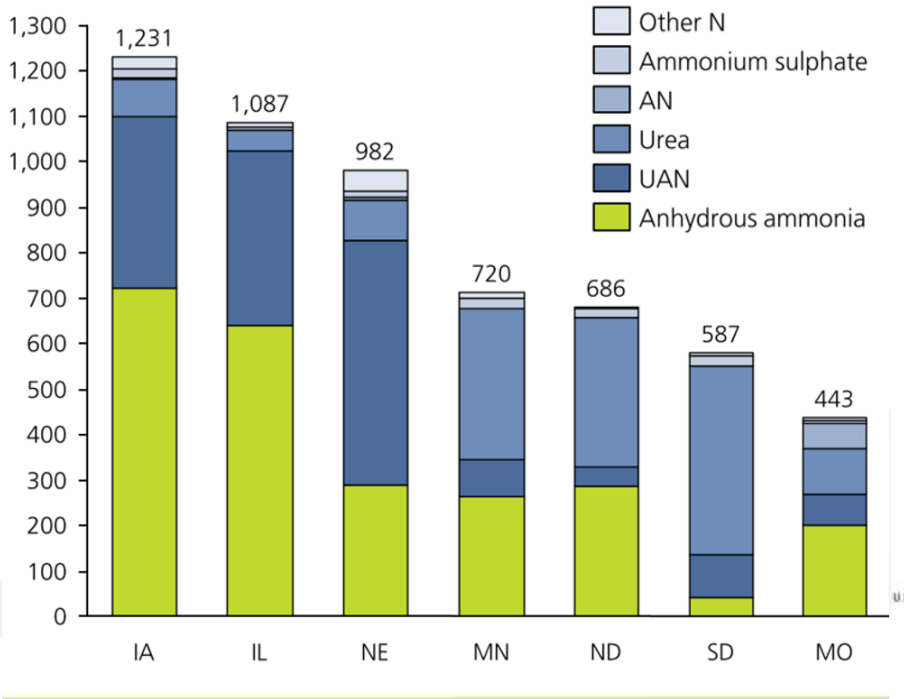
GREENFIELD NITROGEN

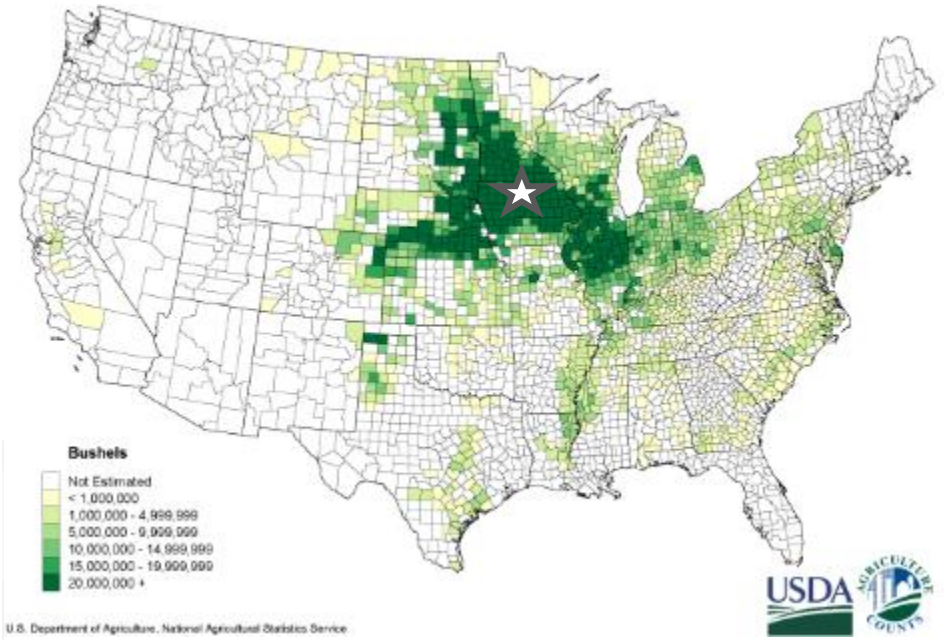
The First U.S. Industrial Scale
Pure Green Hydrogen and Ammonia Plant

