

**Pre-Feasibility Study for a Bioethanol Industry in Maine
Production Assumptions**

Denatured Ethanol Production (gal/yr)	31,500,000	Average ROI		7.8%							
Anhydrous Ethanol Production (gal/yr)	30,000,000										
Product Yields & Energy Consumption	1st year	2nd year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year	Annual
	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Operations	Escalation
Ethanol Yield (gal/bu)	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	
Ethanol Selling Price (\$/gal)	\$1.250	\$1.275	\$1.301	\$1.327	\$1.353	\$1.380	\$1.408	\$1.436	\$1.465	\$1.494	2.00%
Ethanol Sales Commission (%)	1.000%	1.015%	1.030%	1.046%	1.061%	1.077%	1.093%	1.110%	1.126%	1.143%	1.50%
Ethanol Transportation (\$/gal)	\$0.040	\$0.041	\$0.042	\$0.042	\$0.043	\$0.044	\$0.045	\$0.046	\$0.047	\$0.048	2.00%
State Producer Payment (\$/gal)	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	
Federal Small Producer Payment (\$/gal)	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	
Delivered Grain Price (\$/bu)	\$2.850	\$2.879	\$2.907	\$2.936	\$2.966	\$2.995	\$3.025	\$3.056	\$3.086	\$3.117	1.00%
Grain Storage & Transportation (\$/bu)	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	1.50%
Grain Usage (bu/yr)	11,235,955	11,235,955	11,235,955	11,235,955	11,235,955	11,235,955	11,235,955	11,235,955	11,235,955	11,235,955	
Grain Test Weight (lb/bu)	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	56.000	
Distillers Grain Yield (lb/bu)	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	
Distillers Grain Price, FOB (\$/ton)	\$100.000	\$101.000	\$102.010	\$103.030	\$104.060	\$105.101	\$106.152	\$107.214	\$108.286	\$109.369	1.00%
Distillers Grain Transportation (\$/ton)	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	2.00%
DG Sales Commission (% of sales)	2.000%	2.030%	2.060%	2.091%	2.123%	2.155%	2.187%	2.220%	2.253%	2.287%	1.50%
Carbon Dioxide (CO2) Sold (lb/gal)	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	
CO2 Price (\$/ton)	\$12.000	\$12.120	\$12.241	\$12.364	\$12.487	\$12.612	\$12.738	\$12.866	\$12.994	\$13.124	1.00%
Electricity Use (kWh/bu)	2.136	2.136	2.136	2.136	2.136	2.136	2.136	2.136	2.136	2.136	
Electricity Price (\$/kWh)	\$0.0500	\$0.0510	\$0.0520	\$0.0531	\$0.0541	\$0.0552	\$0.0563	\$0.0574	\$0.0586	\$0.0598	2.00%
Steam Use (BTU/bu)	0.0889	0.0889	0.0889	0.0889	0.0889	0.0889	0.0889	0.0889	0.0889	0.0889	
Steam Price (\$/MMBTU)	\$6.5000	\$6.6300	\$6.7626	\$6.8979	\$7.0358	\$7.1765	\$7.3201	\$7.4665	\$7.6158	\$7.7681	2.00%
Fresh Water Use (1000 gal/bu)	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	
Fresh Water Price (\$/1000 gal)	\$2.0000	\$2.0200	\$2.0402	\$2.0606	\$2.0812	\$2.1020	\$2.1230	\$2.1443	\$2.1657	\$2.1874	1.00%
Wastewater Disposal (1000 gal/bu)	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
Wastewater Disposal Price (\$/1000 gal)	\$3.0000	\$3.0300	\$3.0603	\$3.0909	\$3.1218	\$3.1530	\$3.1846	\$3.2164	\$3.2486	\$3.2811	1.00%
Denaturant Use (% of ethanol sold)	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%	
Denaturant Price (\$/gal)	\$0.6500	\$0.6630	\$0.6763	\$0.6898	\$0.7036	\$0.7177	\$0.7320	\$0.7466	\$0.7616	\$0.7768	2.00%
Chemicals & Enzymes Cost (\$/gal etoh)	\$0.0800	\$0.0808	\$0.0816	\$0.0824	\$0.0832	\$0.0841	\$0.0849	\$0.0858	\$0.0866	\$0.0875	1.00%
Number of Employees	31	31	31	31	31	31	31	31	31	31	
Average Salary Including Benefits	\$46,716	\$47,884	\$49,081	\$50,308	\$51,566	\$52,855	\$54,176	\$55,531	\$56,919	\$58,342	2.50%
Maintenance Materials & Services	2.000%	2.030%	2.060%	2.091%	2.123%	2.155%	2.187%	2.220%	2.253%	2.287%	1.50%
Property Tax & Insurance	1.500%	1.515%	1.530%	1.545%	1.561%	1.577%	1.592%	1.608%	1.624%	1.641%	1.00%
All Other Expense Categories											2.00%
Operating Days Per Year	350										

