

Appendix Q

Option 1 Ten Year Cash Flow Financial Analysis Format Example

Biomass/Cogen Facility

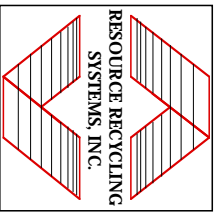
Summary of Financial Analysis Parameters

10 Year Cash Flow Analysis - Option 1

<u>Option 1 Summary</u>	
Total Production Tons (Feedstock Furnish)	165,200 tpy
Project Facility Capital Cost	\$26,206,481
Grant/Incentive/Capital Offset Funding	\$0
Total Project Capital Cost	\$28,067,141
Feedstock Tip Fee Revenue	\$5,988,500
Energy Revenue (Biogas, Electrical, Steam)	\$1,569,698
Compost Revenue	\$1,243,130
Recyclables Revenue (Metals, Plastic, etc.)	\$289,926
SubTotal Product Sales Revenue	\$3,102,754
Variable Cost	\$2,425,549
Semi Variable Cost	\$2,589,478
Total Operational Cost	\$5,015,027
Net Revenue	\$4,026,227
EBITA	\$5,319,727
Post Tax Internal Rate of Return (IRR)	12%
Pre Tax Internal Rate of Return (IRR)	14%
Senior Debt Service Coverage Ratio	1.50

Biomass/Cogen Facility - 10 Year Cash Flow Analysis - Option 1
Pre-Tax Cashflow Analysis
PROFORMA