November 2021

OUR STORY:
LOCATION, LOCATION, LOCATION



Source: AAPFCO



GREENFIELD NITROGEN

MIDWESTERN REGION: A WIN - WIN

Strong Market

High Ammonia Use

- Demand in Iowa = 5x supply.
- Logistical Advantage: 50-75 miles distribution radius (in-season).
- Access to NuStar Ammonia Pipeline.
- Access to rail.

Renewable Energy

Abundant Supply

- Plant will use 100% renewable energy, including renewable energy credit.
- Iowa has a high percentage of renewable power.
- Iowa also has surplus renewable power.
- Innovative electrical rate.

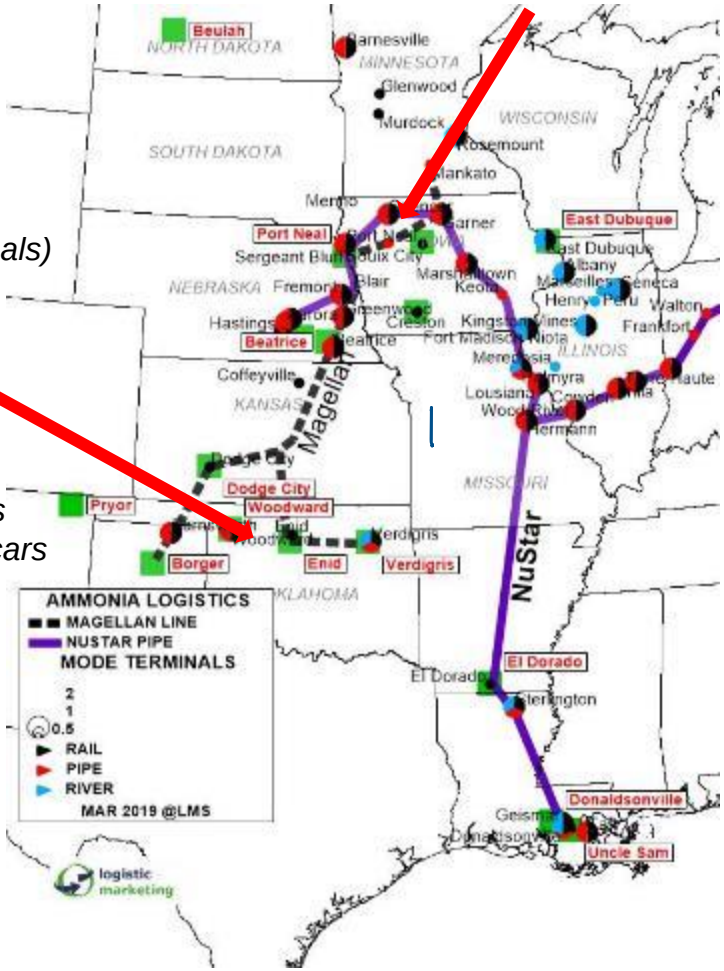
GREENFIELD NITROGEN

ACCESS TO LOCAL & GLOBAL MARKETS

Greenfield Site

Pipeline
NuStar (1.2 M tons and 19 Terminals)

Rail
Increasingly non-competitive
16 Terminals (40%) with rail access
Approximately 4,000 ammonia railcars

