City of Palo Alto, California
Energy/Compost Feasibility Study

Economic Evaluations &
Tipping Fee Projections
First Operating Year - - 2015

Scenario 3:
Lower Cost Dry Anaerobic Digestion (AD) Technologies
Electricity Production

(Private ownership & financing at market rate; no construction grant; $908,000/year site rent; no CO_2 "carbon adder" costs; no contingency added to export costs)

1. Alternative 1

Case 1a - - Food scraps, yard trimmings and biosolids processed by dry anaerobic digestion (AD) at a facility at the Palo Alto Landfill (PALF) site. Separate AD cells for food scraps/yard trimmings and bisolids All AD gas processed at PALF.

Case 1b - - Food scraps and yard trimmings processed by dry anaerobic digestion, biosolids processed by wet anaerobic digestion; all at a facility at the PALF site. All AD gas processed at PALF.

Case 1c - - Food scraps and yard trimmings processed by dry anaerobic digestion at a facility at the PALF, biosolids processed by wet anaerobic digestion at the Palo Alto wastewater treatment plant (RWQCP). All AD gas processed at PALF.

Case 1d - - Food scraps and yard trimmings processed by dry anaerobic digestion at a facility at the PALF. Food scraps and yard trimmings gas only processed at PALF. Biosolids incinerated at RWQCP, with ash transported to/disposed of at Kettleman Hills Landfill.

2. Alternatives 2 and 2a

Case 2 - - Food scraps taken to and processed at new San Jose AD facility (Zanker). Yard trimmings taken to SMaRT, transferred to and processed at Gilroy composing facility (ZBest). All biosolids incincerated at RWQCP. Existing incinerator replaced by fluidized bed incinerator in 2025. Biosolids incinerator ash transported to and disposed of at Kettleman Hills Landfill.

Case 2a - - Same as Case 2, except biosolids processed via wet AD facility at RWQCP.

3. Alternatives 3 and 3a

Case 3 - - Food scraps taken to San Jose transfer facility, transferred to and processed at Gilroy composting facility (ZBest). Yard trimmings taken to SMaRT, transferred to and processed at Gilroy composting facility (ZBest). All biosolids incinerated at RWQCP. Existing incinerator replaced by fluidized bed incinerator in 2025.Biosolids incinerator ash transported to and disposed of at Kettleman Hills Landfill.

Case 3a - - Same as Case 3, except biosolids processed via wet AD facility at RWQCP.

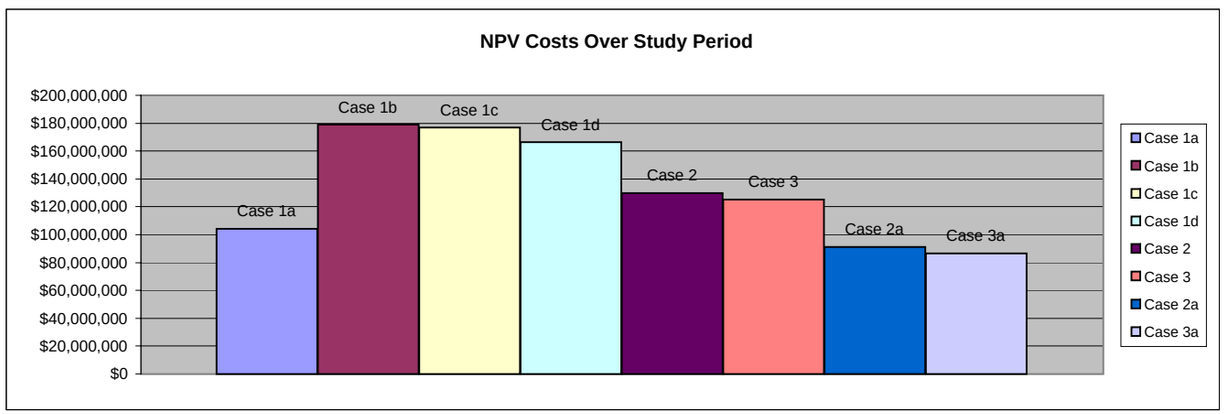
Summary of Projections: Scenario 3 - - Lower Cost Dry AD Options - - Electricity Production - - 2015 First Year of Operation

Alternative 1 Cases AD Facility Project Development & Cost & Revenue Factors	Case 1a Food Scraps, Yard Trimmings & Biosolids Dry AD (In Separate Cells) @ Palo Alto Landfill	Case 1b Food Scraps, Yard Trimmings Dry AD; Biolsolids Wet AD All @ PALF	Case 1c Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Wet AD @ RWQCP	Case 1d Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Incinerated @ RWQCP
AD Project Ownership				
Project Financing & Ownership	Private	Private	Private	Private
AD Facility Capacities (First Year)				
Yard Trimmings (Tons/Year)	21,000	21,000	21,000	21,000
Food Scraps (Tons/Year)	14,000	14,000	14,000	14,000
Biosolids - (Tons/Year @ 26.5% Solids)	27,000	27,000	27,000	27,000
Materials Processed (Tons/Year)	62,000	62,000	62,000	62,000
Materials Processed (Tons/Day@365 Days/Year)	170	170	170	170
AD Facility Capital Costs				
City Planning, Procurement & Project Oversight	$750,000	$750,000	$750,000	$750,000
Permitting, Design & Construction	$39,890,205	$68,671,945	$67,692,629	$26,549,910
Total Debt Incurred	$36,837,501	$62,926,134	$62,038,452	$24,745,457
Grant Amount	$0	$0	$0	$0
Equity Amount	$12,192,062	$20,826,584	$20,532,789	$8,189,973
Total Project Cost	$49,029,563	$83,752,717	$82,571,240	$32,935,430
AD Facility Annual Costs				
Year 1 Debt Service	$3,018,917	$5,156,940	$5,084,193	$2,027,947
Year 1 Operation & Maintenance (Inc. Equity IRR)	$6,699,056	$10,403,243	$10,317,996	$5,435,473
Total Year 1 Costs	$9,717,973	$15,560,183	$15,402,189	$7,463,419
AD Facility Annual Revenues				
Year 1 Revenues (Energy, Materials)	$1,800,591	$2,064,555	$2,064,555	$1,237,148
Year 1 Other Revenues	$60,378	$103,139	$101,684	$40,559
Year 1 Tipping Fee Revenue Required	$7,857,005	$13,392,489	$13,235,950	$6,185,712
Incinerator Costs				
Year 1 Debt Service	$0	$0	$0	$0
Year 1 Operations & Maintenance	$0	$0	$0	$2,431,313
Total Year 1 Costs	$0	$0	$0	$2,431,313
Year 1 Project Costs ($/Ton)	$127	$216	$213	$139
Year 20 Project Costs ($/Ton)	$87	$152	$151	$480
NPV Project Costs Over Study Period	$104,011,039	$178,962,405	$177,003,435	$166,384,314

Summary of Projections: Scenario 3 - - Lower Cost Dry AD Options - - Electricity Production - - 2015 First Year of Operatior

Alternative 2 (Food Scraps to San Jose Facility; Yard Trimmings to Gilroy Facility; Biosolids Incinerated @ RWQCP)	
Total Year 1 Cost	**$5,163,497**
Year 1 Cost ($/Ton)	**$83**
Year 20 Cost ($/Ton)	**$478**
NPV Total Costs Over Study Period	**$129,844,849**
Alternative 3 (Food Scraps, Yard Trimmings to Gilroy Facility; Biosolids Incinerated @ RWQCP)	
Total Year 1 Cost	**$4,908,945**
Year 1 Cost($/Ton)	**$79**
Year 20 Cost ($/Ton)	**$470**
NPV Total Costs Over Study Period	**$125,297,128**

Alternative 2a (Food Scraps to San Jose Facility; Yard Trimmings to Gilroy Facility; Biosolids Processed Wet AD @ RWQCP	
Total Year 1 Cost	**$6,212,890**
Year 1 Cost ($/Ton)	**$100**
Year 20 Cost ($/Ton)	**$123**
NPV Total Costs Over Study Period	**$90,994,466**
Alternative 3a (Food Scraps, Yard Trimmings to Gilroy Facility; Biosolids Processed Wet AD @ RWQCP	
Total Year 1 Cost	**$5,958,367**
Year 1 Cost ($/Ton)	**$96**
Year 20 Cost ($/Ton)	**$116**
NPV Total Costs Over Study Period	**$86,757,320**



1. Alternative 1

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Case 1d - - Food scraps and yard trimmings processed by dry anaerobic digestion at a facility at the PALF. Food scraps and yard trimmings gas only processed at PALF. Biosolids incinerated at RWQCP, with ash transported to/disposed of at Kettleman Hills Landfill.

2. Alternatives 2 and 2a

Case 2 - - Food scraps taken to and processed at new San Jose AD facility (Zanker). Yard trimmings taken to SMaRT, transferred to and processed at Gilroy composing facility (ZBest). All biosolids incincerated at RWQCP. Existing incinerator replaced by fluidized bed incinerator in 2025. Biosolids incinerator ash transported to and disposed of at Kettleman Hills Landfill.
Case 2a - - Same as Case 2, except biosolids processed via wet AD facility at RWQCP.

3. Alternatives 3 and 3a

Case 3 - - Food scraps taken to San Jose transfer facility, transferred to and processed at Gilroy composting facility (ZBest). Yard trimmings taken to SMaRT, transferred to and processed at Gilroy composting facility (ZBest). All biosolids incinerated at RWQCP. Existing incinerator replaced by fluidized bed incinerator in 2025.Biosolids incinerator ash transported to and disposed of at Kettleman Hills Landfill.
Case 3a - - Same as Case 3, except biosolids processed via wet AD facility at RWQCP.

4. Model Instructions

The Summary page presents the principal conclusions of the analyses. All inputs and assumptions are to be made ONLY on the Inputs page. The proforma pages present 20-year proformas for each of the Cases.

Except where expressly noted, all cost and revenue inputs are in 2010 dollars.

The model allows individual users to perform economic evaluations and tipping fee projections based upon inputs and assumptions other than those applied in the study.

Data is to be inputted ONLY in the rows and cells indicated i**BOLD BLUE** typeface. All other cells are calculations tha should not be changed. Inputs should be made only on the Inputs page.

The model supports the comparative analysis of public vs. private project financing and ownership. The key to private ownership is the impact of the return on private equity (IRR) invested in the project. For modeling purposes, a 25% pre-tax IRR target is assumed.

The proforma pages include calculations only, based on assumptions made on the Inputs page.
No inputs are provided for on the proforma pages.

The model assumes revenue-based (i.e. not general obligation-based) financing in all Cases.