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	3% escalation									
Energy Revenues										
Biogas	\$1,569.70									
Electricity	\$0.00									
Steam	\$0.00									
subtotal	\$1,569.70									
(000s)	\$1,570	\$1,617	\$1,665	\$1,715	\$1,767	\$1,820	\$1,874	\$1,931	\$1,988	\$2,048
Compost Revenues										
Standard	\$497.25									
Economy	\$745.88									
subtotal	\$1,243.13									
(000s)	\$1,243	\$1,280	\$1,319	\$1,358	\$1,399	\$1,441	\$1,484	\$1,529	\$1,575	\$1,622
Recyclables Revenues										
Mel./Plast./Other	\$289.93									
subtotal	\$289.93									
(000s)	\$290	\$299	\$308	\$317	\$326	\$336	\$346	\$357	\$367	\$378
Grand Total	\$3,102.75									
(000s)	\$3,103	\$3,196	\$3,292	\$3,390	\$3,492	\$3,597	\$3,705	\$3,816	\$3,930	\$4,048
Expenses	3% escalation									
Raw Material	165,200 tpy									
Animal Manure	41,300 tpy									
Animal Residuals	20,650 tpy									
Food Manufacturing/Processin	41,300 tpy									
Food Service Residuals	41,300 tpy									
Pulp and Paper Residuals	20,650 tpy									
Other Biomass (Specialty)	-									
subtotal	(\$5,989)	(\$6,138)	(\$6,292)	(\$6,449)	(\$6,610)	(\$6,775)	(\$6,945)	(\$7,118)	(\$7,296)	(\$7,479)
(000s)	(\$5,989)	(\$6,138)	(\$6,292)	(\$6,449)	(\$6,610)	(\$6,775)	(\$6,945)	(\$7,118)	(\$7,296)	(\$7,479)
Other Expenses										
Flocculant	\$330	\$340	\$351	\$361	\$372	\$383	\$395	\$406	\$419	\$431
Caustic	\$14	\$14	\$15	\$15	\$16	\$16	\$17	\$17	\$18	\$18
Compost Handling/Processing	\$165	\$170	\$175	\$181	\$186	\$192	\$197	\$203	\$209	\$216
Acid	\$11	\$11	\$11	\$12	\$12	\$12	\$13	\$13	\$14	\$14
Electricity	\$991	\$1,021	\$1,052	\$1,083	\$1,116	\$1,149	\$1,184	\$1,219	\$1,256	\$1,293
Water Supply	\$12	\$13	\$13	\$14	\$14	\$14	\$15	\$15	\$16	\$16
Steam Production	\$165	\$170	\$175	\$181	\$186	\$192	\$197	\$203	\$209	\$216
Waste Water Treatment	\$169	\$174	\$179	\$184	\$190	\$195	\$201	\$207	\$213	\$220
Product Transportation	\$299	\$308	\$318	\$327	\$337	\$347	\$358	\$368	\$379	\$391
Waste Disposal	\$268	\$277	\$285	\$293	\$302	\$311	\$321	\$330	\$340	\$350
Personnel - Salary	\$389	\$401	\$413	\$425	\$438	\$451	\$464	\$478	\$493	\$508
Corporate Management	\$318	\$327	\$337	\$347	\$357	\$368	\$379	\$390	\$402	\$414
Maintenance Mats./Op. Supplies	\$200	\$206	\$212	\$219	\$225	\$232	\$239	\$246	\$253	\$261
Property Tax	\$314	\$324	\$334	\$344	\$354	\$365	\$376	\$387	\$398	\$410
Fork Truck Lease	\$45	\$46	\$48	\$49	\$51	\$52	\$54	\$55	\$57	\$59
Insurance	\$80	\$82	\$85	\$87	\$90	\$93	\$96	\$98	\$101	\$104
subtotal	\$3,772	\$3,885	\$4,001	\$4,121	\$4,245	\$4,372	\$4,503	\$4,639	\$4,778	\$4,921
(000s)	\$3,772	\$3,885	\$4,001	\$4,121	\$4,245	\$4,372	\$4,503	\$4,639	\$4,778	\$4,921
Total Expenses	(\$2,217)	(\$2,254)	(\$2,290)	(\$2,328)	(\$2,365)	(\$2,403)	(\$2,441)	(\$2,480)	(\$2,519)	(\$2,558)
(000s)	(\$2,217)	(\$2,254)	(\$2,290)	(\$2,328)	(\$2,365)	(\$2,403)	(\$2,441)	(\$2,480)	(\$2,519)	(\$2,558)
EBITDA	\$5,320	\$5,449	\$5,582	\$5,718	\$5,857	\$6,000	\$6,146	\$6,296	\$6,449	\$6,606
(000s)	\$5,320	\$5,449	\$5,582	\$5,718	\$5,857	\$6,000	\$6,146	\$6,296	\$6,449	\$6,606
Required CAPEX	\$400	\$412	\$424	\$437	\$450	\$464	\$478	\$492	\$507	\$522
(000s)	\$400	\$412	\$424	\$437	\$450	\$464	\$478	\$492	\$507	\$522
Cashflow before Debt Service	\$4,920	\$5,037	\$5,158	\$5,281	\$5,407	\$5,536	\$5,669	\$5,804	\$5,943	\$6,084
(000s)	\$4,920	\$5,037	\$5,158	\$5,281	\$5,407	\$5,536	\$5,669	\$5,804	\$5,943	\$6,084
Senior Debt Service (@ 80%)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)
(000s)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)	(\$3,269)
Coverage Ratio	1.50	1.54	1.58	1.62	1.65	1.69	1.73	1.78	1.82	1.86
(000s)	1.50	1.54	1.58	1.62	1.65	1.69	1.73	1.78	1.82	1.86
Pre-Tax Cash Flow available to subordinated debt and equity	\$1,651	\$1,768	\$1,889	\$2,012	\$2,138	\$2,267	\$2,400	\$2,535	\$2,673	\$2,815
(000s)	\$1,651	\$1,768	\$1,889	\$2,012	\$2,138	\$2,267	\$2,400	\$2,535	\$2,673	\$2,815



**Biomass/Cogen Facility
10-Year Cash Flow Analysis - Option 1**

**Operating Analysis
Operating Proforma
Table 1. Ten Year Cash Flow Analysis - (\$000)**

Raw Material Cost (Delivered): -\$36.25 /ton
 Total Compost Production: 57,820 tpy
 Net Revenue (,000): \$4,026
 Post Tax IRR(Total Capital): 12%
 Pre Tax IRR (Total Capital): 14%