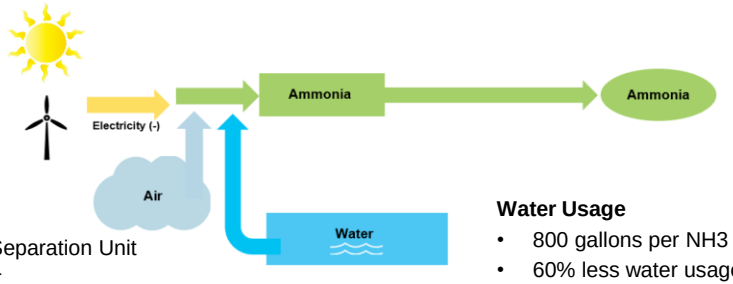


Barge
14 River Terminals (36%)
Aging Barge Fleet (Avg Age 45 years)
Barge replacement cost $35-40MM

Green Ammonia Facility vs. Traditional Nitrogen Production Facility

Greenfield Nitrogen: Zero Carbon Ammonia Facility

Made with water, wind and sun energy



Electrical Usage

- 860 kWh per ton – Loop & Air Separation Unit
- 9000 kWh per ton - Electrolyzer
- 100% renewable energy

Water Usage

- 800 gallons per NH3 ton
- 60% less water usage

Carbon Dioxide equivalent based on Greenhouse Gas Emissions from GREET® Model	Carbon Dioxide equivalent release based on application of 200 lb. of N per Acre	Advantage to using Low Carbon Ammonia for CO2 equivalent per acre
		GREENFIELD NITROGEN
CO2 lb. release per 1 lb. N	**CO2 lb. release per 1 acre**	**Reduced CO2 lb. release per 1 acre**
0 lb.	**0 lb.**	**N/A**

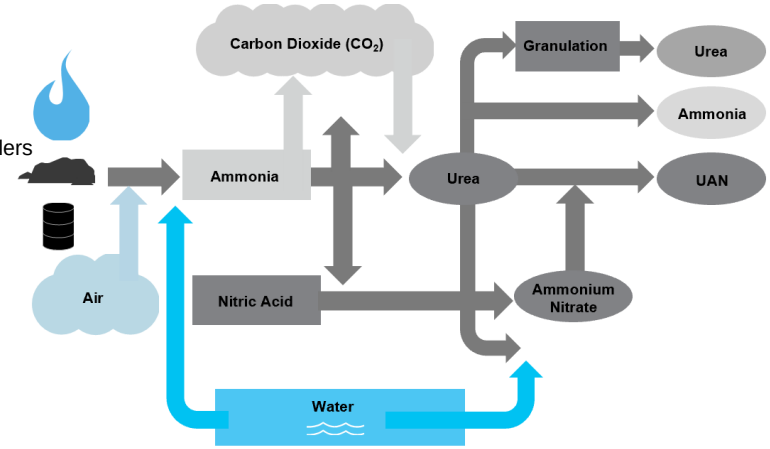
Traditional Nitrogen Facility: Multiple Products Made with Fossil Fuels

40% of CO2 is used as feedstock; later released through use of nitrogen products at farm field for urea & UAN

- C02 is used for Urea & UAN Production
- C02 captured through energy intense Amine wash process

Energy Usage

- 29 - 45 MMBtu fossil fuel/electrical per NH3 ton
- Requires energy intense boilers



3.19 lb.	**639 lb.**	**639 lb.**
2.43 lb.	**485 lb.**	**485 lb.**
5.20 lb.	**1040 lb.**	**1040 lb.**