**Pre-Feasibility Study for a Bioethanol Industry in Maine
Financial Assumptions**

Ethanol Plant Engineering & Construction Costs

Capital Equipment Cost & Installation	\$34,000,000
Engineering Expense	\$2,000,000
Construction Mgt. & Procurement Fees	\$3,000,000
Total	\$39,000,000

\$1.30 per gallon

Inventories

	<u>Accounts Receivable</u> (#Days)	<u>Accounts Payable</u> (#Days)	<u>Inventories</u> (#Days)
Fuel Ethanol	10		8
Distillers Grain	10		8
Denaturants		10	10
Chemicals & Enzymes		15	15
Grain		10	10
Utilities		15	

Owner's Costs

Inventory - Grain	\$915,000
Inventory - Chemicals/Yeast/Denaturant	\$131,000
Inventory - Ethanol & DDGS	\$1,131,000
Spare Parts	\$300,000
Startup Costs	\$750,000
Organizational Costs	\$300,000
Permits, Legal, Management & Misc.	\$300,000
Rolling Stock & Shop Equipment	\$150,000
Working Capital	\$780,000
Capitalized Fees and Interest	\$1,170,000
Land	\$200,000
Total Estimated Project Cost	\$45,127,000

Tax Incentives (\$/gal)

Year	Blenders Credit		State Producer Payment
	<u>Federal</u>	<u>State</u>	
1	\$0.052	\$0.000	\$0.000
2	\$0.052	\$0.000	\$0.000
3	\$0.051	\$0.000	\$0.000
4	\$0.051	\$0.000	\$0.000
5	\$0.051	\$0.000	\$0.000
6	\$0.051	\$0.000	\$0.000
7	\$0.051	\$0.000	\$0.000
8	\$0.051	\$0.000	\$0.000
9	\$0.051	\$0.000	\$0.000
10	\$0.051	\$0.000	\$0.000

Production Schedule

Month	Plant Operating Rate
13	0.00%
14	50.00%
15	100.00%
16	100.00%
17	100.00%
18	100.00%
19	100.00%
20	100.00%
21	100.00%
22	100.00%
23	100.00%
24	100.00%
25	0.00%

Senior Debt

Principal	\$27,076,200	60.00%
Interest Rate	8.0%	fixed
Lender Fees	\$270,762	1.000%
Placement Fees	\$0	0.000%
Amortization Period	10	years
Cash Sweep	0.000%	

Subordinated Debt

Principal	\$0	0.00%
Interest Rate	0.00%	
Lender Fees	\$0	0.000%
Placement Fees	\$0.00	0.000%
Amortization Period	0	years

Common Equity Investment

Total Equity Amount	\$18,050,800	40.00%
Placement Fees	\$180,508	1.000%
Preferred Shares	\$0	0.000%
Common Shares	\$18,050,800	100.000%