Inputs and Assumptions
Scenario 3:
Lower Cost Dry AD Options - - Electricity Production

May 31, 2011

	Enter Inputs in BLUE Cells Only	Case 1a Food Scraps, Yard Trimmings & Biosolids Dry AD (In Separate Cells) @ Palo Alto Landfill	Case 1b Food Scraps, Yard Trimmings Dry AD; Biolsolids Wet AD All @ PALF	Case 1c Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Wet AD @ RWQCF	Case 1d Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Incinerated @ RWQCF
	General Information				
1	**Facility Throughput**				
2	**Yard Trimmings (Tons/Year) (2015)**	**21,000**	21,000	21,000	21,000
3	**Yard Trimmings (Tons/Year) (2035)**	**21,000**	21,000	21,000	21,000
4	Yard Trimmings Annual Increase	0.00%	0.00%	0.00%	0.00%
5	**Food Scraps (Tons/Year) (2015)**	**14,000**	14,000	14,000	14,000
6	**Food Scraps (Tons/Year) (2035)**	**19,000**	19,000	19,000	19,000
7	Food Scraps Annual Increase	1.79%	1.79%	1.79%	1.79%
8	**Biosolids (Tons/Year) (2015)**	**27,000**	27,000	27,000	27,000
9	**Biosolids (Tons/Year) (2035)**	**34,000**	34,000	34,000	34,000
10	Biosolids Annual Increase	1.30%	1.30%	1.30%	1.30%
11	Facility Throughput (Tons/Year) (2015)	62,000	62,000	62,000	62,000
12	Facility Throughput (Average Tons/Day 365 Days/Year)	170	170	170	170
13	Discount Rate for NPV Analysis (Public Tax-Exempt Cost of Capital)	5.00%	5.00%	5.00%	5.00%
14	**Inflation Rate / Construction (ENR Index)**	**3.90%**	3.90%	3.90%	3.90%
15	**Inflation Rate / General Cost and Revenue Escalation (CPI**	**2.40%**	2.40%	2.40%	2.40%
16	Year That Input Costs Are Determined (Unless Otherwise Noted)	2010	2010	2010	2010
17	Start of Construction	2013	2013	2013	2013
18	Operations Starting Year/Start of Study Period ("Year 1")	2015	2015	2015	2015
19	Study Period Final Year	2034	2034	2034	2034
20	Study Period for Projections (Years)	20	20	20	20
21	**Project Financing & Ownership (Private, Public)**	**Private**	Private	Private	Private
	Residuals Disposal & Materials Recovered or Produced				
22	Total Tonnage Processed (Year 1)	62,000	62,000	62,000	62,000
23	**Residuals for Disposal (% of Throughput) - - Yard & Food**	**4.54%**	4.54%	4.54%	4.54%
24	Residuals for Disposal (tonsyear)	1,589	1,589	1,589	1,589
25	**Residuals for Disposal (% of Throughput) - - Biosolids**	**0.00%**	**0.00%**	0.00%	**0.00%**
26	Residuals for Disposal (tonsyear)	0	0	0	0
27	**Ferrous Recovered (% of Throughput)**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
28	Ferrous Recovered (tons/year)	0	0	0	0
29	**Aluminum Recovered (% of Throughput)**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
30	Aluminum Recovered (tons/year)	0	0	0	0
31	**Glass Recovered (% of Throughput)**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
32	Glass Recovered (tons/year)	0	0	0	0
33	**Plastics Recovered (% of Throughput)**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
34	Plastics Recovered (tons/year)	0	0	0	0
35	**Compost Produced (% of Throughput) - - Yard & Food**	**29.98%**	29.98%	29.98%	29.98%
36	Compost Produced (tons/year)	10,493	10,493	10,493	10,493
37	**Compost Produced (% of Throughput) - - Biosolids**	**33.00%**	**0.00%**	**0.00%**	**0.00%**
38	Compost Produced (tons/year	8,910	0	0	0

Inputs and Assumptions
Scenario 3:
Lower Cost Dry AD Options - - Electricity Production

	Enter Inputs in BLUE Cells Only	Case 1a Food Scraps, Yard Trimmings & Biosolids Dry AD (In Separate Cells) @ Palo Alto Landfill	Case 1b Food Scraps, Yard Trimmings Dry AD; Biolsolids Wet AD All @ PALF	Case 1c Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Wet AD @ RWQCF	Case 1d Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Incinerated @ RWQCF
	Capital Costs				
39	Dry AD Facility (2010) (1)				
40	**Permitting, Legal, Admin., Engr.**	**1,300,000**	**1,300,000**	1,300,000	**1,300,000**
41	**Structures**	**4,760,000**	**4,760,000**	4,760,000	**4,760,000**
42	**Equipment**	**13,540,000**	**8,540,000**	8,540,000	**7,240,000**
43	**Environmental Control Systems**	**580,000**	**580,000**	580,000	**580,000**
44	**Utilities**	**150,000**	**150,000**	150,000	**150,000**
45	**Ancillary Systems**	**670,000**	**670,000**	670,000	**670,000**
46	**Site Preparation (Above Ground)**	**2,210,000**	2,210,000	2,210,000	2,210,000
47	**Site Preparation (Excavation, Pilings, Caps)**	**2,544,739**	**2,222,739**	**2,211,989**	**2,211,989**
48	**Additional Up-Front Landfill Closure**	**400,000**	400,000	400,000	400,000
49	**Off-Site Environmental Mitigation**	**0**	**0**	**0**	**0**
50	**Other**	**1,790,000**	**1,440,000**	1,440,000	**1,350,000**
51	**Contingency (On All Capital Cost Items Except 47**	**30%**	**15%**	**15%**	**15%**
52	Total Development/Construction Costs (2010)	35,564,739	25,280,239	25,269,489	23,670,989
53	**Total Development/Construction Costs (Construction Year**	**39,890,205**	**28,354,880**	**28,342,823**	**26,549,910**
54	Wet AD Facility & Delivery System (2010)				
55	**Direct Costs for Construction**	**0**	**21,589,500**	21,589,500	**0**
56	**Ancillary System (Biosolids Piping to AD Facility**	**0**	**283,000**	**0**	**0**
57	**Site Preparation (Excavation, Pilings, Caps)**	**0**	**322,000**	**0**	**0**
58	**Contingency (30% of Items 55, 56)**	**0**	**6,561,750**	**6,476,850**	**0**
59	**Permitting, Legal, Engr (15% of Items 55-58)**	**0**	4,313,438	4,209,953	**0**
60	**Construction Mgt (10% of Items 55-58**	**0**	2,875,625	2,806,635	**0**
61	Total Development/Construction Costs (2010)	0	35,945,313	35,082,938	0
62	**Total Development/Construction Costs (Construction Year**	**0**	**40,317,065**	**39,349,806**	**0**
	Total AD Project Costs				
63	Total Project Construction Costs (Construction Year)	39,890,205	68,671,945	67,692,629	26,549,910
64	City Implementation Costs (Planning, Procurement, Oversight)	**750,000**	**750,000**	**750,000**	**750,000**
65	**Total Project Planning, Development and Construction Cos**	**40,640,205**	**69,421,945**	**68,442,629**	**27,299,910**
66	Multiple Hearth Incinerator Upgrade/Improvements (if Any)				
67	**Capital Costs (2010)**	**0**	0	0	**0**
68	Capital Costs (2015)	0	0	0	0
69	**Capital Costs ($/Ton) (2010)**	0	0	0	**0**
70	Capital Costs ($/Ton) (2015)	**0**	0	0	0
71	Annual Incinerator Throughput (TPY) (2015)	0	0	0	27,000
72	Annual Capital-Related Incinerator Costs (2015	0	0	0	0

(1) Although the cost for Option 1a was affirmed by the Respondent, uncertainty remains regarding the reliability of costs for this Option.

Inputs and Assumptions
Scenario 3:
Lower Cost Dry AD Options - - Electricity Production

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	Financing				
73	AD Project Grants and/or Equity				
74	**Grant Percent (% of Total Cost, Item 65)**	**0%**	0%	0%	0%
75	Grant Value	0	0	0	0
76	AD Project Cost (Total Cost Less Grant)	40,640,205	69,421,945	68,442,629	27,299,910
77	**Equity Percent**	**30%**	30%	30%	30%
78	Equity Value Based on AD Project Cost Less Grant	12,192,062	20,826,584	20,532,789	8,189,973
79	Equity Pre-Tax IRR	25%	25%	25%	25%
80	Return of Equity Multiple (If Below "5," Increase IRR,Item 85)	5.00	5.00	5.00	5.00
81	AD Project Debt Build-Up				
82	Debt Required for Construction (Facility Cost Less Grant and/or Equity)	28,448,144	48,595,362	47,909,840	19,109,937
83	Financing Soft Costs & Reserve Fund Factor	15%	15%	15%	15%
84	Financing Soft Costs & Reserve Fund ($)	4,267,222	7,289,304	7,186,476	2,866,491
85	Subtotal: Total Debt Required Before Capitalized Interest	32,715,365	55,884,666	55,096,316	21,976,427
86	Capitalized Interest	4,122,136	7,041,468	6,942,136	2,769,030
87	Total Debt Required	36,837,501	62,926,134	62,038,452	24,745,457
88	Total AD Project Value (Debt + Grant + Equity)	49,029,563	83,752,717	82,571,240	32,935,430
89	Debt Amortization Term (Years)	20	20	20	20
90	**Debt Interest Rate**	**5.25%**	**5.25%**	**5.25%**	**5.25%**
91	Debt Interest Rate Applied	5.25%	5.25%	5.25%	5.25%
92	**Total Value (AD + Incinerator Upgrade/Improvements)**	**49,029,563**	**83,752,717**	**82,571,240**	**32,935,430**