Average CO2 equivalent reduction per acre: **721 lb.**

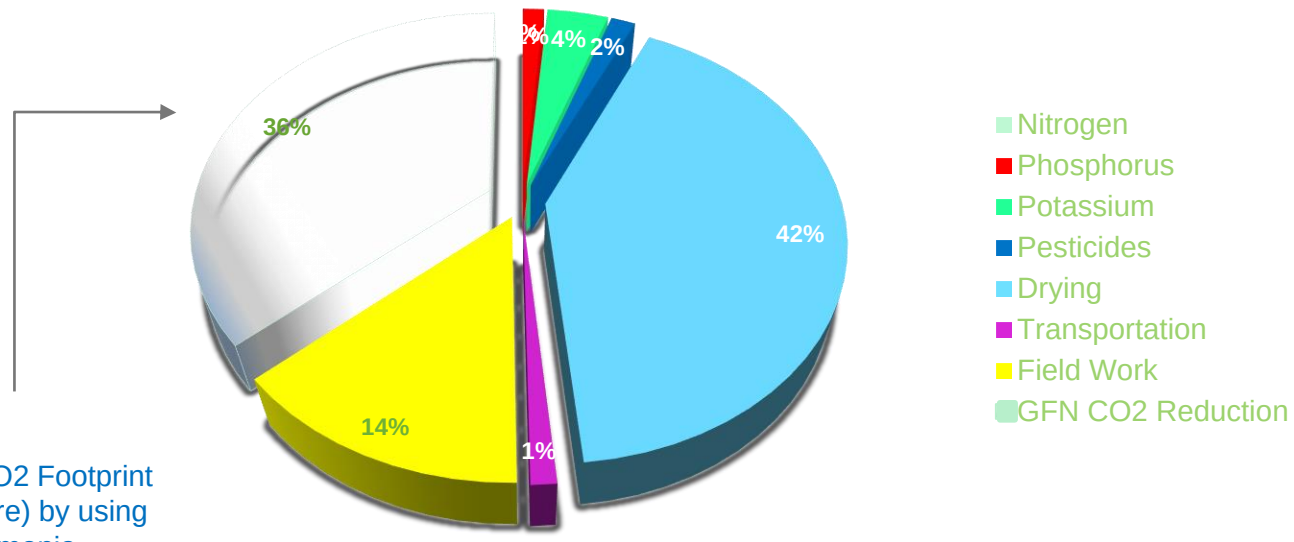
Water Usage

- 2200 – 2500 gallons of water per NH3 ton

GREENFIELD NITROGEN

BENFIT OF ZERO CARBON AMMONIA

Corn following Soybeans
Greenfield's Green Ammonia Carbon Reduction is 36%



Reduction of CO2 Footprint (721 lbs per acre) by using green ammonia

GREENFIELD NITROGEN

PURE GREEN IS KEY

OPPORTUNITIES

- **Win-Win** -- Access to both a high ammonia use region and renewable energy.
- **“Clean Slate”** – Not encumbered with legacy assets.
- **100% Green** – No blending of gray, blue or other shades of ammonia.
- **EPC Partner –** Maire Tecnimont and its subsidiaries will co-develop the project, and use the STAMI Green Ammonia technology.
- **Electrical Rate -** Innovative electrical rate structure competitive with gray ammonia.

EMERGING

New Markets – Well positioned, but also need the market to develop.

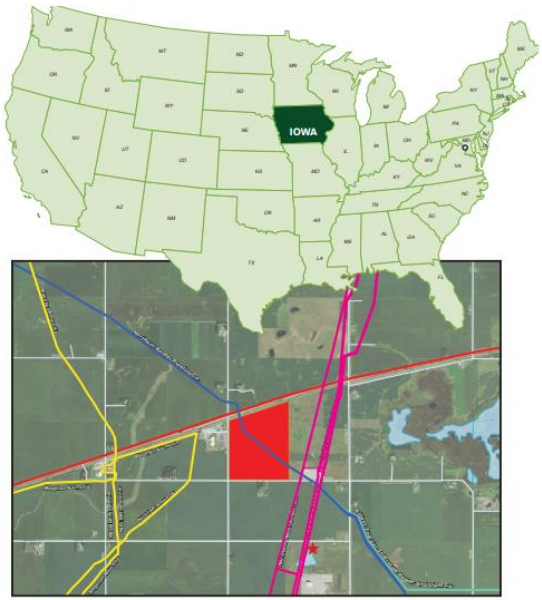
Green Credit / Green Premium – Unknown how credit market will evolve or how much of a premium customers will pay.

Federal tax credits or other incentives – Still being developed. Amount and duration unknown.