Interest Rates

Income Tax Rate	0.00%
Investment Interest	3.00%
Operating Line Interest	8.00%

Grants

Amount	\$0	0.00%
--------	-----	-------

**Pre-Feasibility Study for a Bioethanol Industry in Maine
Proforma Balance Sheet**

	Construction (Year 0)	1st Year <u>Operations</u>	2nd Year <u>Operations</u>	3rd Year <u>Operations</u>	4th Year <u>Operations</u>	5th Year <u>Operations</u>	6th Year <u>Operations</u>	7th Year <u>Operations</u>	8th Year <u>Operations</u>	9th Year <u>Operations</u>	10th Year <u>Operations</u>
ASSETS											
Current Assets:											
Cash & Cash Equivalents	0	0	0	0	0	88,300	1,129,013	2,499,054	4,206,259	6,258,553	8,663,949
Accounts Receivable - Trade	0	1,366,843	1,385,023	1,409,596	1,434,625	1,460,118	1,486,083	1,512,530	1,539,467	1,566,904	1,594,850
Inventories											
Feedstock	0	914,928	924,077	933,318	942,651	952,078	961,598	971,214	980,926	990,736	1,000,643
Chemicals, Enzymes & Yeast	0	102,857	103,886	104,925	105,974	107,034	108,104	109,185	110,277	111,380	112,493
Denaturant	0	27,857	28,414	28,983	29,562	30,153	30,757	31,372	31,999	32,639	33,292
Finished Product Inventory	0	1,104,289	1,108,018	1,127,677	1,147,700	1,168,094	1,188,867	1,210,024	1,231,573	1,253,523	1,275,880
Total Inventories	0	2,149,931	2,164,395	2,194,902	2,225,887	2,257,359	2,289,325	2,321,795	2,354,776	2,388,277	2,422,308
Prepaid Expenses	0	0	0	0	0	0	0	0	0	0	0
Other Current Assets	0	0	0	0	0	0	0	0	0	0	0
Total Current Assets	0	3,516,774	3,549,418	3,604,499	3,660,513	3,805,777	4,904,422	6,333,379	8,100,502	10,213,734	12,681,106
Land	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Property, Plant & Equipment											
Property, Plant & Equipment, at cost	33,985,714	39,600,000	39,650,000	39,700,000	39,750,000	39,800,000	39,850,000	39,900,000	39,950,000	40,000,000	40,050,000
Less Accumulated Depreciation & Amortiz.	0	1,711,087	3,468,587	5,228,587	6,991,087	8,756,087	10,523,587	12,293,587	14,066,087	15,841,087	17,618,587
Net Property, Plant & Equipment	33,985,714	37,888,913	36,181,413	34,471,413	32,758,913	31,043,913	29,326,413	27,606,413	25,883,913	24,158,913	22,431,413
Capitalized Fees & Interest	730,404	1,051,687	946,518	841,349	736,181	631,012	525,843	420,675	315,506	210,337	105,169
Total Assets	34,916,118	42,657,374	40,877,349	39,117,261	37,355,607	35,680,702	34,956,678	34,560,467	34,499,921	34,782,985	35,417,688
LIABILITIES & EQUITIES											
Current Liabilities:											
Accounts Payable	0	1,016,596	1,056,377	1,067,225	1,078,187	1,089,265	1,100,459	1,111,771	1,123,202	1,134,754	1,146,428
Notes Payable	0	731,480	939,615	916,002	584,099	0	0	0	0	0	0
Current Maturities of Long Term Debt	0	1,969,193	2,132,635	2,309,643	2,501,342	2,708,953	2,933,794	3,177,298	3,441,012	3,726,614	650,506
Current maturities of Subordinated Debt	0	0	0	0	0	0	0	0	0	0	0
Total Current Liabilities	0	3,717,270	4,128,628	4,292,871	4,163,629	3,798,217	4,034,253	4,289,069	4,564,214	4,861,369	1,796,934
Long Term Debt (excluding current maturities)	17,743,582	23,581,797	21,449,162	19,139,519	16,638,177	13,929,224	10,995,430	7,818,132	4,377,120	650,506	0
Subordinated Debt (excluding current maturiti	0	0	0	0	0	0	0	0	0	0	0
Deferred Income Taxes	0	0	0	0	0	0	0	0	0	0	0
Total Liabilities	17,743,582	27,299,067	25,577,790	23,432,390	20,801,805	17,727,441	15,029,683	12,107,201	8,941,334	5,511,874	1,796,934
Capital Shares & Equities											
Preferred Shares	0	0	0	0	0	0	0	0	0	0	0
Common Shares	18,050,800	18,050,800	18,050,800	18,050,800	18,050,800	18,050,800	18,050,800	18,050,800	18,050,800	18,050,800	18,050,800
Grants	0	0	0	0	0	0	0	0	0	0	0
Retained Earnings	(878,264)	(2,692,493)	(2,751,240)	(2,365,928)	(1,496,999)	(97,539)	1,876,195	4,402,466	7,507,787	11,220,310	15,569,954
Total Capital Shares & Equities	17,172,536	15,358,307	15,299,560	15,684,872	16,553,801	17,953,261	19,926,995	22,453,266	25,558,587	29,271,110	33,620,754
Total Liabilities & Equities	34,916,118	42,657,374	40,877,349	39,117,261	37,355,607	35,680,702	34,956,678	34,560,467	34,499,921	34,782,985	35,417,688