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	Operation and Maintenance Costs - - AD Facility				
93	Dry AD Facility Annual O&M (2010)				
94	**Labor**	**221,875**	221,875	221,875	221,875
95	**Utilities**				
96	**Purchased Power (kWh/Year)**	**0**	**0**	**0**	**0**
97	**Purchased Power Cost ($/kWh)**	**0.0000**	0.0000	0.0000	0.0000
98	**Annual Purchased Power Cost**	**29,594**	29,594	29,594	29,594
99	**Purchased Gas (MMBtu/Year)**	**0**	**0**	**0**	**0**
100	**Purchased Gas Cost ($/MMBtu)**	**0**	0	0	0
101	Annual Purchased Gas Cost	0	0	0	0
102	**Water (MGY)**	**0**	**0**	**0**	**0**
103	**Water Cost ($/MGY)**	**0**	0	0	0
104	Annual Purchased Water Cost	0	0	0	0
105	**Sewer Service (MGY)**	**0**	**0**	**0**	**0**
106	**Sewer Service Cost ($/MGY)**	**0**	0	0	0
107	Annual Sewer Service Cost	0	0	0	0
108	**Chemicals**	0	**0**	**0**	**0**
109	**Maintenance & Repair**	**346,438**	**372,346**	372,346	**291,137**
110	**Capital Repair & Replacement**	**296,096**	**296,096**	296,096	**296,096**
111	**On-Going Off-Site Mitigation**	**0**	**0**	0	**0**
112	**Other (Equip. Leasing, Compost Treatment, Mgt. Fee, Admin., Ins.)**	**772,962**	**745,462**	745,462	**566,237**
113	**Contingency (On Items 94 -112)**	**15%**	**10%**	10%	10%
114	Total Dry AD Facility Plant O&M (2010)	1,917,010	1,831,910	1,831,910	1,545,433
115	**Total Dry AD Facility Plant O&M (Escalated to Year 1**	**2,158,361**	**2,062,548**	**2,062,548**	**1,740,003**
	Uncertainty remains regarding the reliability of costs for Option 1a.				
116	Wet AD Facility Annual O&M (2010)				
117	**Labor**	**0**	**136,493**	136,493	**0**
118	**Utilities**				
119	**Purchased Power (kWh/Year)**	**0**	**0**	**0**	**0**
120	**Purchased Power Cost ($/kWh)**	**0.0000**	0.0000	0.0000	0.0000
121	**Annual Purchased Power Cost**	**0**	**243,642**	243,642	**0**
122	**Purchased Gas (MMBtu/Year)**	**0**	**0**	**0**	**0**
123	**Purchased Gas Cost ($/MMBtu)**	**0**	0	0	0
124	Annual Purchased Gas Cost	0	0	0	0
125	**Water (MGY)**	**0**	**0**	**0**	**0**
126	**Water Cost ($/MGY)**	**0**	0	0	0
127	Annual Purchased Water Cost	0	0	0	0
128	**Sewer Service (MGY)**	**0**	**0**	**0**	**0**
129	**Sewer Service Cost ($/MGY)**	**0**	0	0	0
130	Annual Sewer Service Cost	0	0	0	0
131	**Chemicals**	**0**	**0**	**0**	**0**
132	**Maintenance & Repair**	**0**	**0**	**0**	**0**
133	**Capital Repair & Replacement**	**0**	**0**	**0**	**0**
134	**Contingency (On Items 117,121)**	**10%**	10%	10%	10%
135	Total Wet AD Annual Facility O&M (2010)	0	418,148	418,148	0
136	**Total Wet AD Facility Plant (O&M) (Escalated to Year 1**	**0**	**470,793**	**470,793**	**0**

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	Operation & Maintenance Costs - - Othe				
137	Other O&M Costs				
138	**Digestate Hauling (Including 10% O&M Contingency**	**0**	**493,636**	493,636	**0**
139	**Digestate Disposal (Including 10% O&M Contingency**	**0**	**616,712**	616,712	**0**
140	**Annual Site Rent (2010)**	**908,000**	908,000	908,000	908,000
141	**Additional Annual Landfill Closure Costs (2010**	**0**	**0**	**0**	**0**
142	Additional Annual Landfill Closure Costs (2015)	0	0	0	0
143	RWQCP Sludge Delivery to PALF Site				
144	**Solid Cake Delivery to PALF Site (Ton/Year) (2010**	**0**	**0**	**0**	**0**
145	**Solid Cake Delivery Cost ($/Ton) (2010)**	**0**	0	0	0
146	**Annual Cake Delivery Cost (2010)**	**53,000**	0	0	0
147	Annual Cake Delivey Cost (2015)	59,673	0	0	0
148	**Liquid Delivery to PALF Site (MGY) (2010**	**0**	**0**	**0**	**0**
149	**Liquid Delivery Cost ($/MG) (2010)**	**0**	0	0	0
150	Annual Liquid Delivery Cost (2010)	**0**	**9,770**	0	0
151	Annual Liquid Delivery Cost (2015)	0	11,000	0	0
152	Residue Disposal				
153	Kirby Canyon Tipping Fee ($/ton) (2015)	41.37	41.37	41.37	41.37
154	Kirby Canyon Tipping Fee ($/ton) (Escalated to Year 1)	41.37	41.37	41.37	41.37
155	Kirby Canyon Tipping Fee Annual Escalation	3.00%	3.00%	3.00%	3.00%
156	Kriby Canyon Landfill Tax (2015)	20.57	20.57	20.57	20.57
157	Residue Transportation ($/ton) (2010)	10.00	10.00	10.00	10.00
158	Residue Transportation ($/ton) (Escalated to Year 1)	11.26	11.26	11.26	11.26
159	Multiple Hearth Incinerator Operation & Maintenance				
160	**Operation & Maintenance ($/Ton) (2010)**	0	0	0	**80**
161	Operation & Maintenance ($/Ton) (2015)	0	0	0	90
162	Annual Incinerator Throughput (TPY) (2015)	0	0	0	27,000
163	Annual Incinerator Operation & Maintenance Cost (2015)	0	0	0	2,431,313
164	CO_2 Adder				
165	**CO_2 Adder Cost/Ton (2007)**	**20**	20	20	20
166	**CO2 Adder Cost/Ton Annual Increase**	**5.00%**	5.00%	5.00%	5.00%
167	CO2 Adder Cost/Ton (Year 1)	**30**	30	30	30
168	**Net CO_2-e Emissions (Tons/Year)**	**13,831**	**14,234**	**14,207**	**21,106**

Inputs and Assumptions
Scenario 3:
Lower Cost Dry AD Options - - Electricity Production

	Enter Inputs in BLUE Cells Only	Case 1a Food Scraps, Yard Trimmings & Biosolids Dry AD (In Separate Cells) @ Palo Alto Landfill	Case 1b Food Scraps, Yard Trimmings Dry AD; Biolsolids Wet AD All @ PALF	Case 1c Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Wet AD @ RWQCF	Case 1d Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Incinerated @ RWQCF
	Energy Products Prices (2)				
169	**Power Sales Basis (Gross Sold = 1, Net Sold = 2)**	**1**	**1**	**1**	**1**
170	Gross Power Output (kWh/ton) - - Dry AD	164	193	193	177
171	**Annual Gross Power Output (kWh/year) - - Dry AD**	**10,138,590**	**11,989,155**	**11,989,155**	**6,188,490**
172	Net Power Output (kWh/ton) - - Dry AD	**0**	**0**	**0**	**0**
173	**Annual Net Power Output (kWh/Year) for Sale - - Dry AD**	0	0	0	0
174	**Gross Power Output (kWh/ton) - - Wet AD**	0	0	0	0
175	Annual Gross Power Output (kWh/ton) - - Wet AD	0	0	0	0
176	**Net Power Output (kWh/ton) - - Wet AD**	0	0	0	0
177	Annual Net Power Output (kWh/Year) for Sale - - Wet AD	0	0	0	0
178	**Total Power Sold Annually**	**10,138,590**	**11,989,155**	**11,989,155**	**6,188,490**
179	**Enegy Power Price ($/kWh) (2015)**	**0.1426**	0.1426	0.1426	0.1426
180	Energy Power Price ($/kWh) Applied to Proformas - - Levelized	0.1426	0.1426	0.1426	0.1426
181	**Capacity Power Price (2015) ($/kW-year)**	**0.00**	0.00	0.00	0.00
182	**Gas Sales Basis (Gross Sold = 1, Net Sold =2)**	**0**	**0**	**0**	**0**
183	**Gross AD Gas Output (MMBtu/ton) - - Food, Yard**	**0**	**0**	**0**	**0**
184	Annual Gross AD Gas Output (MMbtu) - - Food, Yard	0	0	0	0
185	**Gas Price ($/MMbtu)**	**0**	**0**	0	0
186	Annual Gross AD Gas Revenue - - Food, Yard	0	0	0	0
187	**Gross AD Gas Output (MMBtu/ton) - - Biosolids**	**0**	**0**	**0**	**0**
188	Annual Gross AD Gas Output (MMbtu) - - Biosolids	0	0	0	0
189	**Gas Price ($/MMbtu)**	**0**	0	0	0
190	Annual Gross AD Gas Revenue - - Biosolids	0	0	0	0
191	**Net AD Gas Output (MMBtu/Ton) - - Food, Yard**	**0**	**0**	**0**	**0**
192	Annual Net AD Gas Output (MMbtu) - - Food, Yard	0	0	0	0
193	Gas Price ($/MMbtu)	0	0	0	0
194	Annual Net AD Gas Revenue - - Food, Yard	0	0	0	0
195	**Net AD Gas Output (MMBtu/Ton) - - Biosolids**	**0**	**0**	**0**	**0**
196	Annual Net Gas Output (MMBtu/Ton) - - Biosolids	0	0	0	0
197	Gas Price ($/MMbtu)	0	0	0	0
198	Annual Net AD Gas Revenue - - Biosolids	0	0	0	0
199	Annual AD Gas Revenue - - Food, Yard	0	0	0	0
200	Annual AD Gas Revenue - - Biosolids	0	0	0	0

(2) In this analysis and for this technology configuration, biogas from Wet AD is combined with biogas from Dry AD for power production. Thus, there are no separate calculations for Wet AD power generation.

Inputs and Assumptions
Scenario 3:
Lower Cost Dry AD Options - - Electricity Production

	Enter Inputs in BLUE Cells Only	Case 1a Food Scraps, Yard Trimmings & Biosolids Dry AD (In Separate Cells) @ Palo Alto Landfill	Case 1b Food Scraps, Yard Trimmings Dry AD; BioIsolids Wet AD All @ PALF	Case 1c Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Wet AD @ RWQCF	Case 1d Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Incinerated @ RWQCF
	Materials Products Prices				
201	**Ferrous Price ($/ton) (2010)**	**0.00**	**0.00**	**0.00**	**0.00**
202	Ferrous Price ($/ton) (Escalated to Year 1)	0.00	0.00	0.00	0.00
203	**Aluminum Price ($/ton) (2010)**	**0.00**	**0.00**	**0.00**	**0.00**
204	Aluminum Price ($/ton) (Escalated to Year 1)	0.00	0.00	0.00	0.00
205	**Glass Price ($/ton) (2010)**	**0.00**	**0.00**	**0.00**	**0.00**
206	Glass Price ($/ton)(Escalated to Year 1)	0.00	0.00	0.00	0.00
207	**Plastics Price ($/ton) (2010)**	**0.00**	**0.00**	**0.00**	**0.00**
208	Plastics Price ($/ton) (Escalated to Year 1)	0.00	0.00	0.00	0.00
209	**Compost Price ($/ton) (2010) - - Yard & Food**	**30.00**	**30.00**	**30.00**	**30.00**
210	Compost Price ($/ton) (Escalated to Year 1)	33.78	33.78	33.78	33.78
211	**Compost Price ($/ton) (2010) - - Biosolids**	**0.00**	**0.00**	**0.00**	**0.00**
212	Compost Price ($/ton) (Escalated to Year 1	0.00	0.00	0.00	0.00
	Other Revenues				
213	**Debt Service Reserve Fund Interest Rate**	**2.00%**	2.00%	2.00%	2.00%
214	Debt Service Reserve Fund Interest Income (3	60,378	103,139	101,684	40,559

(3) Debt service reserve fund interest income is treated as annual revenue to the project (see individual proforma analyses) and, as a revenue item, is applied against costs. In Year 20, the debt service reserve fund is used to pay debt service.