	Year	0	1	2	3	4	5	6	7	8	9	10
Project Facility Capital Cost		\$26,206	\$0									
Grants/Incentives		\$0	\$0									
Working Capital (@ 5% Proj. Cap.)		\$1,310	\$0									
Financing Costs (app. 1%)		\$550	\$0									
Total Project Capital Cost		\$28,067	\$0									
Net Revenue (See Table 2)			\$4,026	\$4,169	\$4,263	\$4,359	\$4,458	\$4,559	\$4,661	\$4,767	\$4,874	\$4,984
Required Capital Expenditure			(\$400)	(\$412)	(\$424)	(\$437)	(\$450)	(\$464)	(\$478)	(\$492)	(\$507)	(\$522)
EBITDA			(\$28,067)	\$3,626	\$3,757	\$3,839	\$3,922	\$4,008	\$4,095	\$4,184	\$4,275	\$4,367
Cumulative EBITDA			(\$28,067)	(\$24,441)	(\$20,684)	(\$16,846)	(\$12,923)	(\$8,916)	(\$4,821)	(\$637)	\$3,638	\$8,005
Pretax Internal Rate of Return			14%									
Less - Tax Depreciation			(\$2,676)	(\$2,676)	(\$2,676)	(\$2,676)	(\$2,676)	(\$2,676)	(\$2,676)	(\$2,676)	(\$2,676)	(\$2,676)
Net Profit Before Tax			\$951	\$1,081	\$1,163	\$1,247	\$1,332	\$1,419	\$1,508	\$1,599	\$1,692	\$1,786
Federal Tax			(\$323)	(\$368)	(\$395)	(\$424)	(\$453)	(\$483)	(\$513)	(\$544)	(\$575)	(\$607)
After Tax Income			\$627	\$713	\$768	\$823	\$879	\$937	\$995	\$1,055	\$1,116	\$1,179
Add Tax Depreciation			\$2,676	\$2,676	\$2,676	\$2,676	\$2,676	\$2,676	\$2,676	\$2,676	\$2,676	\$2,676
Cash Flow			(\$28,067)	\$3,303	\$3,389	\$3,443	\$3,498	\$3,555	\$3,612	\$3,671	\$3,731	\$3,792
Cumulative Cash Flow			(\$28,067)	(\$24,764)	(\$21,375)	(\$17,932)	(\$14,433)	(\$10,879)	(\$7,266)	(\$3,595)	\$136	\$3,928
Present Value Factor		1.00	0.89	0.79	0.71	0.63	0.56	0.50	0.45	0.40	0.35	0.32

Internal Rate of Return 12%

* Terminal Value of project assumed to be initial project capital investment.

**Biomass/Cogen Facility
10-Year Cash Flow Analysis - Option 1**

Table 2. Summary of Operating Revenues and Expenses (\$'000)

Year	0	1	2	3	4	5	6	7	8	9	10
Sale of Product (See Table 4)		\$3,103	\$3,196	\$3,292	\$3,390	\$3,492	\$3,597	\$3,705	\$3,816	\$3,930	\$4,048
State B&O Tax		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
City Tax		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Income after state/local taxes		\$3,103	\$3,196	\$3,292	\$3,390	\$3,492	\$3,597	\$3,705	\$3,816	\$3,930	\$4,048
Cost and Expenses											
Cost of Furnish (See Table 3)		(\$5,989)	(\$6,138)	(\$6,292)	(\$6,449)	(\$6,610)	(\$6,775)	(\$6,945)	(\$7,118)	(\$7,296)	(\$7,479)
Operating Costs (See Table 5)		\$5,015	\$5,165	\$5,320	\$5,480	\$5,644	\$5,814	\$5,988	\$6,168	\$6,353	\$6,543
New Training & Startup		\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Costs and Expenses before Depreciation, Interest, and Taxes		(\$923)	(\$973)	(\$971)	(\$969)	(\$966)	(\$962)	(\$957)	(\$951)	(\$944)	(\$935)
Income (Loss) Before Depreciation, Interest, and Income Taxes		\$4,026	\$4,169	\$4,263	\$4,359	\$4,458	\$4,559	\$4,661	\$4,767	\$4,874	\$4,984