GREENFIELD NITROGEN

THE GARNER, IOWA PROJECT

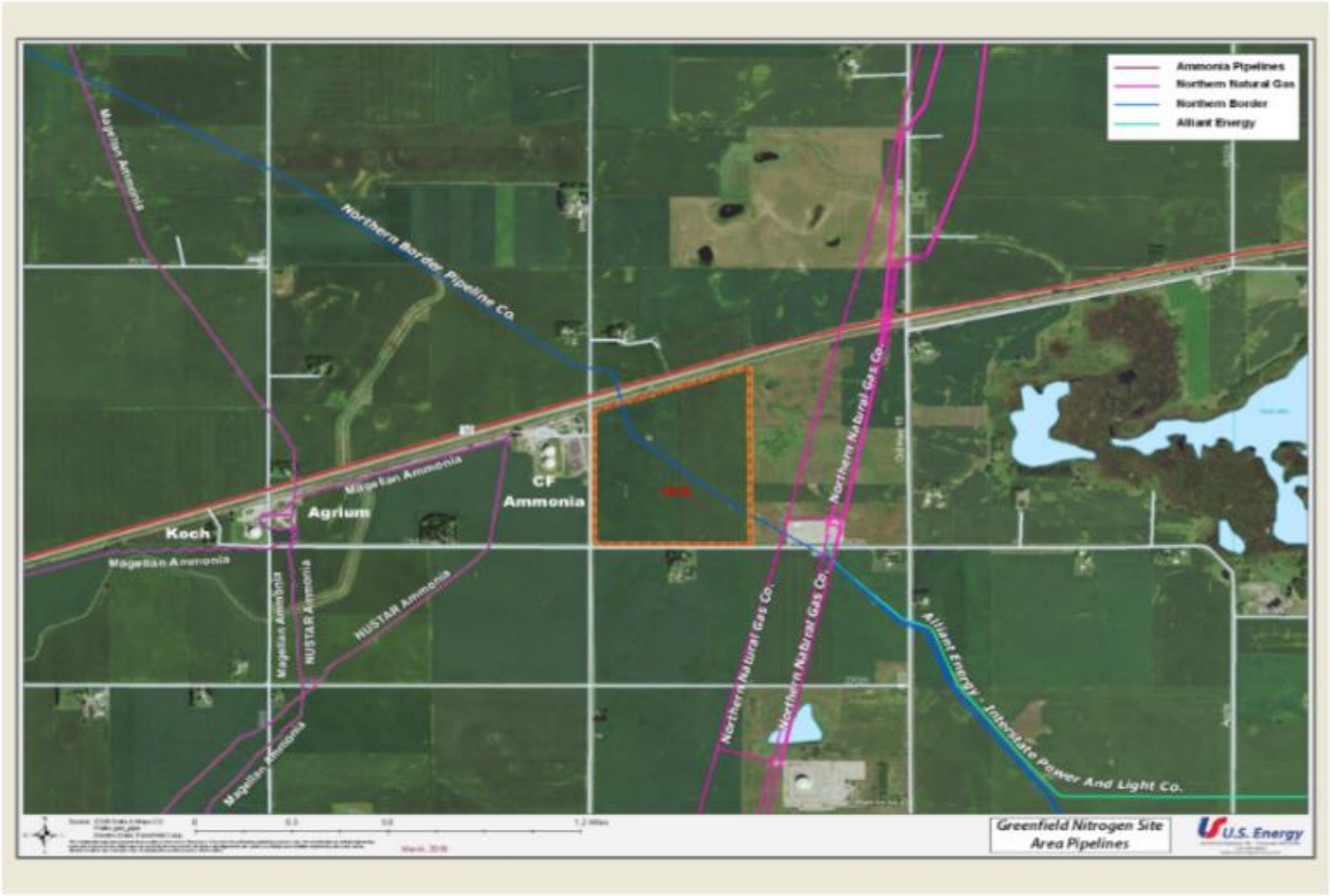
PROJECT OVERVIEW



- 96,000 short tons / year of green ammonia (275 tons per day).
- Key permits in place and shovel ready site.
- Joint development partnership with Maire Tecnimont, including Stamicarbon, MET Development and NextChem.
- Engaged with investment firm with expertise in renewable energy / green hydrogen.
- Partnership with large utility company to create competitive electrical rate package.
- Local farmers and businesses invested seed capital. Strong support from state and local officials.