Inputs and Assumptions
Scenario 3:
Lower Cost Dry AD Options - - Electricity Production

	Enter Inputs in BLUE Cells Only	Case 1a Food Scraps, Yard Trimmings & Biosolids Dry AD (In Separate Cells) @ Palo Alto Landfill	Case 1b Food Scraps, Yard Trimmings Dry AD; BioIsolids Wet AD All @ PALF	Case 1c Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Wet AD @ RWQCF	Case 1d Food Scraps, Yard Trimmings Dry AD @ PALF Biosolids Incinerated @ RWQCF
	Alternatives 2, 2a, 3 and 3a Inputs		**Transportation & Disposal Alternatives 2 and 3 & Alternatives 2a and 3a**		
215	Alternative 2 (San Jose & Gilroy Facilities)				
216	**Food Scraps Transportation to San Jose AD Facility ($/ton) (2010**		**2.60**		
217	**Food Scraps Processing at San Jose AD Facility ($/ton) (2010**		**85.00**		
218	**Yard Trimmings Transportation to SMaRT ($/ton) (2010)**		**2.00**		
219	**Yard Trimmings Transport to and Processing at Gilroy Composting Facility ($/ton) (2010**		**26.00**		
220	Biosolids Incineration				
221	**Labor**		**200,731**		
222	**O&M (Utilities, Polymer, Ash Disposal, Etc.**		**1,958,709**	Biosolids Cost ($/Ton):	
223	Biosolids Incineration/Multiple Hearth Incinerator (Total Annual Costs) (201(		**2,159,440**	80	
224	**Net CO_2-e Emissions (Tons/Year)**		**23,329**		
225	Alternative 3 (Gilroy Facility)				
226	**Food Scraps Transportation to San Jose Transfer Facility ($/ton) (2010**		**2.60**		
227	**Food Scraps Transport to and Processing at Gilroy Composting Facility ($/ton) (2010**		**70.00**		
228	**Yard Trimmings Transportation to SMaRT ($/ton) (2010)**		**2.00**		
229	**Yard Trimmings Transport to and Processing at Gilroy Composting Facility ($/ton) (2010**		**26.00**	Biosolids Cost ($/Ton):	
230	Biosolids Incineration/Multiple Hearth Incinerator (Total Annual Costs) (201(		2,159,440	80	
231	**Net CO_2-e Emissions (Tons/Year)**		**22,716**		
232	Fluidized Bed Incineration (FBI) Costs (Alternatives 2 & 3)				
233	**Construction Cost (2011) (Inlcuding 30% Contingency**		**152,166,300**		
234	Construction Cost (2030)		314,784,895	Biosolids Cost ($/Ton)	
235	Annual Debt Service		25,259,154	1101	
236	**FBI Operations and Maintenance Cost (2010) (Including 10% Contingency**		**2,713,700**		
237	FBI Operations and Maintenance Cost (2031)		4,465,406		
238	Alternatives 2a and 3a (Alternatives 2 & 3 with Wet AD at RWQCP, no Incineration)				
239	Construction Cost (Construction Year		39,349,806		
240	Annual Debt Service		3,224,806	Biosolids Cost ($/Ton)	
241	Wet AD Operation & Maintenance (2011)		418,148	135	
242	Total Cost		3,642,954		
243	**Net CO_2-e Emissions (Tons/Year) - - Alternative 2a**		**16,430**		
244	**Net CO_2-e Emissions (Tons/Year) - - Alternative 3a**		**15,818**		

Case 1a
Proforma Analysis

Study Period Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Calendar Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Proforma																				
Throughput and Residuals (Tons/Year)																				
Yard Trimmings	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
Food Scraps	14,000	14,250	14,504	14,763	15,027	15,295	15,569	15,847	16,130	16,418	16,711	17,009	17,313	17,622	17,937	18,257	18,583	18,915	19,253	19,596
Yard Timmings & Food Scraps - - Annual Increase	0	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%
Biosolids	27,000	27,350	27,705	28,064	28,427	28,796	29,169	29,547	29,930	30,318	30,711	31,109	31,513	31,921	32,335	32,754	33,179	33,609	34,045	34,486
Biosolids - - Annual Increase	0	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%	1.30%
Total Tons to Facility Per Year	62,000	62,600	63,209	63,827	64,455	65,091	65,738	66,394	67,060	67,736	68,422	69,119	69,826	70,543	71,272	72,011	72,762	73,524	74,297	75,082
Food Scraps & Yard Trimmings Residuals	1,589	1,600	1,612	1,624	1,636	1,648	1,660	1,673	1,686	1,699	1,712	1,726	1,739	1,753	1,768	1,782	1,797	1,812	1,827	1,843
Biosolids Residuals (For Cost Projections)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Residuals for Disposal	1,589	1,600	1,612	1,624	1,636	1,648	1,660	1,673	1,686	1,699	1,712	1,726	1,739	1,753	1,768	1,782	1,797	1,812	1,827	1,843
Incinerator Throughput	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AD Costs																				
AD Debt Service																				
Total Annual Debt Service	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	0
AD Operating Costs																				
Dry AD O&M	2,158,361	2,210,162	2,263,206	2,317,523	2,373,143	2,430,099	2,488,421	2,548,143	2,609,298	2,671,922	2,736,048	2,801,713	2,868,954	2,937,809	3,008,316	3,080,516	3,154,448	3,230,155	3,307,679	3,387,063
Wet AD O&M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual Site Rent	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000
Additional Annual Landfill Closure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residuals Disposal																				
Kirby Canyon Tipping Fee	41	43	44	45	47	48	49	51	52	54	56	57	59	61	63	64	66	68	70	73
Kirby Canyon Tipping Cost	65,737	68,193	70,745	73,399	76,159	79,028	82,011	85,114	88,340	91,696	95,187	98,819	102,597	106,527	110,617	114,873	119,302	123,911	128,708	133,702
Kirby Canyon Landfill Tax	32,686	32,919	33,157	33,399	33,645	33,896	34,151	34,410	34,674	34,943	35,217	35,496	35,780	36,068	36,362	36,661	36,966	37,276	37,591	37,912
Transportation to Kirby Canyon ($/ton)	11	12	12	12	12	13	13	13	14	14	14	15	15	15	16	16	16	17	17	18
Transportation to Kirby Canyon ($/year)	17,891	18,451	19,030	19,629	20,248	20,889	21,551	22,236	22,944	23,677	24,435	25,220	26,032	26,871	27,741	28,640	29,571	30,534	31,532	32,564
Biosolids Delivery to PALF Site (Solid Cake)	59,673	61,105	62,571	64,073	65,611	67,185	68,798	70,449	72,140	73,871	75,644	77,460	79,319	81,222	83,172	85,168	87,212	89,305	91,448	93,643
Biosolids Delivery to PALF Site (Liquid)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre-Tax IRR Cash Flow Required	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015	3,048,015
CO_2 Adder	408,694	429,128	450,585	473,114	496,770	521,608	547,689	575,073	603,827	634,018	665,719	699,005	733,955	770,653	809,186	849,645	892,127	936,734	983,570	1,032,749
Total Operating Costs	6,699,056	6,775,973	6,855,310	6,937,152	7,021,591	7,108,719	7,198,635	7,291,440	7,387,240	7,486,143	7,588,266	7,693,727	7,802,651	7,915,166	8,031,409	8,151,518	8,275,641	8,403,930	8,536,544	8,673,648
Total AD Project Costs	9,717,921	9,794,836	9,874,171	9,956,012	10,040,449	10,127,576	10,217,490	10,310,293	10,406,091	10,504,993	10,607,114	10,712,573	10,821,494	10,934,008	11,050,248	11,170,355	11,294,475	11,422,762	11,555,373	8,673,558
AD Revenues																				
Energy Sale (Gross Production = 1, Net Production = 2)	1																			
Annual Power Output (kWh/Year) for Sale	10,138,590	10,236,705	10,336,293	10,437,375	10,539,974	10,644,115	10,749,820	10,857,114	10,966,022	11,076,567	11,188,776	11,302,675	11,418,289	11,535,644	11,654,768	11,775,688	11,898,432	12,023,029	12,149,505	12,277,892
Power Revenue (Energy)	1,446,168	1,460,164	1,474,369	1,488,787	1,503,422	1,518,277	1,533,354	1,548,659	1,564,193	1,579,962	1,595,967	1,612,214	1,628,705	1,645,444	1,662,436	1,679,684	1,697,192	1,714,965	1,733,005	1,751,319
Power Revenue (Capacity) - - Dry AD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power Revenue (Capacity) - - Wet AD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power Revenue (Landfill)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas Revenue (Food Scraps & Yard Trimmings)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas Revenue (Biosolids)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ferrous Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Glass Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plastics Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Compost Revenue - - Food Scraps & Yard Trimmings	354,422	365,521	368,159	370,845	373,579	376,361	379,193	382,076	385,010	387,997	391,037	394,131	397,281	400,487	403,750	407,071	410,452	413,893	417,395	420,960
Compost Revenue - - Biosolids	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Revenues																				
Debt Service Reserve Fund Interest	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	60,378	0
Total AD Annual Revenues	1,860,969	1,886,063	1,902,906	1,920,010	1,937,379	1,955,016	1,972,926	1,991,113	2,009,582	2,028,337	2,047,383	2,066,723	2,086,364	2,106,309	2,126,564	2,147,134	2,168,022	2,189,236	2,210,779	2,172,279
Net AD Annual Costs	(7,857,005)	(7,908,828)	(7,971,321)	(8,036,059)	(8,103,129)	(8,172,621)	(8,244,627)	(8,319,244)	(8,396,575)	(8,476,724)	(8,559,801)	(8,645,921)	(8,735,204)	(8,827,774)	(8,923,762)	(9,023,302)	(9,126,536)	(9,233,611)	(9,344,682)	(6,501,370)
NPV Net Annual Cost	*(104,011,039)*																			

Case 1a
Proforma Analysis

Study Period Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Calendar Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Incinerator Costs																				
Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
O&M Costs (Utilities, Polymer, Ash Disposal, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Incincerator Annual Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Incinerator Operating Costs ($/ton)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Incinerator Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NPV Total Incinerator Costs	*0*																			
Total Project Cost/Ton - - AD + Incineration	**$127**	**$126**	**$126**	**$126**	**$126**	**$126**	**$125**	**$125**	**$125**	**$125**	**$125**	**$125**	**$125**	**$125**	**$125**	**$125**	**$125**	**$126**	**$126**	**$87**

