



Biodiesel From Nature



Biodiesel Plant Offering

Jatro Renewables, Inc.

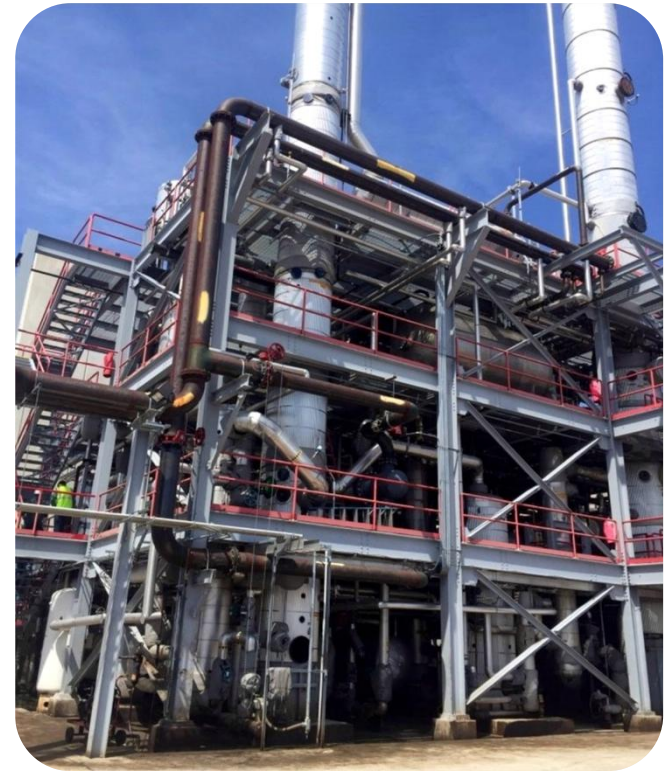
845 North Main Street,

Miamisburg, OH 45432

(937) 308-1230

The Offering

- In 2016 Jatro Renewables completed and commercially commissioned a 5 MMgy biodiesel plant for Patriot Energy, an ethanol plant with a 125MMgy nameplate and located at Annawan, Illinois (138 miles southwest of Chicago)
- During the commissioning period the ethanol and biodiesel plants were acquired by CHS, Inc. for \$196m
- The biodiesel plant ran 100% corn oil from the Annawan plant and a 133MMgy ethanol plant owned by CHS at Rochelle, Illinois 74 miles to the northwest
- In October 2019, CHS decided to sell all their corn oil to Valero's Diamond Green renewable diesel facility (275MMgy) at Norco, LA and sell the biodiesel facility.



CHS' 5MMgy biodiesel plant at Annawan, IL that uses Jatro's patented Supercritical technology

CHS has not placed their biodiesel plant on the open market and would prefer not to. They want the plant out by end of July

Plant Statistics

- The plant uses the novel *Supercritical* processing technology first introduced in 2016 by Jatro Renewables
- The hallmark of the system is it enables the processing of oils, such as brown grease and trap grease, that are typically very high (up to 100%) in free fatty acid (FFA)
- Traditional biodiesel plants can only run oils such as yellow grease, used cooking oil, and oils that are below 15% FFA
- Oils high in FFA cost less than half the cost of oils below 15% FFA. Currently about \$0.25/lb vs. \$0.11/lb for the high FFA materials
- Another feature of *Supercritical* is no catalyst is needed so saves ~\$0.14/gal. opex . Plus, the by-product Glycerin does not get contaminated and renders it 20% cleaner and worth 50% more at market.

If a Supercritical plant runs a 70% blend of corn oil and 30% low cost, high FFA oil, it can reduce its total cost of finished biodiesel by \$0.50/gallon.



The process finishes the biodiesel by distillation, thereby providing a clear as water biodiesel that will not change the typical ULSD diesel fuel color.