**Pre-Feasibility Study for a Bioethanol Industry in Maine
Proforma Income Statements**

	Construction (Year 0)	1st Year <u>Operations</u>	2nd Year <u>Operations</u>	3rd Year <u>Operations</u>	4th Year <u>Operations</u>	5th Year <u>Operations</u>	6th Year <u>Operations</u>	7th Year <u>Operations</u>	8th Year <u>Operations</u>	9th Year <u>Operations</u>	10th Year <u>Operations</u>
Sales											
Ethanol	0	32,143,894	38,469,651	39,232,807	40,011,006	40,804,540	41,613,710	42,438,819	43,280,177	44,138,100	45,012,911
Distillers Grain	0	8,388,202	10,006,149	10,103,070	10,200,880	10,299,588	10,399,200	10,499,723	10,601,163	10,703,529	10,806,827
Carbon Dioxide	0	787,500	909,000	918,090	927,271	936,544	945,909	955,368	964,922	974,571	984,317
State Producer Payment	0	0	0	0	0	0	0	0	0	0	0
Federal Small Producer Payment	0	1,342,125	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Total Sales	0	42,661,721	50,884,800	51,753,966	52,639,157	53,540,672	54,458,819	55,393,910	56,346,262	57,316,200	58,304,054
Production & Operating Expenses											
Feedstocks	0	28,934,591	32,342,697	32,666,124	32,992,785	33,322,713	33,655,940	33,992,499	34,332,424	34,675,748	35,022,506
Chemicals, Enzymes & Yeast	0	2,100,000	2,424,000	2,448,240	2,472,722	2,497,450	2,522,424	2,547,648	2,573,125	2,598,856	2,624,845
Utilities - Steam	0	5,681,813	6,623,370	6,755,837	6,890,954	7,028,773	7,169,349	7,312,736	7,458,990	7,608,170	7,760,334
Electricity	0	1,050,000	1,224,000	1,248,480	1,273,450	1,298,919	1,324,897	1,351,395	1,378,423	1,405,991	1,434,111
Denaturants	0	853,125	994,500	1,014,390	1,034,678	1,055,371	1,076,479	1,098,008	1,119,969	1,142,368	1,165,215
Makeup Water	0	255,618	295,056	298,007	300,987	303,997	307,037	310,107	313,208	316,340	319,504
Wastewater Disposal	0	88,483	102,135	103,156	104,188	105,230	106,282	107,345	108,418	109,502	110,597
Direct Labor & Benefits	69,225	830,700	851,468	872,754	894,573	916,937	939,861	963,357	987,441	1,012,127	1,037,430
Total Production Costs	69,225	39,794,329	44,857,225	45,406,988	45,964,336	46,529,389	47,102,268	47,683,096	48,271,998	48,869,104	49,474,542
Gross Profit	(69,225)	2,867,392	6,027,575	6,346,978	6,674,820	7,011,283	7,356,551	7,710,814	8,074,264	8,447,097	8,829,513
Administrative & Overhead Expenses											
Maintenance Materials & Services	0	595,000	690,200	700,553	711,061	721,727	732,553	743,541	754,695	766,015	777,505
Maintenance - Wages & Benefits	24,158	289,900	297,148	304,576	312,191	319,995	327,995	336,195	344,600	353,215	362,045
Consulting Services	84,000	24,000	24,480	24,970	25,469	25,978	26,498	27,028	27,568	28,120	28,682
Property Taxes & Insurance	102,557	512,786	577,047	556,690	535,830	514,458	492,565	470,143	447,184	423,677	399,615
Admin. Salaries, Wages & Benefits	178,967	327,600	335,790	344,185	352,789	361,609	370,649	379,916	389,413	399,149	409,128
Organizational Costs/Community Affairs	281,143	36,000	36,720	37,454	38,203	38,968	39,747	40,542	41,353	42,180	43,023
Office/Lab Supplies & Expenses	72,000	72,000	73,440	74,909	76,407	77,935	79,494	81,084	82,705	84,359	86,047
Travel, Training & Miscellaneous	66,214	30,200	30,804	31,420	32,048	32,689	33,343	34,010	34,690	35,384	36,092
EBITD	(878,264)	979,906	3,961,946	4,272,221	4,590,821	4,917,923	5,253,707	5,598,355	5,952,056	6,314,998	6,687,376
Less:											
Interest - Operating Line of Credit	0	0	58,518	75,169	73,280	46,728	0	0	0	0	0
Interest - Senior Debt	0	1,083,048	2,099,506	1,946,571	1,780,943	1,601,567	1,407,303	1,196,916	969,066	722,305	455,063
Interest - Subordinated Debt	0	0	0	0	0	0	0	0	0	0	0
Depreciation & Amortization	0	1,711,087	1,862,669	1,865,169	1,867,669	1,870,169	1,872,669	1,875,169	1,877,669	1,880,169	1,882,669
Pre-Tax Income	(878,264)	(1,814,229)	(58,747)	385,312	868,930	1,399,459	1,973,735	2,526,271	3,105,321	3,712,524	4,349,644
Current Income Taxes	0	0	0	0	0	0	0	0	0	0	0
Net Earnings (Loss) for the Year	(878,264)	(1,814,229)	(58,747)	385,312	868,930	1,399,459	1,973,735	2,526,271	3,105,321	3,712,524	4,349,644