Debt Service Schedule

AD Debt Service Schedule

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning Balance	36,837,501	35,752,553	34,610,644	33,408,786	32,143,830	30,812,463	29,411,200	27,936,371	26,384,113	24,750,362	23,030,839	21,221,040	19,316,228	17,311,412	15,201,344	12,980,497	10,643,056	8,182,899	5,593,584	2,868,330
Interest	1,933,969	1,877,009	1,817,059	1,753,961	1,687,551	1,617,654	1,544,088	1,466,659	1,385,166	1,299,394	1,209,119	1,114,105	1,014,102	908,849	798,071	681,476	558,760	429,602	293,663	150,587
Principal	1,084,949	1,141,908	1,201,858	1,264,956	1,331,366	1,401,263	1,474,829	1,552,258	1,633,751	1,719,523	1,809,798	1,904,813	2,004,815	2,110,068	2,220,847	2,337,441	2,460,157	2,589,315	2,725,254	
Annual Debt Service	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	3,018,917	
Use of Debt Service Reserve Fund	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,018,917
Ending Balance	35,752,553	34,610,644	33,408,786	32,143,830	30,812,463	29,411,200	27,936,371	26,384,113	24,750,362	23,030,839	21,221,040	19,316,228	17,311,412	15,201,344	12,980,497	10,643,056	8,182,899	5,593,584	2,868,330	0

Landfill Gas and Wet AD Gas-to-Power Calculations

The following data is applied, when appropriate, to other proformas. Individual per-case calculations are not performed on individual proformas.

Landfill Gas-to-Power Build-Up - - Sensitivity Analysis Only

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Landfill Gas Recovery (scfm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Landfill Gas (Btu/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Landfill Gas (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual Power Generation (kWh) for Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wet AD Gas-to-Power Build-Up

Annual Production Increase	0	0.97%	0.97%	0.97%	0.97%	0.97%	0.81%	0.81%	0.81%	0.81%	0.81%	1.11%	1.11%	1.11%	1.11%	1.11%	0.74%	0.74%	0.74%	0.74%
Digester Gas Production Parameters	165					173					180					190				
Digester Gas Production (scfm)	165	167	168	170	171	173	175	176	177	179	180	182	184	186	188	191	192	193	195	196
Digester Gas (Btu/hr)	6,435,000	6,497,400	6,560,405	6,624,021	6,688,254	6,753,110	6,807,759	6,862,851	6,918,389	6,974,375	7,030,816	7,108,936	7,187,924	7,267,790	7,348,543	7,430,193	7,484,942	7,540,094	7,595,653	7,651,621
Digester Gas (kWh)	604	609	615	621	627	633	638	644	649	654	659	667	674	682	689	697	702	707	712	718
Annual Power Generation (kWh) for Sale	4,229,447	4,270,460	4,311,870	4,353,683	4,395,900	4,438,527	4,474,446	4,510,655	4,547,157	4,583,955	4,621,051	4,672,396	4,724,311	4,776,804	4,829,879	4,883,545	4,919,529	4,955,778	4,992,294	5,029,079
Gross kWh/ton	157	156	156	155	155	154	153	153	152	151	150	150	150	150	149	149	148	147	147	146
Net kWh/ton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Case 1b
Proforma Analysis

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Proforma																				
Throughput (Tons/Year)																				
Yard Trimmings	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
Food Scraps	14,000	14,250	14,504	14,763	15,027	15,295	15,569	15,847	16,130	16,418	16,711	17,009	17,313	17,622	17,937	18,257	18,583	18,915	19,253	19,596
Yard Timmings & Food Scraps - - Annual Increase	0.0%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%
Biosolids	27,000	27,350	27,705	28,064	28,427	28,796	29,169	29,547	29,930	30,318	30,711	31,109	31,513	31,921	32,335	32,754	33,179	33,609	34,045	34,486
Biosolids - Annual Increase	0	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Total Tons to Facility Per Year	62,000	62,600	63,209	63,827	64,455	65,091	65,738	66,394	67,060	67,736	68,422	69,119	69,826	70,543	71,272	72,011	72,762	73,524	74,297	75,082
Food Scraps & Yard Trimmings Residuals	1,589	1,600	1,612	1,624	1,636	1,648	1,660	1,673	1,686	1,699	1,712	1,726	1,739	1,753	1,768	1,782	1,797	1,812	1,827	1,843
Biosolids Residuals (For Cost Projections)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Residuals for Disposal	1,589	1,600	1,612	1,624	1,636	1,648	1,660	1,673	1,686	1,699	1,712	1,726	1,739	1,753	1,768	1,782	1,797	1,812	1,827	1,843
Incinerator Throughput	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AD Costs																				
AD Debt Service																				
Total Annual Debt Service	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	0
AD Operating Costs																				
Dry AD O&M	2,062,548	2,112,049	2,162,738	2,214,644	2,267,795	2,322,222	2,377,956	2,435,026	2,493,467	2,553,310	2,614,590	2,677,340	2,741,596	2,807,394	2,874,772	2,943,766	3,014,417	3,086,763	3,160,845	3,236,705
Wet AD O&M	1,678,134	1,738,645	1,801,363	1,866,368	1,933,744	2,003,580	2,075,965	2,150,993	2,228,761	2,309,370	2,392,924	2,479,532	2,569,306	2,662,363	2,758,824	2,858,813	2,962,461	3,069,903	3,181,278	3,296,731
Annual Site Rent	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000
Additional Annual Landfill Closure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residuals for Disposal																				
Kirby Canyon Tipping Fee	41	43	44	45	47	48	49	51	52	54	56	57	59	61	63	64	66	68	70	73
Kirby Canyon Tipping Cost	65,737	68,193	70,745	73,399	76,159	79,028	82,011	85,114	88,340	91,696	95,187	98,819	102,597	106,527	110,617	114,873	119,302	123,911	128,708	133,702
Kirby Canyon Landfill Tax	32,686	32,919	33,157	33,399	33,645	33,896	34,151	34,410	34,674	34,943	35,217	35,496	35,780	36,068	36,362	36,661	36,966	37,276	37,591	37,912
Transportation to Kirby Canyon ($/ton)	11	12	12	12	12	13	13	13	14	14	14	15	15	15	16	16	16	17	17	18
Transportation to Kirby Canyon ($/year)	17,891	18,451	19,030	19,629	20,248	20,889	21,551	22,236	22,944	23,677	24,435	25,220	26,032	26,871	27,741	28,640	29,571	30,534	31,532	32,564
Biosolids Delivery to PALF Site (Solid Cake)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Biosolids Delivery to PALF Site (Liquid)	11,000	11,264	11,534	11,811	12,095	12,385	12,682	12,987	13,298	13,617	13,944	14,279	14,622	14,972	15,332	15,700	16,077	16,462	16,858	17,262
Pre-Tax IRR Cash Flow Required	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646	5,206,646
CO_2 Adder	420,602	441,632	463,714	486,899	511,244	536,807	563,647	591,829	621,421	652,492	685,116	719,372	755,341	793,108	832,763	874,401	918,121	964,028	1,012,229	1,062,840
Total Operating Costs	10,403,243	10,537,799	10,676,927	10,820,795	10,969,576	11,123,451	11,282,608	11,447,241	11,617,552	11,793,752	11,976,060	12,164,703	12,359,918	12,561,951	12,771,056	12,987,501	13,211,560	13,443,522	13,683,686	13,932,363
Total Project Costs	15,560,131	15,694,685	15,833,811	15,977,678	16,126,458	16,280,331	16,439,486	16,604,117	16,774,426	16,950,624	17,132,930	17,321,572	17,516,785	17,718,815	17,927,918	18,144,360	18,368,418	18,600,377	18,840,539	13,932,272
AD Revenues																				
Energy Sale (Gross Production = 1, Net Production = 2)	1																			
Annual Power Output (kWh/Year) for Sale	11,989,155	12,105,179	12,222,944	12,342,476	12,463,803	12,586,952	12,711,951	12,838,829	12,967,615	13,098,338	13,231,029	13,365,717	13,502,433	13,641,209	13,782,076	13,925,068	14,070,216	14,217,554	14,367,116	14,518,937
Power Revenue (Energy)	1,710,133	1,726,683	1,743,481	1,760,531	1,777,837	1,795,403	1,813,233	1,831,331	1,849,701	1,868,347	1,887,274	1,906,486	1,925,987	1,945,782	1,965,875	1,986,272	2,006,976	2,027,992	2,049,325	2,070,981
Power Revenue (Capacity) - - Dry AD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power Revenue (Capacity) - - Wet AD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power Revenue (Landfill)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas Revenue (Food Scraps & Yard Trimmings)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas Revenue (Biosolids)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ferrous Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Glass Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plastics Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Compost Revenue - - Food Scraps & Yard Trimmings	354,422	365,521	368,159	370,845	373,579	376,361	379,193	382,076	385,010	387,997	391,037	394,131	397,281	400,487	403,750	407,071	410,452	413,893	417,395	420,960
Compost Revenues - - Biosolids	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AD Other Revenues																				
Debt Service Reserve Fund Interest	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	103,139	0
Total AD Annual Revenues	2,167,694	2,195,342	2,214,779	2,234,514	2,254,554	2,274,903	2,295,565	2,316,546	2,337,850	2,359,483	2,381,450	2,403,756	2,426,407	2,449,408	2,472,764	2,496,482	2,520,566	2,545,023	2,569,859	2,491,941
Net Annual Cost	(13,392,489)	(13,499,397)	(13,619,089)	(13,743,221)	(13,871,962)	(14,005,489)	(14,143,983)	(14,287,635)	(14,436,642)	(14,591,209)	(14,751,551)	(14,917,888)	(15,090,452)	(15,269,483)	(15,455,233)	(15,647,959)	(15,847,934)	(16,055,439)	(16,270,767)	(11,440,421)
NPV Net Annual Cost	*(178,962,405)*																			

Case 1b
Proforma Analysis

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Incinerator Costs																				
Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
O&M Costs (Utilities, Polymer, Ash Disposal, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Incincerator Annual Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Incinerator Operating Costs ($/ton)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Incinerator Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NPV Total Incinerator Costs	*0*																			
Total Project Cost/Ton - - AD + Incineration	**$216**	**$216**	**$215**	**$215**	**$215**	**$215**	**$215**	**$215**	**$215**	**$215**	**$216**	**$216**	**$216**	**$216**	**$217**	**$217**	**$218**	**$218**	**$219**	**$152**