Plant Gallery



■ Cooling tower



■ Distillation Column



■ Reactors



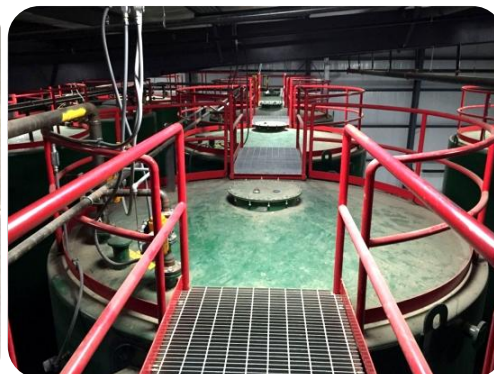
■ Main boiler



■ Electric switchgear



■ Settling tank



■ Storage tanks (top, manways)



■ Storage tanks (inside)



■ Methanol loading

Experience



- The Jatro management team has had 16 years experience in biofuels as designers, engineers and operators of biodiesel plants and has designed and installed or re-configured 18 biodiesel plants since 2004
- Today there are two plants using Jatro's patented *Supercritical* technology which the Company completed development of in 2016. The second plant is under construction
- In 2018 the Company in conjunction with the customer, an ethanol plant, was awarded a \$4m grant from California Dept. of Energy for the use of its unique, advanced technology.



Control room.

Jatro's biodiesel technology allowed plants to process very high FFA oil feedstocks such as trap grease cutting feedstock costs significantly depending on blend ratio.

Economics (Summary)



408K gals/Month Biodiesel using 100% Corn Oil

Feb. 18, 2020 - Oil: \$53.44, HO: \$1.88, Corn Oil: 0.26/lb

Per Month

Revenue from Buyer for B99 Biodiesel, HO-27, Net \$1.61/g	\$	657,416
Revenue from RINs, Net \$0.72/g		293,999
Revenue from Glycerin, Net \$0.09/g		36,750
Revenue from IRS Subsidy, Net \$1.01/g		412,416
TOTAL REVENUE		1,400,581
TOTAL COST		1,008,582
EBITDA MARGIN		391,999
Per Gallon (ebitda)		\$0.93

April 30, 2020 - Oil: \$18.46, HO: \$0.84, Corn Oil: 0.25/lb

Per Gallon (ebitda). HO-27	\$0.03
----------------------------	--------

April 30, 2020 - Oil: \$18.46, HO: \$0.84, Corn Oil w/BG: 0.23/lb

Per Gallon (ebitda). HO-27	\$0.18
----------------------------	--------

Economics (Market 2/18/20 Corn oil only)



1Q MARKET

5,000,000 gals/year
Oil \$53.44

FEEDSTOCK

100% CORN OIL

4/29/2020

S.No	Description	Cost	Quantity	Units	Sub-Total	Cost / Gal
1	Feedstock	\$0.26	37,425,592	lbs	\$9,730,654	\$1.95
2	Methanol	0.94	647,191	Gallons	608,360	0.12
3	Polishing Agent	0.58	187,128	lbs	108,534	0.02
4	Electricity/Boiler				576,604	0.12
5	Labor				673,200	0.13
6	Transportation				0	0.00
7	Office & Misc Expense				603,250	0.12
8	Sales Commission	0.01			50,000	0.01
A	Total Expense per Year				12,350,602	2.47
	Heating Oil (HO)	1.88	18-Feb-20			
9	Diff. to HO	-0.27	4,900,000	Gallons	7,889,000	1.61
10	Glycerol - 95% pure	0.12	3,507,280	lbs	420,874	0.08
11	RINS (1.5 per gallon)	0.48	7,485,118	RINs	3,592,857	0.72
12	CCC Credit (NA)*	0.00	4,900,000	Gallons	0	-
13	Blenders Credit **	1.01	4,900,000	Gallons	4,949,000	0.99
14	Producer Credit	0.00	4,900,000	Gallons	0	0.00
B	Total Income per Year w/ Credit				16,851,730	3.40
B-A	Profit/Loss w/ Credit (EBITDA)				\$4,501,129	0.93
	Biodiesel yield post MIU deduction:		98.00%			

Economics (Market 2/18/20 Corn & Brown)