**Biomass/Cogen Facility
10-Year Cash Flow Analysis - Option 1**

Table 3. Raw Material Assumptions and Costs

	Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	0	1	2	3	4	5	6	7	8	9	10
Raw Material Unit Cost	Furnish %	per ton	per ton	per ton	per ton	per ton	per ton	per ton	per ton	per ton	per ton
Animal Manure	25.0%	(\$30.00)	(\$30.75)	(\$31.52)	(\$32.31)	(\$33.11)	(\$33.94)	(\$34.79)	(\$35.66)	(\$36.55)	(\$37.47)
Animal Residuals	12.5%	(\$35.00)	(\$35.88)	(\$36.77)	(\$37.69)	(\$38.63)	(\$39.60)	(\$40.59)	(\$41.60)	(\$42.64)	(\$43.71)
Food Manufacturing/Processing	25.0%	(\$35.00)	(\$35.88)	(\$36.77)	(\$37.69)	(\$38.63)	(\$39.60)	(\$40.59)	(\$41.60)	(\$42.64)	(\$43.71)
Food Service Residuals	25.0%	(\$45.00)	(\$46.13)	(\$47.28)	(\$48.46)	(\$49.67)	(\$50.91)	(\$52.19)	(\$53.49)	(\$54.83)	(\$56.20)
Pulp and Paper Residuals	12.5%	(\$35.00)	(\$35.88)	(\$36.77)	(\$37.69)	(\$38.63)	(\$39.60)	(\$40.59)	(\$41.60)	(\$42.64)	(\$43.71)
Other Biomass (Specialty)	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total	100.0%	(\$36.25)	(\$37.16)	(\$38.09)	(\$39.04)	(\$40.01)	(\$41.01)	(\$42.04)	(\$43.09)	(\$44.17)	(\$45.27)
Average \$/ton of Current Furnish											
Raw Operating Assumptions											
Number of Operating Days @	165,200 tpd	350	350	350	350	350	350	350	350	350	350
General Feedstock Purchased (tpd)		472	472	472	472	472	472	472	472	472	472
% Specialty Feedstock Purchased (tpd)		0	0	0	0	0	0	0	0	0	0
Material Transportation Cost	\$/ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Cost of Furnish Delivered	\$/ton	(\$36.25)	(\$37.16)	(\$38.09)	(\$39.04)	(\$40.01)	(\$41.01)	(\$42.04)	(\$43.09)	(\$44.17)	(\$45.27)
Annual General Furnish (tons)		165,200	165,200	165,200	165,200	165,200	165,200	165,200	165,200	165,200	165,200
Annual Specialty Furnish (tons)	0.0%	0	0	0	0	0	0	0	0	0	0
Total Annual Furnish (tons)		165,200	165,200	165,200	165,200	165,200	165,200	165,200	165,200	165,200	165,200
Total Non Compost Production (tons)	65.0%	107,380	107,380	107,380	107,380	107,380	107,380	107,380	107,380	107,380	107,380
Total Annual Compost (tons)	35.0%	57,820	57,820	57,820	57,820	57,820	57,820	57,820	57,820	57,820	57,820
Total Furnish Costs - Delivered		(\$5,989)	(\$6,138)	(\$6,292)	(\$6,449)	(\$6,610)	(\$6,775)	(\$6,945)	(\$7,118)	(\$7,296)	(\$7,479)

**Biomass/Cogen Facility
10-Year Cash Flow Analysis - Option 1**

Table 4. Finished Product Assumptions and Sales Price

	Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	0	1	2	3	4	5	6	7	8	9	10
Benchmark Pricing for Energy/Compost											
Biogas Price =	\$3.00	(\$/DTherm)									
Electricity Price =	\$0.05	(cents/kWh)									
Steam Price =	\$4.00	(\$/1000 lb)									
Compost Price	\$50.00	(\$/ton)									
Benchmark Production for Energy/Compost											
Biogas Sales =	725	(million cu ft)									
Electricity Sales =	0	(million kWh)									
Steam Sales =	0	(1000 cu ft)									
Compost Sales =	57,820	(tons)									
Benchmark Percent Mill Recovery for Recyclables											
		Metals = 2%									
		Plastics = 10%									
		Other = 1%									
Energy Market											
Tier #1 Biogas	(000s)	\$1,570	\$1,617	\$1,665	\$1,715	\$1,767	\$1,820	\$1,874	\$1,931	\$1,988	\$2,048
Tier #2 Electricity (Savings)	(000s)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tier #3 Steam (Savings)	(000s)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Energy Revenue	(000s)	\$1,570	\$1,617	\$1,665	\$1,715	\$1,767	\$1,820	\$1,874	\$1,931	\$1,988	\$2,048
Recyclable Market											
Metals Price		\$/per pound									
Plastics Price		\$/per pound									
Other Price		\$/per pound									
Avg. Recyclable Price (\$/lb)		\$/per pound									
Recyclable Total Revenue	(000s)	\$290	\$299	\$308	\$317	\$326	\$336	\$346	\$357	\$367	\$378
Compost Market											
Standard Price	40.0%	\$/per ton									
Economy Price	60.0%	\$/per ton									
Avg. Fiber Price (\$/lb)	100.0%	\$/per ton									
Compost Total Revenue	(000s)	\$1,243	\$1,280	\$1,319	\$1,358	\$1,399	\$1,441	\$1,484	\$1,529	\$1,575	\$1,622
Revenue Summary											
Energy Revenue	(000s)	1,570	1,617	1,665	1,715	1,767	1,820	1,874	1,931	1,988	2,048
Recyclable Revenue	(000s)	290	299	308	317	326	336	346	357	367	378
Compost Revenue	(000s)	1,243	1,280	1,319	1,358	1,399	1,441	1,484	1,529	1,575	1,622
Total Annual Product Revenue	(000s)	\$3,103	\$3,196	\$3,292	\$3,390	\$3,492	\$3,597	\$3,705	\$3,816	\$3,930	\$4,048