Debt Service Schedule

AD Debt Service Schedule

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning Balance	62,926,134	61,072,815	59,122,198	57,069,173	54,908,364	52,634,113	50,240,464	47,721,148	45,069,567	42,278,779	39,341,475	36,249,962	32,996,145	29,571,502	25,967,066	22,173,396	18,180,559	13,978,098	9,555,008	4,899,706
Interest	3,303,622	3,206,323	3,103,915	2,996,132	2,882,689	2,763,291	2,637,624	2,505,360	2,366,152	2,219,636	2,065,427	1,903,123	1,732,298	1,552,504	1,363,271	1,164,103	954,479	733,850	501,638	257,235
Principal	1,853,318	1,950,618	2,053,025	2,160,809	2,274,251	2,393,649	2,519,316	2,651,580	2,790,788	2,937,304	3,091,513	3,253,817	3,424,643	3,604,436	3,793,669	3,992,837	4,202,461	4,423,090	4,655,302	0
Annual Debt Service	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	5,156,940	0
Use of Debt Service Reserve Fund	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,156,940
Ending Balance	61,072,815	59,122,198	57,069,173	54,908,364	52,634,113	50,240,464	47,721,148	45,069,567	42,278,779	39,341,475	36,249,962	32,996,145	29,571,502	25,967,066	22,173,396	18,180,559	13,978,098	9,555,008	4,899,706	0

Wet AD O&M

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Biosolids Annual Increase	0.0%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Labor	153,677	157,366	161,142	165,010	168,970	173,025	177,178	181,430	185,785	190,243	194,809	199,485	204,272	209,175	214,195	219,336	224,600	229,990	235,510	241,162
Power	274,316	284,541	295,147	306,148	317,560	329,396	341,674	354,410	367,620	381,323	395,536	410,280	425,572	441,435	457,889	474,957	492,660	511,024	530,072	549,830
Total Wet AD O&M	427,993	441,907	456,289	471,158	486,530	502,422	518,852	535,840	553,405	571,566	590,346	609,764	629,845	650,610	672,084	694,293	717,260	741,014	765,582	790,992

Digestate Hauling & Disposal

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Biosolids Annual Increase	0.0%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Digestate Hauling	555,785	576,501	597,989	620,279	643,399	667,381	692,257	718,061	744,826	772,588	801,386	831,257	862,241	894,380	927,718	962,297	998,166	1,035,372	1,073,964	1,113,995
Digestate Disposal	694,356	720,238	747,084	774,931	803,815	833,777	864,855	897,092	930,530	965,215	1,001,192	1,038,511	1,077,220	1,117,373	1,159,022	1,202,223	1,247,035	1,293,517	1,341,732	1,391,743
Total Digestate Costs	1,250,141	1,296,738	1,345,073	1,395,210	1,447,215	1,501,158	1,557,113	1,615,152	1,675,356	1,737,803	1,802,578	1,869,768	1,939,461	2,011,753	2,086,739	2,164,521	2,245,201	2,328,889	2,415,696	2,505,739

Case 1c
Proforma Analysis

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Proforma																				
Throughput (Tons/Year)																				
Yard Trimmings	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
Food Scraps	14,000	14,250	14,504	14,763	15,027	15,295	15,569	15,847	16,130	16,418	16,711	17,009	17,313	17,622	17,937	18,257	18,583	18,915	19,253	19,596
Yard Timmings & Food Scraps - - Annual Increase	0.0%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%
Biosolids	27,000	27,350	27,705	28,064	28,427	28,796	29,169	29,547	29,930	30,318	30,711	31,109	31,513	31,921	32,335	32,754	33,179	33,609	34,045	34,486
Biosolids - Annual Increase	0	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Total Tons to Facility Per Year	62,000	62,600	63,209	63,827	64,455	65,091	65,738	66,394	67,060	67,736	68,422	69,119	69,826	70,543	71,272	72,011	72,762	73,524	74,297	75,082
Food Scraps & Yard Trimmings Residuals	1,589	1,600	1,612	1,624	1,636	1,648	1,660	1,673	1,686	1,699	1,712	1,726	1,739	1,753	1,768	1,782	1,797	1,812	1,827	1,843
Biosolids Residuals (For Cost Projections)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Residuals for Disposal	1,589	1,600	1,612	1,624	1,636	1,648	1,660	1,673	1,686	1,699	1,712	1,726	1,739	1,753	1,768	1,782	1,797	1,812	1,827	1,843
Incinerator Throughput	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AD Costs																				
AD Debt Service																				
Total Annual Debt Service	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	0
AD Operating Costs																				
Dry AD O&M	2,062,548	2,112,049	2,162,738	2,214,644	2,267,795	2,322,222	2,377,956	2,435,026	2,493,467	2,553,310	2,614,590	2,677,340	2,741,596	2,807,394	2,874,772	2,943,766	3,014,417	3,086,763	3,160,845	3,236,705
Wet AD O&M	1,678,134	1,738,645	1,801,363	1,866,368	1,933,744	2,003,580	2,075,965	2,150,993	2,228,761	2,309,370	2,392,924	2,479,532	2,569,306	2,662,363	2,758,824	2,858,813	2,962,461	3,069,903	3,181,278	3,296,731
Annual Site Rent	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000
Additional Annual Landfill Closure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residuals for Disposal																				
Kirby Canyon Tipping Fee	41	43	44	45	47	48	49	51	52	54	56	57	59	61	63	64	66	68	70	73
Kirby Canyon Tipping Cost	65,737	68,193	70,745	73,399	76,159	79,028	82,011	85,114	88,340	91,696	95,187	98,819	102,597	106,527	110,617	114,873	119,302	123,911	128,708	133,702
Kirby Canyon Landfill Tax	32,686	32,919	33,157	33,399	33,645	33,896	34,151	34,410	34,674	34,943	35,217	35,496	35,780	36,068	36,362	36,661	36,966	37,276	37,591	37,912
Transportation to Kirby Canyon ($/ton)	11	12	12	12	12	13	13	13	14	14	14	15	15	15	16	16	16	17	17	18
Transportation to Kirby Canyon ($/year)	17,891	18,451	19,030	19,629	20,248	20,889	21,551	22,236	22,944	23,677	24,435	25,220	26,032	26,871	27,741	28,640	29,571	30,534	31,532	32,564
Biosolids Delivery to PALF Site (Solid Cake)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Biosolids Delivery to PALF Site (Liquid)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre-Tax IRR Cash Flow Required	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197	5,133,197
CO_2 Adder	419,804	440,794	462,834	485,976	510,275	535,788	562,578	590,707	620,242	651,254	683,817	718,008	753,908	791,603	831,184	872,743	916,380	962,199	1,010,309	1,060,824
Total Operating Costs	10,317,996	10,452,248	10,591,064	10,734,611	10,883,063	11,036,600	11,195,408	11,359,683	11,529,626	11,705,448	11,887,368	12,075,611	12,270,415	12,472,025	12,680,696	12,896,693	13,120,293	13,351,783	13,591,460	13,839,636
Total Project Costs	15,402,189	15,536,441	15,675,257	15,818,804	15,967,256	16,120,792	16,279,601	16,443,875	16,613,819	16,789,641	16,971,560	17,159,804	17,354,608	17,556,218	17,764,889	17,980,886	18,204,486	18,435,975	18,675,653	13,839,636
AD Revenues																				
Energy Sale (Gross Production = 1, Net Production = 2)	1																			
Annual Power Output (kWh/Year) for Sale	11,989,155	12,105,179	12,222,944	12,342,476	12,463,803	12,586,952	12,711,951	12,838,829	12,967,615	13,098,338	13,231,029	13,365,717	13,502,433	13,641,209	13,782,076	13,925,068	14,070,216	14,217,554	14,367,116	14,518,937
Power Revenue (Energy)	1,710,133	1,726,683	1,743,481	1,760,531	1,777,837	1,795,403	1,813,233	1,831,331	1,849,701	1,868,347	1,887,274	1,906,486	1,925,987	1,945,782	1,965,875	1,986,272	2,006,976	2,027,992	2,049,325	2,070,981
Power Revenue (Capacity) - - Dry AD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Powe Revenue (Capacity) - - Wet AD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power Revenue (Landfill)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas Revenue (Food Scraps & Yard Trimmings)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas Revenue (Biosolids)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ferrous Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Glass Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plastics Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Compost Revenue - - Food Scraps & Yard Trimmings	354,422	365,521	368,159	370,845	373,579	376,361	379,193	382,076	385,010	387,997	391,037	394,131	397,281	400,487	403,750	407,071	410,452	413,893	417,395	420,960
Compost Revenue - - Biosolids	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Revenues																				
Debt Service Reserve Fund Interest	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	101,684	0
Total AD Annual Revenues	2,166,239	2,193,887	2,213,324	2,233,060	2,253,099	2,273,448	2,294,110	2,315,091	2,336,395	2,358,028	2,379,995	2,402,301	2,424,952	2,447,953	2,471,309	2,495,027	2,519,111	2,543,568	2,568,404	2,491,941
Net Annual Cost	(13,235,950)	(13,342,554)	(13,461,933)	(13,585,745)	(13,714,157)	(13,847,345)	(13,985,491)	(14,128,785)	(14,277,424)	(14,431,613)	(14,591,565)	(14,757,503)	(14,929,656)	(15,108,265)	(15,293,580)	(15,485,860)	(15,685,375)	(15,892,407)	(16,107,248)	(11,347,694)
NPV Net Annual Cost	*(177,003,435)*																			

Case 1c
Proforma Analysis

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Incinerator Costs																				
Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
O&M Costs (Utilities, Polymer, Ash Disposal, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Incincerator Annual Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Incinerator Operating Costs ($/ton)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Incinerator Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NPV Total Incinerator Costs	*0*																			
Total Project Cost/Ton - - AD + Incineration	**$213**	**$213**	**$213**	**$213**	**$213**	**$213**	**$213**	**$213**	**$213**	**$213**	**$213**	**$214**	**$214**	**$214**	**$215**	**$215**	**$216**	**$216**	**$217**	**$151**

Debt Service Schedule

Ad Debt Service Schedule

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning Balance	62,038,452	60,211,278	58,288,177	56,264,114	54,133,787	51,891,618	49,531,735	47,047,958	44,433,783	41,682,364	38,786,496	35,738,594	32,530,677	29,154,345	25,600,755	21,860,602	17,924,091	13,780,913	9,420,218	4,830,587
Interest	3,257,019	3,161,092	3,060,129	2,953,866	2,842,024	2,724,310	2,600,416	2,470,018	2,332,774	2,188,324	2,036,291	1,876,276	1,707,861	1,530,603	1,344,040	1,147,682	941,015	723,498	494,561	253,606
Principal	1,827,174	1,923,101	2,024,063	2,130,327	2,242,169	2,359,883	2,483,777	2,614,175	2,751,419	2,895,869	3,047,902	3,207,917	3,376,332	3,553,590	3,740,153	3,936,511	4,143,178	4,360,695	4,589,631	0
Annual Debt Service	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	5,084,193	0
Use of Debt Service Reserve Fund	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,084,193
Ending Balance	60,211,278	58,288,177	56,264,114	54,133,787	51,891,618	49,531,735	47,047,958	44,433,783	41,682,364	38,786,496	35,738,594	32,530,677	29,154,345	25,600,755	21,860,602	17,924,091	13,780,913	9,420,218	4,830,587	0

