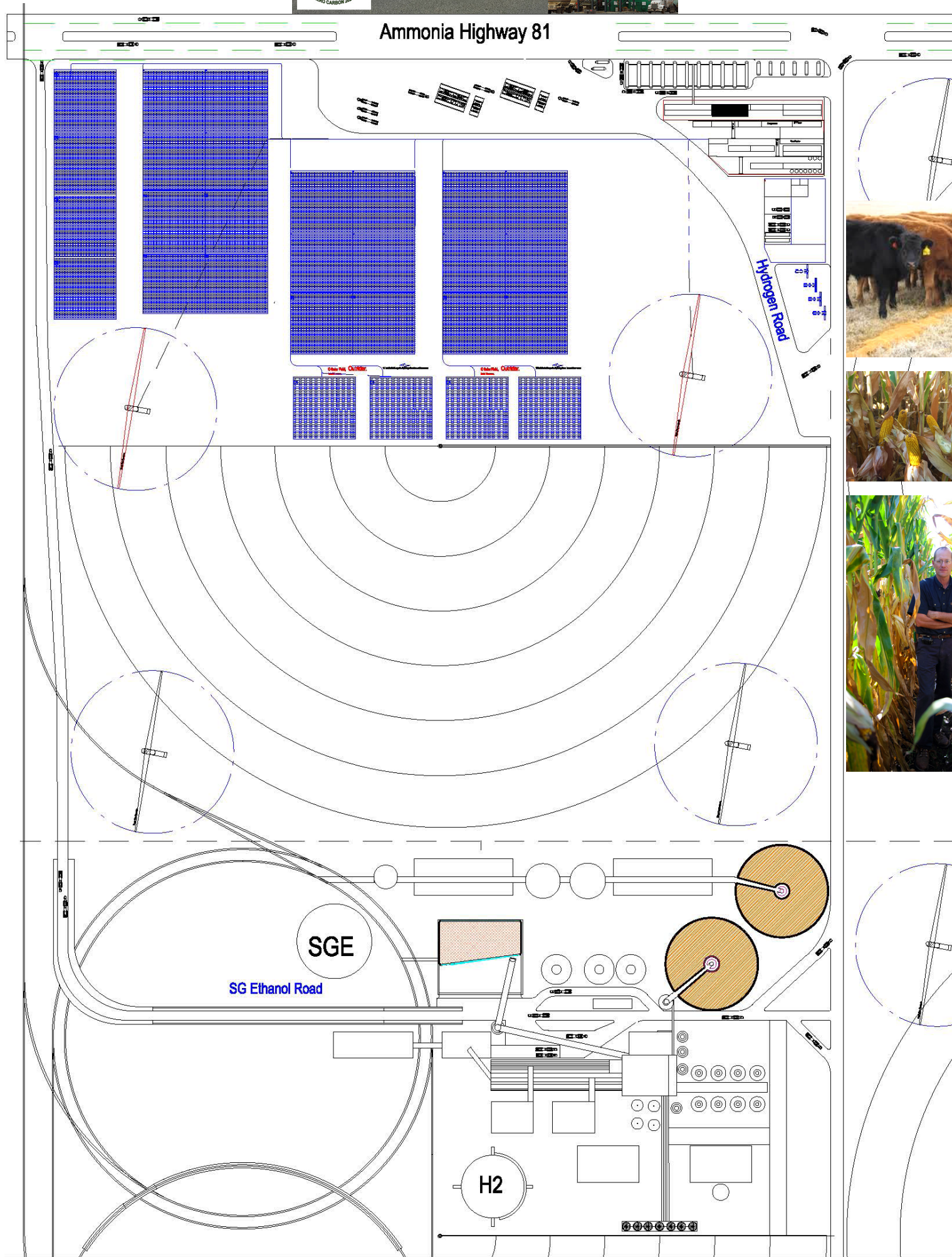


**GPA Triple Tree Fuel**



**Green Ammonia, Green Hydrogen Builds Super Green Ethanol  
Fueling a 100 million Gallon Ethanol Plant with Green Hydrogen and Green Ammonia.**

The GPA projected level cost of Green Hydrogen per gallon Super Green Ethanol produced is 32 cents per gallon. The historical price for Natural Gas fossil fueling varies at 24 cents to 32 cents per gallon of fossil Ethanol.

A high percentage of midwest Ethanol plants have a Carbon Index Score of 65 to 75. Finding a plant with a CIS or Carbon Index Score of 50 is rare.

**The Carbon Score drops to 26** when there is no fossil carbon methane Natural Gas for the boilers and digesters. How much is that worth? Answer: A lot of money, \$48 million annually and this moves to profits under 45Z. This is about 20% more profit when Ethanol is \$2.35 per gallon.

**The Carbon Score drops to 23** when electricity to build the Super Green Ethanol is built with Green Ammonia in a dual fuel combination with Green Hydrogen. Advancing technology allows dual fueling. A \$6 million credit annually is predicted. Is that enough to pay for an installation in 3 months by converting an existing plant? How much is that worth in total? The answer is \$54 million annually moves to profits under the Section 45Z IRA subsidy.

**The Carbon Score drops to 8** when Super Green corn is produced with Green Ammonia and low carbon PKS in No-tillage/Fumigant Cover Cropping. How much is that worth? The charts indicate a total \$84 million dollars annually.

**When raising low carbon score corn or Super Green the producer is rewarded \$1.00 to \$1.50 more per bushel** to produce an Identity Preserved Corn or IPC. The producer must make storage and machinery investments. Compensation could be as high as \$2.00 per bushel with all credits considered.

The lowest carbon score producers of corn can formulate TAPPKTS fertilizer. The low carbon fertilizer TAPPKTS is a 1%CV nutrient product. It is calculated as effective with Green NH3 for ammoniac N and Low Carbon Poly Sulfate and Poly Halite PKS in a stable crystal. This Exactrix product TAPPKTS is using fossil fertilizer products and is presently banded deep in the root zone with Mustang Openers and Exactrix.

**Q and A.** What is the fossil ethanol digester/boiler cost of Energy? The lowest cost is **16 cents/G Ethanol** with the lowest cycle cost Natural Gas at 33,183 BTU efficiency level to 50.5 cents/G Ethanol with highest cost cycle of Natural Gas and a 53,956 BTU efficiency level. **A potential loss of profits for fossil Ethanol plants. Green Hydrogen has a 7-year price contract.**

**Is it important to remember that 52.6% per gallon Energy is fossil Natural Gas with 47.6% Ethanol Energy? Thus, fossil Ethanol is an energy product of questionable value in the eyes of the environmental consumer.**

Will the transportation industry pay more for Super Green Ethanol? No, unless carbon credits are available.

Will the market explode to GE-98 Corn Ethanol like Brazil? Government support is required.

Will Distillers Grain produced with Zero Carbon and lowest Methane content drive a market premium at the meat counter? **Yes**

Will the Federal Government back a Super Green Ethanol? Yes, as so noted in the 45Z section of the IRA. Associations are dropped with Fossil Fueling stations...Are separate Fueling Stations required for E-98? Yes.

Reference 1, Iowa Renewable Fuels Association. Comparative Economics of Carbon Sequestration for Iowa Ethanol Plants, February 2023.

Reference 2. IRA Section 45Z. Interpretations