**Biomass/Cogen Facility
10-Year Cash Flow Analysis - Option 1**

Table 5. Operating Costs (\$000)

Variable Costs	Year										
	0	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Flocculant		\$330	\$340	\$351	\$361	\$372	\$383	\$395	\$406	\$419	\$431
Caustic		\$14	\$14	\$15	\$15	\$16	\$16	\$17	\$17	\$18	\$18
Compost Handling/Processing		\$165	\$170	\$175	\$181	\$186	\$192	\$197	\$203	\$209	\$216
Acid		\$11	\$11	\$11	\$12	\$12	\$12	\$13	\$13	\$14	\$14
Electricity		\$991	\$1,021	\$1,052	\$1,083	\$1,116	\$1,149	\$1,184	\$1,219	\$1,256	\$1,293
Water Supply		\$12	\$13	\$13	\$14	\$14	\$14	\$15	\$15	\$16	\$16
Steam Production		\$165	\$170	\$175	\$181	\$186	\$192	\$197	\$203	\$209	\$216
Waste Water Treatment		\$169	\$174	\$179	\$184	\$190	\$195	\$201	\$207	\$213	\$220
Technology Fee (% of Tipping Fee)		\$299	\$308	\$318	\$327	\$337	\$347	\$358	\$368	\$379	\$391
Waste Disposal		\$268	\$277	\$285	\$293	\$302	\$311	\$321	\$330	\$340	\$350
Total Additional Variable Cost		\$2,426	\$2,498	\$2,573	\$2,650	\$2,730	\$2,812	\$2,896	\$2,983	\$3,073	\$3,165
Semi-Variable & Fixed Costs											
Personnel - Hourly		\$1,056	\$1,088	\$1,120	\$1,154	\$1,189	\$1,224	\$1,261	\$1,299	\$1,338	\$1,378
Personnel - Salary		\$389	\$401	\$413	\$425	\$438	\$451	\$464	\$478	\$493	\$508
Corporate Management		\$318	\$327	\$337	\$347	\$357	\$368	\$379	\$390	\$402	\$414
Corporate Overhead		\$188	\$193	\$199	\$205	\$211	\$217	\$224	\$231	\$238	\$245
Maintenance Materials/Operating Supplies		\$200	\$206	\$212	\$219	\$225	\$232	\$239	\$246	\$253	\$261
Property Tax		\$314	\$324	\$334	\$344	\$354	\$365	\$376	\$387	\$398	\$410
Fork Truck Lease		\$45	\$46	\$48	\$49	\$51	\$52	\$54	\$55	\$57	\$59
Insurance		\$80	\$82	\$85	\$87	\$90	\$93	\$96	\$98	\$101	\$104
Total Semi-Variable/Fixed Cost Changes		\$2,589	\$2,667	\$2,747	\$2,830	\$2,914	\$3,002	\$3,092	\$3,185	\$3,280	\$3,379
Total Incremental Operating Costs Changes		\$5,015	\$5,165	\$5,320	\$5,480	\$5,644	\$5,814	\$5,988	\$6,168	\$6,353	\$6,543