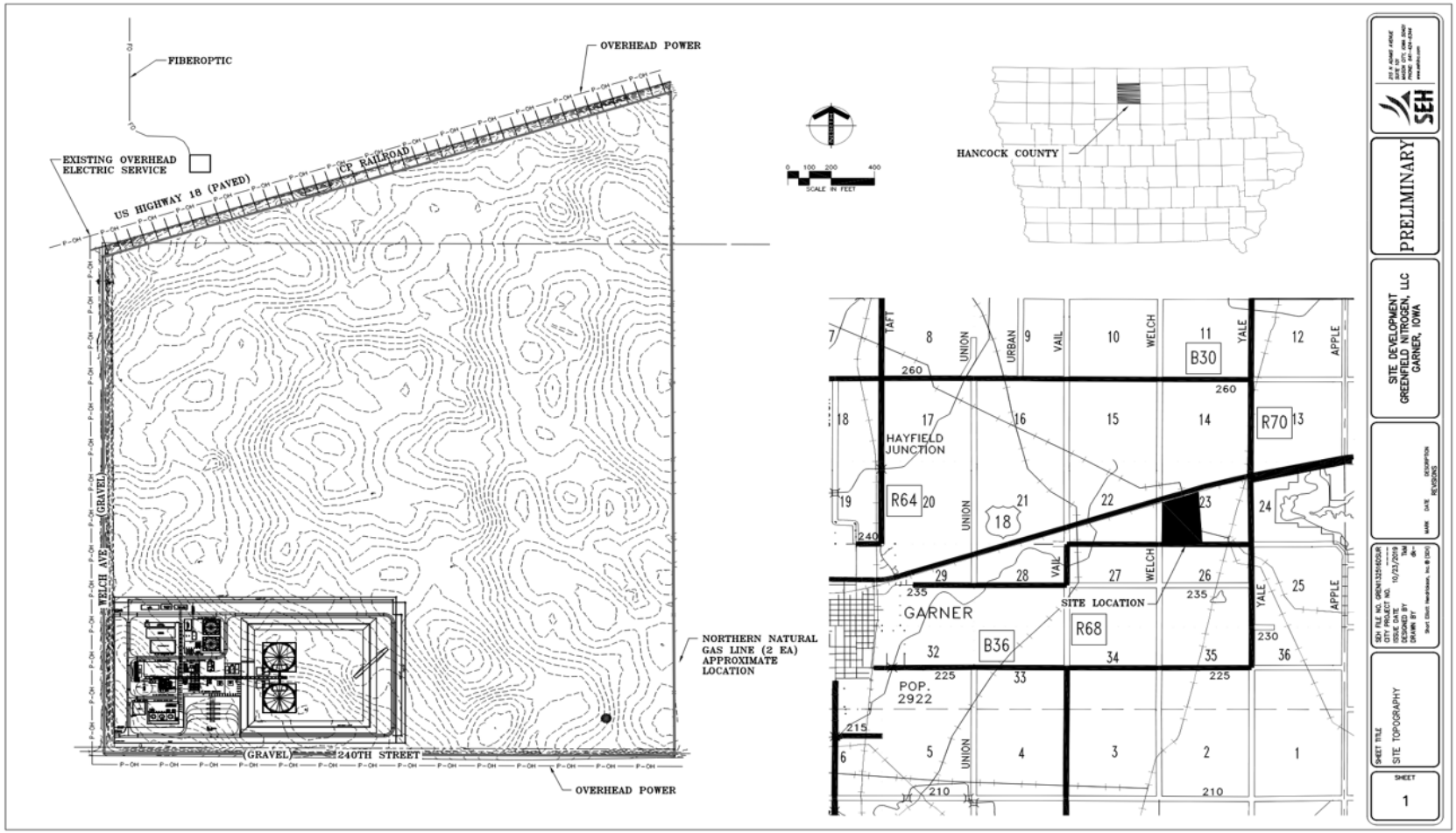
GREENFIELD NITROGEN

SITE MAP



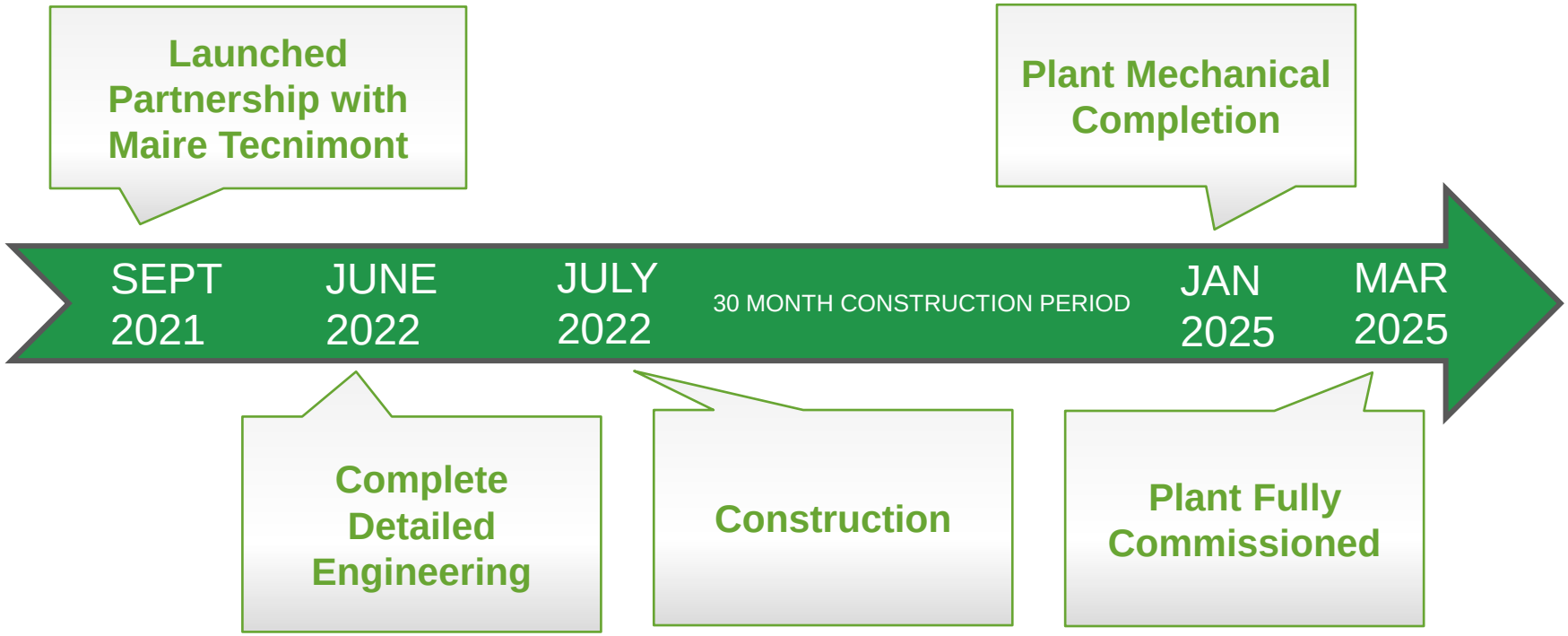
GREENFIELD NITROGEN

SITE PLOT PLAN



GREENFIELD NITROGEN

ESTIMATED TIMELINE



GREENFIELD NITROGEN

THANK YOU!