1Q MARKET

5,000,000 gals/year
Oil \$53.44

FEEDSTOCK

80% CORN OIL, 20% BROWN

4/30/2020

S.No	Description	Cost	Quantity	Units	Sub-Total	Cost / Gal
1	Feedstock	\$0.23	37,425,592	lbs	\$8,607,886	\$1.72
2	Methanol	0.90	647,191	Gallons	582,472	0.12
3	Polishing Agent	0.58	187,128	lbs	108,534	0.02
4	Electricity/Boiler				576,604	0.12
5	Labor				673,200	0.13
6	Transportation				0	0.00
7	Office & Misc Expense				362,000	0.12
8	Sales Commission	0.01			50,000	0.01
A	Total Expense per Year				10,960,696	2.24
	Heating Oil (HO)	1.88	18-Feb-20			
9	Diff. to HO	-0.27	4,900,000	Gallons	-	1.61
10	Glycerol - 95% pure	0.12	3,507,280	lbs	420,874	0.08
11	RINS (1.5 per gallon)	0.52	7,485,118	RINs	3,892,262	0.78
12	CCC Credit (NA)*	0.00	4,900,000	Gallons	0	-
13	Blenders Credit **	1.01	4,900,000	Gallons	4,949,000	0.99
14	Producer Credit	0.00	4,900,000	Gallons	0	0.00
B	Total Income per Year w/ Credit				\$9,262,135	3.46
B-A	Profit/Loss w/ Credit (EBITDA)					\$1.22

Biodiesel yield post MIU deduction:

98.00%

Economics (Current Market Corn oil only)



CURRENT MARKET

5,000,000 gals/year
Oil \$18.46

FEEDSTOCK

100% CORN OIL

4/30/2020

S.No	Description	Cost	Quantity	Units	Sub-Total	Cost / Gal
1	Feedstock	\$0.25	37,425,592	lbs	\$9,356,398	\$1.87
2	Methanol	0.94	647,191	Gallons	608,360	0.12
3	Polishing Agent	0.58	187,128	lbs	108,534	0.02
4	Electricity/Boiler				576,604	0.12
5	Labor				673,200	0.13
6	Transportation				0	0.00
7	Office & Misc Expense				603,250	0.12
8	Sales Commission	0.01			50,000	0.01
A	Total Expense per Year				11,976,346	2.40
	Heating Oil (HO)	0.84	29-Apr-20			
9	Diff. to HO	-0.27	4,900,000	Gallons	2,793,000	0.57
10	Glycerol - 95% pure	0.12	3,507,280	lbs	420,874	0.08
11	RINS (1.5 per gallon)	0.52	7,485,118	RINs	3,892,262	0.78
12	CCC Credit (NA)*	0.00	4,900,000	Gallons	0	0.00
13	Blenders Credit **	1.01	4,900,000	Gallons	4,949,000	0.99
14	Producer Credit	0.00	4,900,000	Gallons	0	0.00
B	Total Income per Year w/ Credit				\$12,055,135	2.42
B-A	Profit/Loss w/ Credit (EBITDA)				\$78,789	0.03

Biodiesel yield post MIU deduction:

98.00%

Economics (Current Market Corn & Brown)



CURRENT MARKET

5,000,000 gals/year
Oil \$18.46

FEEDSTOCK

80% CORN OIL, 20% BROWN

4/30/2020

S.No	Description	Cost	Quantity	Units	Sub-Total	Cost / Gal
1	Feedstock	\$0.23	37,425,592	lbs	\$8,607,886	\$1.72
2	Methanol	0.90	647,191	Gallons	582,472	0.12
3	Polishing Agent	0.58	187,128	lbs	108,534	0.02
4	Electricity/Boiler				576,604	0.12
5	Labor				673,200	0.13
6	Transportation				0	0.00
7	Office & Misc Expense				362,000	0.12
8	Sales Commission	0.01			50,000	0.01
A	Total Expense per Year				10,960,696	2.24
	Heating Oil (HO)	0.84	13-Apr-20			
9	Diff. to HO	-0.27	4,900,000	Gallons	-	0.57
10	Glycerol - 95% pure	0.12	3,507,280	lbs	420,874	0.08
11	RINS (1.5 per gallon)	0.52	7,485,118	RINs	3,892,262	0.78
12	CCC Credit (NA)*	0.00	4,900,000	Gallons	0	-
13	Blenders Credit **	1.01	4,900,000	Gallons	4,949,000	0.99
14	Producer Credit	0.00	4,900,000	Gallons	0	0.00
B	Total Income per Year w/ Credit				\$9,262,135	2.42
B-A	Profit/Loss w/ Credit (EBITDA)					\$0.18