**Biomass/Cogen Facility
10-Year Cash Flow Analysis - Option 1
Table 6. Incremental Operating Costs Assumptions**

Other Input Variables and Operating Assumptions			
System Type	Raw Material	amunre/biomass	
Tax Rates			
Tax Rate (Table 1):		34%	Federal income taxes
State Tax (Table 2):		0.00%	State Tax
City Tax (Table 2):		0.00%	City tax
Taxes and Insurance			
Property Taxes	amount	rate	annual total
	\$26,206	1.2%	\$314
Insurance	80,000 SF	\$1.00 /SF	\$80,000
			RRS Assumption
Personell - Hourly (4 shifts)			
number/shift	rate	annual total	
6	\$12.00 /hour	\$576,000	RRS Supplied Figure
1	\$15.00 /hour	\$120,000	RRS Supplied Figure
3	\$15.00 /hour	\$360,000	RRS Supplied Figure
	subtotal	\$1,056,000	
Personell - Salary			
FTE	annual salary	annual total	
1.00	\$75,000	\$77,000	RRS Supplied Figure
1.00	\$60,000	\$77,000	RRS Supplied Figure
1.00	\$60,000	\$60,000	RRS Supplied Figure
3.00	\$45,000	\$135,000	RRS Supplied Figure
1.00	\$40,000	\$40,000	RRS Supplied Figure
	subtotal	\$389,000	
Corporate Management			
FTE	annual salary		
0.25	\$125,000	\$31,250	RRS Supplied Figure
0.25	\$90,000	\$22,500	RRS Supplied Figure
0.25	\$75,000	\$18,750	RRS Supplied Figure
0.50	\$75,000	\$37,500	
0.50	\$75,000	\$37,500	
2.00	\$60,000	\$120,000	RRS Supplied Figure
1.00	\$50,000	\$50,000	RRS Supplied Figure
	subtotal	\$317,500	
Corporate Overhead			
FTE	annual total		
0.25	\$250,000	\$62,500	RRS Assumption
0.25	\$500,000	\$125,000	RRS Assumption
	subtotal	\$187,500	
Cost Escalators			
Operating Cost Escalation Rate:		3.0%	Inflation Rate
Recycled Paper Price Inflation Rate:		2.5%	Accounts for Price Volatility

**Biomass/Cogen Facility
10-Year Cash Flow Analysis - Option 1**

Other Input Variables and Operating Assumptions (con)

Operating Parameters

Period of Depreciation	10 years		Straight line depreciation
Fork Truck Maintenance Program	6:00	\$45,000	Linpac/CCI/RRSI Supplied use figures
Electricity Use		200 KWH/ton	Linpac/CCI/RRSI Supplied use figures
Water Consumption		50 Gal/ton	Linpac/CCI/RRSI Supplied use figures
Chemical Cost			
Flocculant		1.0 lb/ton	Linpac/CCI/RRSI Supplied use figures
Acid		0.5 lb/ton	Linpac/CCI/RRSI Supplied use figures
Caustic		0.5 lb/ton	Linpac/CCI/RRSI Supplied use figures
Steam Use		250 lb/ton	Linpac/CCI/RRSI Supplied use figures
Water Effluent		300 Gal/ton	Linpac/CCI/RRSI Supplied use figures

Supply/Disposal Costs

Technology Fee - Percent of Tip Fee		5%	Linpac/CCI/RRSI Supplied use figures
Electricity Cost		\$0.03 /KWH	Linpac/CCI/RRSI Supplied use figures
Chemical Cost			
Flocculant		\$2.00 /lb	Linpac/CCI/RRSI Supplied use figures
Acid		\$0.13 /lb	Linpac/CCI/RRSI Supplied Cost figure
Caustic		\$0.17 /lb	Linpac/CCI/RRSI Supplied Cost figure
Compost Handling/Processing		\$1.00 /ton	RRS Assumption (avg. over all tons)
Steam Cost		\$4.00 /1000 lb	RRS Assumption (based on \$.46/therm & 150F water temp.)
Water Cost		\$1.50/1000gal	Standard Average Cost
Water Disposal		\$3.40/1000gal	Standard Average Cost
Landfill Disposal Tiptees (Shrink/Sludge)		\$25.00 /ton	Linpac/CCI/RRSI Supplied use figures
NonCompost Shrink to Landfill (%)		5%	
Landfill Material Moisture Content (%)		50%	

**CONFIDENTIAL PROJECT
Linpac Biomass/Cogen
Capital Cost Summary**

Option 1 Capital Cost Summary

<u>Project Capital Item</u>	<u>Cost (\$US)</u>
Raw & Finished Materials Handling	\$725,926
BTA Equipment	\$7,988,889
Cogeneration Equipment	\$398,148
Auxiliary Equipment	\$555,556
Building Costs	\$8,003,704
Engineering	\$4,744,444
Startup	\$1,407,407
Optional Equipment	\$0
Project Contingency @ 10%	\$2,382,407
Total Project Capital Costs	\$26,206,481