Case 1d
Proforma Analysis

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Proforma																				
Throughput (Tons/Year)																				
Yard Trimmings	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
Food Scraps	14,000	14,250	14,504	14,763	15,027	15,295	15,569	15,847	16,130	16,418	16,711	17,009	17,313	17,622	17,937	18,257	18,583	18,915	19,253	19,596
Yard Timmings & Food Scraps - - Annual Increase	0.0%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%
Biosolids	27,000	27,350	27,705	28,064	28,427	28,796	29,169	29,547	29,930	30,318	30,711	31,109	31,513	31,921	32,335	32,754	33,179	33,609	34,045	34,486
Biosolids - Annual Increase	0	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Total Tons to Facility Per Year	62,000	62,600	63,209	63,827	64,455	65,091	65,738	66,394	67,060	67,736	68,422	69,119	69,826	70,543	71,272	72,011	72,762	73,524	74,297	75,082
Food Scraps & Yard Trimmings Residuals	1,589	1,600	1,612	1,624	1,636	1,648	1,660	1,673	1,686	1,699	1,712	1,726	1,739	1,753	1,768	1,782	1,797	1,812	1,827	1,843
Biosolids Residuals (For Cost Projections)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Residuals for Disposal	1,589	1,600	1,612	1,624	1,636	1,648	1,660	1,673	1,686	1,699	1,712	1,726	1,739	1,753	1,768	1,782	1,797	1,812	1,827	1,843
Incinerator Throughpu	27,000	27,350	27,705	28,064	28,427	28,796	29,169	29,547	29,930	30,318	30,711	31,109	31,513	31,921	32,335	32,754	33,179	33,609	34,045	34,486
AD Costs																				
AD Debt Service																				
Total Annual Debt Service	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	0
AD Operating Costs																				
Dry AD O&M	1,740,003	1,781,763	1,824,525	1,868,314	1,913,153	1,959,069	2,006,087	2,054,233	2,103,534	2,154,019	2,205,716	2,258,653	2,312,860	2,368,369	2,425,210	2,483,415	2,543,017	2,604,049	2,666,546	2,730,544
Wet AD O&M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual Site Rent	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000	908,000
Additional Annual Landfill Closure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residuals Disposal																				
Kirby Canyon Tipping Fee	41	43	44	45	47	48	49	51	52	54	56	57	59	61	63	64	66	68	70	73
Kirby Canyon Tipping Cost	65,737	68,193	70,745	73,399	76,159	79,028	82,011	85,114	88,340	91,696	95,187	98,819	102,597	106,527	110,617	114,873	119,302	123,911	128,708	133,702
Kirby Canyon Landfill Tax	32,686	32,919	33,157	33,399	33,645	33,896	34,151	34,410	34,674	34,943	35,217	35,496	35,780	36,068	36,362	36,661	36,966	37,276	37,591	37,912
Transportation to Kirby Canyon ($/ton)	11	12	12	12	12	13	13	13	14	14	14	15	15	15	16	16	16	17	17	18
Transportation to Kirby Canyon ($/year)	17,891	18,451	19,030	19,629	20,248	20,889	21,551	22,236	22,944	23,677	24,435	25,220	26,032	26,871	27,741	28,640	29,571	30,534	31,532	32,564
Biosolids Delivery to PALF Site (Solid Cake)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Biosolids Delivery to PALF Site (Liquid)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre-Tax IRR Cash Flow Required	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493	2,047,493
CO_2 Adder	623,663	654,847	687,589	721,968	758,067	795,970	835,769	877,557	921,435	967,507	1,015,882	1,066,676	1,120,010	1,176,011	1,234,811	1,296,552	1,361,379	1,429,448	1,500,921	1,575,967
Total Operating Costs	5,435,473	5,511,665	5,590,540	5,672,202	5,756,765	5,844,344	5,935,061	6,029,043	6,126,422	6,227,336	6,331,931	6,440,357	6,552,771	6,669,340	6,790,234	6,915,634	7,045,728	7,180,712	7,320,791	7,466,182
Total Project Costs	7,463,419	7,539,612	7,618,486	7,700,149	7,784,712	7,872,291	7,963,008	8,056,989	8,154,368	8,255,283	8,359,878	8,468,303	8,580,718	8,697,286	8,818,181	8,943,581	9,073,674	9,208,658	9,348,738	7,466,182
AD Revenues																				
Energy Sale (Gross Production = 1, Net Production = 2)	1																			
Annual Power Output (kWh/Year) for Sale	6,188,490	6,248,379	6,309,166	6,370,865	6,433,491	6,497,057	6,561,578	6,627,070	6,693,546	6,761,022	6,829,513	6,899,035	6,969,605	7,041,237	7,113,949	7,187,758	7,262,680	7,338,732	7,415,932	7,494,298
Power Revenue (Energy)	882,726	891,269	899,939	908,740	917,673	926,740	935,944	945,285	954,767	964,392	974,162	984,078	994,144	1,004,362	1,014,734	1,025,262	1,035,949	1,046,797	1,057,809	1,068,987
Power Revenue (Capacity) - - Dry AD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power Revenue (Capacity) - - Wet AD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power Revenue (Landfill)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas Revenue (Food Scraps & Yard Trimmings)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas Revenue (Biosolids)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ferrous Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Glass Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plastics Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Compost Revenue - - Food Scraps & Yard Trimmings	354,422	365,521	368,159	370,845	373,579	376,361	379,193	382,076	385,010	387,997	391,037	394,131	397,281	400,487	403,750	407,071	410,452	413,893	417,395	420,960
Compost Revenue - - Biosolids	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Revenues																				
Debt Service Reserve Fund Interest	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	40,559	0
Total AD Annual Revenues	1,277,707	1,297,348	1,308,657	1,320,144	1,331,811	1,343,660	1,355,696	1,367,920	1,380,337	1,392,948	1,405,758	1,418,769	1,431,984	1,445,408	1,459,042	1,472,892	1,486,959	1,501,248	1,515,763	1,489,947
Net Annual Cost	(6,185,712)	(6,242,264)	(6,309,829)	(6,380,005)	(6,452,901)	(6,528,631)	(6,607,312)	(6,689,069)	(6,774,032)	(6,862,335)	(6,954,120)	(7,049,535)	(7,148,734)	(7,251,879)	(7,359,138)	(7,470,689)	(7,586,715)	(7,707,410)	(7,832,976)	(5,976,235)
NPV Net Annual Cost	*(84,255,238)*																			

Case 1d
Proforma Analysis

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Incinerator Costs																				
Labor	226,003	231,427	236,981	242,669	248,493	254,457	260,564	266,817	273,221	279,778	286,493	293,369	300,410	307,619	315,002	322,562	0	0	0	0
O&M Costs (Utilities, Polymer, Ash Disposal, etc.)	2,205,310	2,287,511	2,372,776	2,461,219	2,552,959	2,648,118	2,746,824	2,849,209	2,955,411	3,065,571	3,179,838	3,298,363	3,421,306	3,548,833	3,681,112	3,818,322	0	0	0	0
New FBI Debt Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,259,154	25,259,154	25,259,154	25,259,154
New FBI O&M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,465,406	4,572,575	4,682,317	4,794,693
Total Incinerator Annual Operating Costs	2,431,313	2,518,938	2,609,757	2,703,888	2,801,452	2,902,575	3,007,388	3,116,027	3,228,632	3,345,349	3,466,330	3,591,732	3,721,716	3,856,452	3,996,114	4,140,884	29,724,560	29,831,730	29,941,472	30,053,847
Incinerator Operating Costs ($/ton)	90	92	94	96	99	101	103	105	108	110	113	115	118	121	124	126	896	888	879	871
Total Incinerator Costs	(2,431,313)	(2,518,938)	(2,609,757)	(2,703,888)	(2,801,452)	(2,902,575)	(3,007,388)	(3,116,027)	(3,228,632)	(3,345,349)	(3,466,330)	(3,591,732)	(3,721,716)	(3,856,452)	(3,996,114)	(4,140,884)	(29,724,560)	(29,831,730)	(29,941,472)	(30,053,847)
NPV Total Incinerator Costs	*(82,129,076)*																			
Total Project Cost/Ton - - AD + Incineration	**139**	**140**	**141**	**142**	**144**	**145**	**146**	**148**	**149**	**151**	**152**	**154**	**156**	**157**	**159**	**161**	**513**	**511**	**508**	**480**

Debt Service Schedule

AD Debt Service Schedule

Study Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Fiscal Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning Balance	24,745,457	24,016,647	23,249,574	22,442,230	21,592,500	20,698,160	19,756,867	18,766,155	17,723,432	16,625,965	15,470,882	14,255,156	12,975,605	11,628,878	10,211,447	8,719,602	7,149,434	5,496,833	3,757,470	1,926,790
Interest	1,299,136	1,260,874	1,220,603	1,178,217	1,133,606	1,086,653	1,037,235	985,223	930,480	872,863	812,221	748,396	681,219	610,516	536,101	457,779	375,345	288,584	197,267	101,156
Principal	728,810	767,073	807,344	849,730	894,340	941,293	990,711	1,042,724	1,097,467	1,155,084	1,215,725	1,279,551	1,346,727	1,417,431	1,491,846	1,570,168	1,652,601	1,739,363	1,830,680	0
Annual Debt Service	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	2,027,947	0
Use of Debt Service Reserve Fund	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,027,947
Ending Balance	24,016,647	23,249,574	22,442,230	21,592,500	20,698,160	19,756,867	18,766,155	17,723,432	16,625,965	15,470,882	14,255,156	12,975,605	11,628,878	10,211,447	8,719,602	7,149,434	5,496,833	3,757,470	1,926,790	0

Alternative 2
Food Scraps to San Jose Facility, Yard Trimmings to Gilroy Facility
Proforma Analysis

1. Inputs

Food Scraps Transportation Cost ($/Ton) (2010)	2.60
Food Scraps Processing Cost ($/Ton) (2010)	85.00
	87.60
Yard Trimmings Transportation Cost ($/Ton) (2010	2.00
Yard Trimmings Processing Cost ($/Ton) (2010)	26.00
	28.00
Biosolids Tons/Year	27,000
Biosolids Incineration (Total Annual Costs) (2010)	2,159,440
Biosolids Total Cost ($/Ton) (2010)	79.98
Inflation Rate	2.40%
Cost Estimating Year	2010
NPV Discount Rate	5.00%