**Pre-Feasibility Study for a Bioethanol Industry in Maine
Proforma Statements of Cash Flows**

	Construction (Year 0)	1st Year <u>Operations</u>	2nd Year <u>Operations</u>	3rd Year <u>Operations</u>	4th Year <u>Operations</u>	5th Year <u>Operations</u>	6th Year <u>Operations</u>	7th Year <u>Operations</u>	8th Year <u>Operations</u>	9th Year <u>Operations</u>	10th Year <u>Operations</u>
Cash provided by (used in)											
Operating Activities											
Net Earnings (loss)	(878,264)	(1,814,229)	(58,747)	385,312	868,930	1,399,459	1,973,735	2,526,271	3,105,321	3,712,524	4,349,644
Non cash charges to operations											
Depreciation & Amortization	0	1,711,087	1,862,669	1,865,169	1,867,669	1,870,169	1,872,669	1,875,169	1,877,669	1,880,169	1,882,669
	(878,264)	(103,142)	1,803,921	2,250,481	2,736,598	3,269,628	3,846,403	4,401,439	4,982,989	5,592,692	6,232,312
Changes in non-cash working capital balances											
Accounts Receivable	0	1,366,843	18,179	24,574	25,029	25,493	25,965	26,447	26,937	27,437	27,946
Inventories	0	2,149,931	14,464	30,507	30,985	31,472	31,966	32,469	32,981	33,501	34,031
Prepaid Expenses	0	0	0	0	0	0	0	0	0	0	0
Accounts Payable	0	(1,016,596)	(39,781)	(10,848)	(10,962)	(11,077)	(11,194)	(11,312)	(11,431)	(11,552)	(11,674)
Income Taxes Payable	0	0	0	0	0	0	0	0	0	0	0
	0	2,500,178	(7,137)	44,232	45,052	45,887	46,737	47,604	48,487	49,386	50,303
Investing Activities											
Land Purchase	200,000	0	0	0	0	0	0	0	0	0	0
Fixed Asset Purchases	33,985,714	5,614,286	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Capitalized Fees & Interest	730,404	321,283	0	0	0	0	0	0	0	0	0
	34,916,118	5,935,569	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Financing Activities											
Long Term Debt Advances	17,743,582	9,332,618	0	0	0	0	0	0	0	0	0
Repayment of Long Term Debt	0	(1,525,209)	(1,969,193)	(2,132,635)	(2,309,643)	(2,501,342)	(2,708,953)	(2,933,794)	(3,177,298)	(3,441,012)	(3,726,614)
Subordinated Debt Advances	0	0	0	0	0	0	0	0	0	0	0
Repayment of Subordinated Debt	0	0	0	0	0	0	0	0	0	0	0
Equity Investment	18,050,800	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0
Cash Sweep for Debt Service	0	0	0	0	0	0	0	0	0	0	0
Distributions to Shareholders	0	0	0	0	0	0	0	0	0	0	0
Net Increase (Decrease) in Cash	0	(731,480)	(208,135)	23,613	331,903	672,399	1,040,713	1,370,041	1,707,205	2,052,294	2,405,395
Cash (Indebtedness), Beginning of Year	0	0	(731,480)	(939,615)	(916,002)	(584,099)	88,300	1,129,013	2,499,054	4,206,259	6,258,553
Cash (Bank Indebtedness), End of Year	0	(731,480)	(939,615)	(916,002)	(584,099)	88,300	1,129,013	2,499,054	4,206,259	6,258,553	8,663,949

Interim Funding Schedule
Months 1-24

Month	Project Development	Fees & Other Expenses	Cash		Equity/Grant Investment	Subordinated Debt	Interest	
			Required By Operations	Current Month Disbursements			Payment (Earnings)	Loan (Equity) Balance
1	3,007,143	485,841	9,750	3,502,734	(18,050,800)	0	(36,370)	(14,584,436)
2	2,807,143	34,571	9,750	2,851,464	0	0	(29,332)	(11,762,304)
3	2,807,143	34,571	9,750	2,851,464	0	0	(22,277)	(8,933,117)
4	2,807,143	34,571	9,750	2,851,464	0	0	(15,204)	(6,096,857)
5	2,807,143	34,571	9,750	2,851,464	0	0	(8,113)	(3,253,506)
6	2,807,143	34,571	9,750	2,851,464	0	0	(1,005)	(403,047)
7	2,807,143	34,571	18,633	2,860,348	0	0	16,382	2,473,683
8	2,807,143	34,571	18,633	2,860,348	0	0	35,560	5,369,591
9	2,807,143	34,571	18,633	2,860,348	0	0	54,866	8,284,805
10	2,807,143	40,071	18,633	2,865,848	0	0	74,338	11,224,990
11	2,807,143	40,071	18,633	2,865,848	0	0	93,939	14,184,776
12	3,107,143	40,071	120,683	3,267,898	0	0	116,351	17,569,025
13	2,807,143	12,100	2,222,957	5,042,200	0	0	150,742	22,761,967
14	2,807,143	12,100	0	2,819,243	0	0	170,541	25,751,751
15	0	6,600	0	6,600	0	0	171,722	25,930,073
16	0	6,600	0	6,600	0	0	172,911	26,109,585
17	0	6,600	0	6,600	0	0	174,108	26,290,292
18	0	6,600	0	6,600	0	0	175,313	26,472,205
19	0	6,600	0	6,600	0	0	176,525	26,655,330
20	0	6,600	0	6,600	0	0	177,746	26,839,677
21	0	6,600	0	6,600	0	0	178,975	27,025,252
22	0	6,600	0	6,600	0	0	180,212	27,212,064
23	0	6,600	0	6,600	0	0	181,458	27,400,122
24	0	6,600	0	6,600	0	0	182,711	27,589,433
Total	39,800,000	972,827	2,466,057	43,268,134	(18,050,800)	0	2,372,099	27,589,433