Biodiesel yield post MIU deduction:

98.00%

CHS Plant Tour



- **Meet with CHS and make your deal:**
 - Rick Vondra, Plant Manager, will show you around
 - Raj and I will be with you to talk about the various components
 - They are asking \$3m, starting point
 - You sign an agreement with CHS
 - We assume they'd want full payment prior to removal
 - They want the entire biodiesel plant out by July
 - Everything there is yours including loading and unloading stations, all fluids methanol, back up generator, electrical, everything (if in doubt ask)
 - You can use your vendor for removal or ones we suggest you hire
 - You pay the vendors directly, or we can in certain instances (no mark-ups on items we invoice a vendor)
 - From our experience, this sort of move and re-build is routinely done in the fuels & chemicals industry.

Plant Removal & Reassemble



- **Jatro fee:** for managing the dismantling through training and commissioning the plant is \$1.7m, this will be paid in stages over the course of the project (details further down)
- **The follow tasks to be completed:** by Jatro to begin from the day after the CHS Agreement is signed:
 - Working with your permitting engineer to get the permits for Biodiesel plant
 - 3D scan the entire plant before the tear-down and generate all drawings both in CAD and 3D. This will be the starting drawings
 - Find, plan and coordinate with tear-down/re-installation company
Meet them at the Annawan site during tear-downs
 - Plan, and coordinate with the tear-down/re-installation company at Marysville for installation
 - Design/quote/buy all services and coordinating with your Manager
 - Our Project Manager will be a person who will be totally involved with your Manager on a day-to-day basis along with Raj and John Cooper (our resident engineer)
 - Update project status and identify any outstanding issues (in reports to your Manager)
 - Plan on all new equipment arrival on-site and managing the install with the local fabricator
 - Daily checks on the installation process, making sure the installation is done per the design and per the drawings.
 - Keep track of all things that are being done and updating Manager
 - Vendor selection and coordination of their tasks (electrical/automation/etc.).

Plant Start-Up



- **Plant Start-up**

- Setting up of the process and procedures for the startup
- Interview prospective operators to run the plant
- Your Manager would make the final call
- Commissioning the plant (equipment-wise checks, water/leak test, and any fixes, etc.)
- Startup of the plant (bringing in the fluids, process starts, biodiesel production).

- **Training and Commissioning**

- Training (3 weeks) – train the trainer
- The plant manager would be recruited within the first 2 or 3 months of the project start
- We will be training this person along the way for 3 weeks
- Plant Manager will exclusively work on the plant and with other operators who are already recruited
- The Plant Manager would be the lead person and knows everything about everything, he will take control after we leave with us providing the guidance
- The Plant Manager and Operators would also be trained on our benchtop system, so they understand how the system works before they get trained on the production system
- Any additional training can be done with our standard rate of \$150/hr (6 hours minimum, travel time at half the rate)
- We will provide 3 hours of free phone-based support per day for the first 3 months.

Plant Start-Up



- **Cost Estimates**

○ Dismantling and transportation to Marysville, reinstall per our specs. – a company that can do both is preferable	\$1, 500,000
○ Balance on-site piping/assembling/electrical and automation – this could be a local company that can do it all	800,000
○ Balance equipment (dryers/settling) – we can get this from US or India depending on the time we have	365,000
○ Civil work on-site, (pads, etc.) – to prep the ground and bringing in Electricals/gas/permits	200,000
○ Contingency: Any equipment damages/fixes or just plain contingency	500,000
○ You are free to negotiate all of the above costs directly with vendor	

- **Engineering and Project Management**

○ After signing CHS contract	300,000
○ Beginning of 2 nd month	300,000
○ Beginning of 3 rd month	250,000
○ Beginning of 4 th month	250,000
○ Beginning of 5 th month	250,000
○ Beginning of 6 th month	250,000
○ Beginning of 7 th month (payment after commissioning the plant, Startup, and Training	100,000
○ All other payments that are shown under "cost estimates" above (for moving/civil work, etc.) due as per vendor schedule/invoiced.	

TOTAL

\$5,065,000

PLANT COST TO CHS

<3,000,000