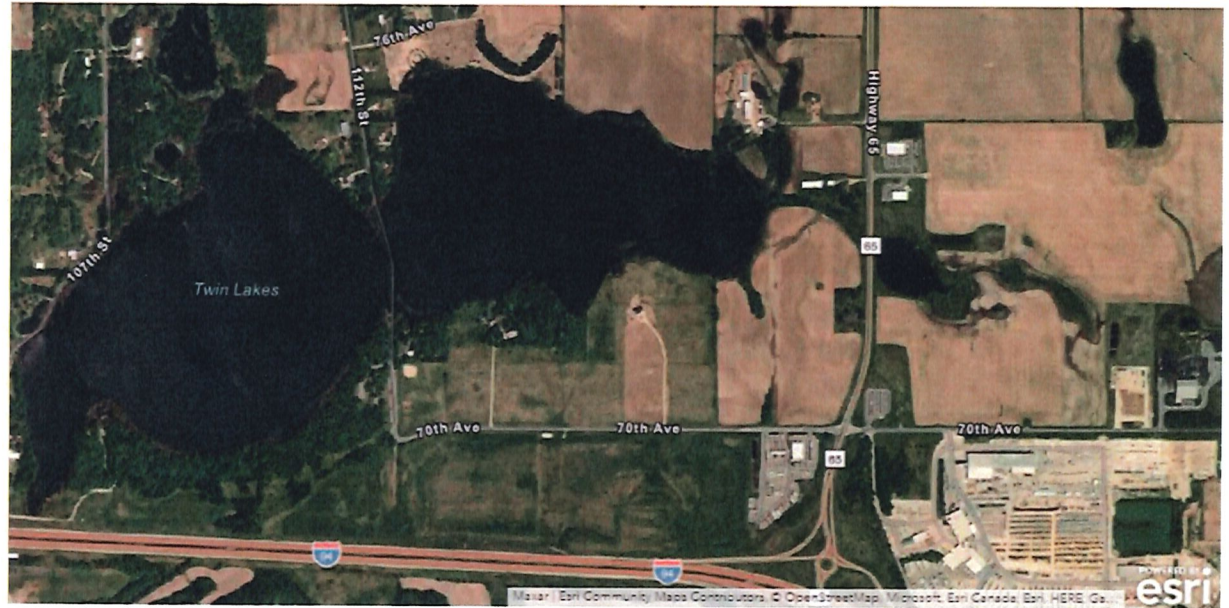


- Approximately 90-95 transport trucks per full working day and approximately 40-50 on Saturdays.
- Truck deliveries will be from M-F 6am-6pm; Sat. 8am – 2pm
- No deliveries on Sundays
- Transport trucks will come into the site from the north.
- NER's truck logistics will optimize truck traffic patterns to prevent off-site transport truck queuing.
- NER's traffic study to identify any potential traffic implications from the facilities and improvements to 130th Street.

Nature Energy Roberts Operations - Water

A component of the biogas process requires water.

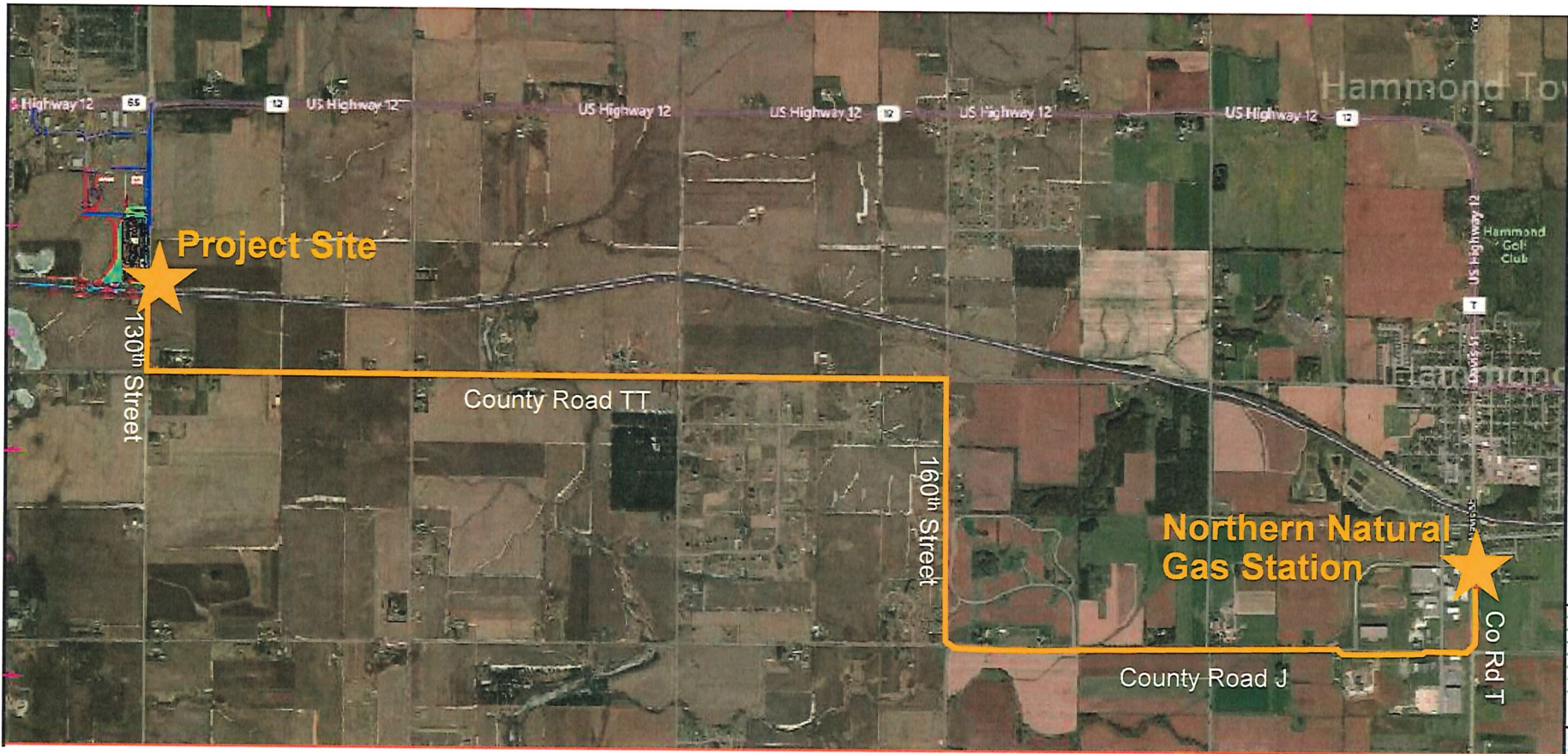
Nature Energy will work with the Village to evaluate opportunities to utilize Twin Lakes as a nearby water source.



Above Image from ~2020.
Left Image from 1973.

Proposed Plant Pipeline Connection

- Natural gas gathering pipeline does not require CUP approval.
- Working with the Wisconsin PSC.





Next Steps

CUP Application – Use of M-7 Zoned Property

- NER is requesting that the CUP Application is forwarded to the Village Board for review/approval.
- Present CUP Application at the Village Board Public Hearing in April 2022.

Variance Request – Building Heights

- NER is requesting the variance request is forwarded to the Zoning Board Committee for review and approval.

Full Site Plan – Village Review

- NER is finalizing the Full Site Plan – anticipated Summer 2022.
- Upon Village Board approval of the Full Site Plan, NER will procure the Building Permit prior to construction.

Start Construction – September 2022





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Questions & Discussion