**Pre-Feasibility Study for a Bioethanol Industry in Maine
Engineering & Construction Cost Summary**

<u>Month</u>	<u>Land</u>	<u>Spare Parts</u>	<u>Equipment & Installation</u>	<u>Engineering Fees</u>	<u>Construction & Procurement Fees</u>	<u>Permits Legal Misc.</u>	<u>Monthly Total</u>
1	200,000	0	2,428,571	142,857	214,286	21,429	3,007,143
2	0	0	2,428,571	142,857	214,286	21,429	2,807,143
3	0	0	2,428,571	142,857	214,286	21,429	2,807,143
4	0	0	2,428,571	142,857	214,286	21,429	2,807,143
5	0	0	2,428,571	142,857	214,286	21,429	2,807,143
6	0	0	2,428,571	142,857	214,286	21,429	2,807,143
7	0	0	2,428,571	142,857	214,286	21,429	2,807,143
8	0	0	2,428,571	142,857	214,286	21,429	2,807,143
9	0	0	2,428,571	142,857	214,286	21,429	2,807,143
10	0	0	2,428,571	142,857	214,286	21,429	2,807,143
11	0	0	2,428,571	142,857	214,286	21,429	2,807,143
12	0	\$300,000	2,428,571	142,857	214,286	21,429	3,107,143
13	0	0	2,428,571	142,857	214,286	21,429	2,807,143
14	0	0	2,428,571	142,857	214,286	21,429	2,807,143
15	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0
TOTAL	<u>200,000</u>	<u>300,000</u>	<u>34,000,000</u>	<u>2,000,000</u>	<u>3,000,000</u>	<u>300,000</u>	<u>39,800,000</u>

**Pre-Feasibility Study for a Bioethanol Industry in Maine
Production & Sales, Months 13-23**

	<u>Month 13</u>	<u>Month 14</u>	<u>Month 15</u>	<u>Month 16</u>	<u>Month 17</u>	<u>Month 18</u>	<u>Month 19</u>	<u>Month 20</u>	<u>Month 21</u>	<u>Month 22</u>	<u>Month 23</u>
Fuel Ethanol											
Gallons Produced	0	1,250,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Gallons Sent to Inventory	685,714	0	0	0	0	0	0	0	0	0	0
Denaturant Added	0	62,500	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000
Net Gallons Sold (Denatured)	-720,000	1,312,500	2,625,000	2,625,000	2,625,000	2,625,000	2,625,000	2,625,000	2,625,000	2,625,000	2,625,000
Selling Price/Gallon (FOB Plant)	\$1.1975	\$1.1975	\$1.1975	\$1.1975	\$1.1975	\$1.1975	\$1.1975	\$1.1975	\$1.1975	\$1.1975	\$1.1975
State Producer Payment	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
Federal Small Producer Payment	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050
Total Revenue - Fuel Ethanol	-898,200	1,637,344	3,274,688	3,274,688	3,274,688	3,274,688	3,274,688	3,274,688	3,274,688	3,274,688	3,274,688
Distillers Grain											
Tons Produced	0	4,213	8,427	8,427	8,427	8,427	8,427	8,427	8,427	8,427	8,427
Tons Sent to Inventory	2,889	0	0	0	0	0	0	0	0	0	0
Net Tons Sold	-2,889	4,213	8,427	8,427	8,427	8,427	8,427	8,427	8,427	8,427	8,427
Selling Price/Ton (FOB Plant)	\$98.00	\$98.00	\$98.00	\$98.00	\$98.00	\$98.00	\$98.00	\$98.00	\$98.00	\$98.00	\$98.00
Total Revenue - Distillers Grain	-283,146	412,921	825,843	825,843	825,843	825,843	825,843	825,843	825,843	825,843	825,843
CO₂											
Tons Produced	0	3,125	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250
Tons Sent to Inventory	0	0	0	0	0	0	0	0	0	0	0
Net Tons Sold	0	3,125	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250
Selling Price/Ton	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00
Total Revenue - CO₂	0	37,500	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Total Revenue - All Products	-1,181,346	2,087,765	4,175,530	4,175,530	4,175,530	4,175,530	4,175,530	4,175,530	4,175,530	4,175,530	4,175,530

**Pre-Feasibility Study for a Bioethanol Industry in Maine
Operating Expense, Months 13-23**

	<u>Month 13</u>	<u>Month 14</u>	<u>Month 15</u>	<u>Month 16</u>	<u>Month 17</u>	<u>Month 18</u>	<u>Month 19</u>	<u>Month 20</u>	<u>Month 21</u>	<u>Month 22</u>	<u>Month 23</u>
Plant Operating Rate	0.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Bushels Grain for Processing	0	468,165	936,330	936,330	936,330	936,330	936,330	936,330	936,330	936,330	936,330
Bushels Grain to Inventory	321,027	0	0	0	0	0	0	0	0	0	0
\$/Bushel Grain (Delivered)	\$2.850	\$2.850	\$2.850	\$2.850	\$2.850	\$2.850	\$2.850	\$2.850	\$2.850	\$2.850	\$2.850
Grain Expense	914,928	1,334,270	2,668,539	2,668,539	2,668,539	2,668,539	2,668,539	2,668,539	2,668,539	2,668,539	2,668,539
Total Feedstock Expense	914,928	1,334,270	2,668,539	2,668,539	2,668,539	2,668,539	2,668,539	2,668,539	2,668,539	2,668,539	2,668,539
Electricity (KWH)	0	1,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
\$/KWH	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500
Electricity Expense	0	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Steam (MMBTU)	0	41,625	83,250	83,250	83,250	83,250	83,250	83,250	83,250	83,250	83,250
\$/MMBTU	\$6.5000	\$6.5000	\$6.5000	\$6.5000	\$6.5000	\$6.5000	\$6.5000	\$6.5000	\$6.5000	\$6.5000	\$6.5000
Steam Expense	0	270,563	541,125	541,125	541,125	541,125	541,125	541,125	541,125	541,125	541,125
Fresh Water ('000 Gal.)	0	6,086	12,172	12,172	12,172	12,172	12,172	12,172	12,172	12,172	12,172
\$/1000 Gal.	\$2.0000	\$2.0000	\$2.0000	\$2.0000	\$2.0000	\$2.0000	\$2.0000	\$2.0000	\$2.0000	\$2.0000	\$2.0000
Fresh Water Expense	0	12,172	24,345	24,345	24,345	24,345	24,345	24,345	24,345	24,345	24,345
Effluent Disposal ('000 Gal)	0	1,404	2,809	2,809	2,809	2,809	2,809	2,809	2,809	2,809	2,809
\$/1000 Gal.	\$3.0000	\$3.0000	\$3.0000	\$3.0000	\$3.0000	\$3.0000	\$3.0000	\$3.0000	\$3.0000	\$3.0000	\$3.0000
Effluent Disposal Expense	0	4,213	8,427	8,427	8,427	8,427	8,427	8,427	8,427	8,427	8,427
Labor & Benefits	120,683	120,683	120,683	120,683	120,683	120,683	120,683	120,683	120,683	120,683	120,683
Maintenance Materials & Services	0	28,333	56,667	56,667	56,667	56,667	56,667	56,667	56,667	56,667	56,667
Taxes & Insurance	0	21,366	42,732	42,732	42,732	42,732	42,732	42,732	42,732	42,732	42,732
Denaturants	0	40,625	81,250	81,250	81,250	81,250	81,250	81,250	81,250	81,250	81,250
Chemicals, Enzymes & Yeast	0	100,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Office/Lab Supplies & Expenses	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Total Monthly Expense (non-feedstock)	126,683	653,956	1,181,229	1,181,229	1,181,229	1,181,229	1,181,229	1,181,229	1,181,229	1,181,229	1,181,229
Total Monthly Profit (Loss)	(2,222,957)	99,539	325,762	325,762	325,762	325,762	325,762	325,762	325,762	325,762	325,762

**Pre-Feasibility Study for a Bioethanol Industry in Maine
Interim Period Fees & Expenses
Months 1-24**

<u>Month</u>	<u>Lender/ Placement Fees</u>	<u>Organization Costs</u>	<u>Political/ Community Relations</u>	<u>Financial Consultants</u>	<u>Construction Consultants</u>	<u>Hiring & Training</u>	<u>Travel</u>	<u>Contingency @ 10%</u>	<u>Monthly Total</u>
1	451,270	21,429	2,000	2,000	5,000	0	1,000	3,143	485,841
2	0	21,429	2,000	2,000	5,000	0	1,000	3,143	34,571
3	0	21,429	2,000	2,000	5,000	0	1,000	3,143	34,571
4	0	21,429	2,000	2,000	5,000	0	1,000	3,143	34,571
5	0	21,429	2,000	2,000	5,000	0	1,000	3,143	34,571
6	0	21,429	2,000	2,000	5,000	0	1,000	3,143	34,571
7	0	21,429	2,000	2,000	5,000	0	1,000	3,143	34,571
8	0	21,429	2,000	2,000	5,000	0	1,000	3,143	34,571
9	0	21,429	2,000	2,000	5,000	0	1,000	3,143	34,571
10	0	21,429	2,000	2,000	5,000	5,000	1,000	3,643	40,071
11	0	21,429	2,000	2,000	5,000	5,000	1,000	3,643	40,071
12	0	21,429	2,000	2,000	5,000	5,000	1,000	3,643	40,071
13	0	2,000	1,000	2,000	0	5,000	1,000	1,100	12,100
14	0	2,000	1,000	2,000	0	5,000	1,000	1,100	12,100
15	0	2,000	1,000	2,000	0	0	1,000	600	6,600
16	0	2,000	1,000	2,000	0	0	1,000	600	6,600
17	0	2,000	1,000	2,000	0	0	1,000	600	6,600
18	0	2,000	1,000	2,000	0	0	1,000	600	6,600
19	0	2,000	1,000	2,000	0	0	1,000	600	6,600
20	0	2,000	1,000	2,000	0	0	1,000	600	6,600
21	0	2,000	1,000	2,000	0	0	1,000	600	6,600
22	0	2,000	1,000	2,000	0	0	1,000	600	6,600
23	0	2,000	1,000	2,000	0	0	1,000	600	6,600
24	0	2,000	1,000	2,000	0	0	1,000	600	6,600
TOTAL	451,270	281,143	36,000	48,000	60,000	25,000	24,000	47,414	972,827

**Pre-Feasibility Study for a Bioethanol Industry in Maine
Interim Period Labor Summary
Months 1-24**

Position	General Manager	Plant Manager	Bookkeeper	Commodity Manager	Administrative Assistant	Microbiologist	Lab Technician	Shift Team Leader	Shift Operator	Yard Labor
Number Employed	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(4)	(8)	(6)
Annual Salary	90,000	60,000	30,000	50,000	22,000	45,000	28,000	44,000	30,000	25,000
Month										
1	7,500	0	0	0	0	0	0	0	0	0
2	7,500	0	0	0	0	0	0	0	0	0
3	7,500	0	0	0	0	0	0	0	0	0
4	7,500	0	0	0	0	0	0	0	0	0
5	7,500	0	0	0	0	0	0	0	0	0
6	7,500	0	0	0	0	0	0	0	0	0
7	7,500	5,000	0	0	1,833	0	0	0	0	0
8	7,500	5,000	0	0	1,833	0	0	0	0	0
9	7,500	5,000	0	0	1,833	0	0	0	0	0
10	7,500	5,000	0	0	1,833	0	0	0	0	0
11	7,500	5,000	0	0	1,833	0	0	0	0	0
12	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
13	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
14	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
15	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
16	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
17	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
18	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
19	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
20	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
21	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
22	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
23	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500
24	7,500	5,000	2,500	4,167	1,833	3,750	2,333	14,667	20,000	12,500

Pre-Feasibility Study for a Bioethanol Indu
Interim Period Labor Summary
Months 1-24

Position	Maintenance Manager	Boiler Operator	Maintenance Worker	Welder	Electrician	Instrument Technician	Monthly Total	Benefits at 30.00%	TOTAL
Number Employed	(1)	(0)	(2)	(1)	(1)	(1)	(31)		
Annual Salary	50,000	40,000	33,000	35,000	35,000	37,000			
Month									
1	0	0	0	0	0	0	7,500	2,250	9,750
2	0	0	0	0	0	0	7,500	2,250	9,750
3	0	0	0	0	0	0	7,500	2,250	9,750
4	0	0	0	0	0	0	7,500	2,250	9,750
5	0	0	0	0	0	0	7,500	2,250	9,750
6	0	0	0	0	0	0	7,500	2,250	9,750
7	0	0	0	0	0	0	14,333	4,300	18,633
8	0	0	0	0	0	0	14,333	4,300	18,633
9	0	0	0	0	0	0	14,333	4,300	18,633
10	0	0	0	0	0	0	14,333	4,300	18,633
11	0	0	0	0	0	0	14,333	4,300	18,633
12	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
13	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
14	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
15	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
16	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
17	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
18	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
19	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
20	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
21	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
22	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
23	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683
24	4,167	0	5,500	2,917	2,917	3,083	92,833	27,850	120,683