2. Food Scraps Cost Projection

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Tons/Year	14,000	14,250	14,504	14,763	15,027	15,295	15,569	15,847	16,130	16,418	16,711	17,009	17,313	17,622	17,937	18,257	18,583	18,915	19,253	19,596
Cost/Ton ($)	99	101	103	106	108	111	114	116	119	122	125	128	131	134	137	141	144	148	151	155
Total Annual Cost ($)	1,380,804	1,439,192	1,500,049	1,563,480	1,629,593	1,698,501	1,770,324	1,845,183	1,923,208	2,004,532	2,089,295	2,177,642	2,269,726	2,365,703	2,465,738	2,570,003	2,678,678	2,791,948	2,910,007	3,033,059

3. Yard Trimmings Cost Projection

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Tons/Year	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
Cost/Ton ($)	32	32	33	34	35	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Total Annual Cost ($)	662,029	677,918	694,188	710,848	727,909	745,379	763,268	781,586	800,344	819,552	839,222	859,363	879,988	901,107	922,734	944,880	967,557	990,778	1,014,557	1,038,906

4. Biosolids Cost Projection

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Tons/Year	27,000	27,350	27,705	28,064	28,427	28,796	29,169	29,547	29,930	30,318	30,711	31,109	31,513	31,921	32,335	32,754	33,179	33,609	34,045	34,486
Cost/Ton ($)	90	92	94	96	99	101	103	105	108	110	113	115	118	121	124	126	896	888	879	871
Total Annual Cost ($)	2,431,313	2,518,938	2,609,757	2,703,888	2,801,452	2,902,575	3,007,388	3,116,027	3,228,632	3,345,349	3,466,330	3,591,732	3,721,716	3,856,452	3,996,114	4,140,884	29,724,560	29,831,730	29,941,472	30,053,847

5. CO_2 Adder

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Annual Cost ($)	689,351	723,819	760,010	798,010	837,911	879,806	923,796	969,986	1,018,486	1,069,410	1,122,880	1,179,024	1,237,976	1,299,874	1,364,868	1,433,112	1,504,767	1,580,005	1,659,006	1,741,956
Cost/Ton ($)	11	12	12	13	13	14	14	15	15	16	16	17	18	18	19	20	21	21	22	23

6. Total Cost - Alternative 2

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Cost/Ton ($)	**83**	**86**	**88**	**90**	**93**	**96**	**98**	**101**	**104**	**107**	**110**	**113**	**116**	**119**	**123**	**126**	**479**	**479**	**478**	**478**
Total Annual Cost ($)	5,163,497	5,359,867	5,564,004	5,776,226	5,996,864	6,226,261	6,464,775	6,712,782	6,970,669	7,238,844	7,517,728	7,807,762	8,109,405	8,423,136	8,749,454	9,088,879	34,875,562	35,194,461	35,525,041	35,867,768

Total Cost	252,632,985
NPV Total Cost	129,844,849

Alternative 3
Food Scraps and Yard Trimmings to Gilroy Facility
Proforma Analysis

1. Inputs

Food Scraps Transportation Cost ($/Ton) (2010)	2.60
Food Scraps Processing Cost ($/Ton) (2010)	70.00
	72.60
Yard Trimmings Transportation Cost ($/Ton) (2010	2.00
Yard Trimmings Processing Cost ($/Ton) (2010)	26.00
	28.00
Biosolids Tons/Year	27,000
Biosolids Incineration (Total Annual Costs) (2010)	2,159,440
Biosolids Total Cost ($/Ton) (2010)	80
Inflation Rate	2.40%
Cost Estimating Year	2010
NPV Discount Rate	5.00%

2. Food Scraps Cost Projection

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Tons/Year	14,000	14,250	14,504	14,763	15,027	15,295	15,569	15,847	16,130	16,418	16,711	17,009	17,313	17,622	17,937	18,257	18,583	18,915	19,253	19,596
Cost/Ton ($)	82	84	86	88	90	92	94	97	99	101	104	106	109	111	114	117	119	122	125	128
Total Annual Cost ($)	1,144,365	1,192,755	1,243,191	1,295,761	1,350,553	1,407,662	1,467,186	1,529,227	1,593,891	1,661,290	1,731,539	1,804,758	1,881,074	1,960,616	2,043,523	2,129,934	2,220,000	2,313,874	2,411,718	2,513,700

3. Yard Trimmings Cost Projection

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Tons/Year	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
Cost/Ton ($)	32	32	33	34	35	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Total Annual Cost ($)	662,029	677,918	694,188	710,848	727,909	745,379	763,268	781,586	800,344	819,552	839,222	859,363	879,988	901,107	922,734	944,880	967,557	990,778	1,014,557	1,038,906

4. Biosolids Cost Projection

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Tons/Year	27,000	27,350	27,705	28,064	28,427	28,796	29,169	29,547	29,930	30,318	30,711	31,109	31,513	31,921	32,335	32,754	33,179	33,609	34,045	34,486
Cost/Ton ($)	90	92	94	96	99	101	103	105	108	110	113	115	118	121	124	126	896	888	879	871
Total Annual Cost ($)	2,431,313	2,518,938	2,609,757	2,703,888	2,801,452	2,902,575	3,007,388	3,116,027	3,228,632	3,345,349	3,466,330	3,591,732	3,721,716	3,856,452	3,996,114	4,140,884	29,724,560	29,831,730	29,941,472	30,053,847

5. CO_2 Adder

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Annual Cost ($)	671,238	704,799	740,039	777,041	815,893	856,688	899,523	944,499	991,724	1,041,310	1,093,375	1,148,044	1,205,446	1,265,719	1,329,004	1,395,455	1,465,227	1,538,489	1,615,413	1,696,184
Cost/Ton ($)	11	11	12	12	13	13	14	14	15	15	16	17	17	18	19	19	20	21	22	23

6. Total Cost - Alternative 3

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Cost/Ton ($)	**79**	**81**	**84**	**86**	**88**	**91**	**93**	**96**	**99**	**101**	**104**	**107**	**110**	**113**	**116**	**120**	**472**	**472**	**471**	**470**
Total Annual Cost ($)	4,908,945	5,094,410	5,287,176	5,487,538	5,695,807	5,912,303	6,137,364	6,371,338	6,614,591	6,867,502	7,130,466	7,403,897	7,688,224	7,983,894	8,291,375	8,611,153	34,377,344	34,674,871	34,983,160	35,302,637

Total Cost	244,823,996
NPV Total Costs	125,297,128

Alternatives 2 & 3
Fluidized Bed Incinerator Cost Projections

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Tons/Year	27,000	27,350	27,705	28,064	28,427	28,796	29,169	29,547	29,930	30,318	30,711	31,109	31,513	31,921	32,335	32,754	33,179	33,609	34,045	34,486
Debt Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,259,154	25,259,154	25,259,154	25,259,154
O&M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,465,406	4,572,575	4,682,317	4,794,693
Total Annual Cost ($)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29,724,560	29,831,730	29,941,472	30,053,847
Cost/Ton ($)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	896	888	879	871

Alternatives 2a & 3a
Wet AD @ RWQCP
Proforma Analysis

Alternative 2a

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Food Scraps Cost ($)	1,380,804	1,439,192	1,500,049	1,563,480	1,629,593	1,698,501	1,770,324	1,845,183	1,923,208	2,004,532	2,089,295	2,177,642	2,269,726	2,365,703	2,465,738	2,570,003	2,678,678	2,791,948	2,910,007	3,033,059
Yard Trimmings Cost ($)	662,029	677,918	694,188	710,848	727,909	745,379	763,268	781,586	800,344	819,552	839,222	859,363	879,988	901,107	922,734	944,880	967,557	990,778	1,014,557	1,038,906
Wet AD Cost ($)	3,684,565	3,695,599	3,706,898	3,718,469	3,730,316	3,742,449	3,754,872	3,767,594	3,780,621	3,793,960	3,807,620	3,821,607	3,835,930	3,850,597	3,865,616	3,880,996	3,896,744	3,912,871	3,929,384	3,946,294
CO_2 Adder ($)	485,492	509,766	535,255	562,018	590,118	619,624	650,606	683,136	717,293	753,157	790,815	830,356	871,874	915,467	961,241	1,009,303	1,059,768	1,112,756	1,168,394	1,226,814
Total Annual Cost ($)	6,212,890	6,322,475	6,436,390	6,554,814	6,677,936	6,805,953	6,939,069	7,077,498	7,221,465	7,371,202	7,526,952	7,688,968	7,857,517	8,032,875	8,215,329	8,405,182	8,602,747	8,808,353	9,022,342	9,245,073
Cost/Ton ($)	100	101	102	103	104	105	106	107	108	109	110	111	113	114	115	117	118	120	121	123

Total Costs	151,025,030
NPV Total Costs	90,994,466

Alternative 3a

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Food Scraps Cost ($)	1,144,365	1,192,755	1,243,191	1,295,761	1,350,553	1,407,662	1,467,186	1,529,227	1,593,891	1,661,290	1,731,539	1,804,758	1,881,074	1,960,616	2,043,523	2,129,934	2,220,000	2,313,874	2,411,718	2,513,700
Yard Trimmings Cost ($)	662,029	677,918	694,188	710,848	727,909	745,379	763,268	781,586	800,344	819,552	839,222	859,363	879,988	901,107	922,734	944,880	967,557	990,778	1,014,557	1,038,906
Wet AD Cost ($)	3,684,565	3,695,599	3,706,898	3,718,469	3,730,316	3,742,449	3,754,872	3,767,594	3,780,621	3,793,960	3,807,620	3,821,607	3,835,930	3,850,597	3,865,616	3,880,996	3,896,744	3,912,871	3,929,384	3,946,294
CO_2 Adder ($)	467,408	490,778	515,317	541,083	568,137	596,544	626,371	657,690	690,574	725,103	761,358	799,426	839,397	881,367	925,435	971,707	1,020,293	1,071,307	1,124,873	1,181,116
Total Annual Cost ($)	5,958,367	6,057,050	6,179,532	6,287,095	6,398,896	6,515,113	6,635,931	6,761,542	6,892,149	7,027,960	7,169,196	7,316,084	7,468,866	7,627,789	7,793,114	7,965,113	8,144,069	8,330,280	8,524,054	8,725,714
Cost/Ton ($)	96	97	98	99	99	100	101	102	103	104	105	106	107	108	109	111	112	113	115	116

Total Costs	143,777,913
NPV Total Costs	86,757,320

Wet AD Facility Cost Build-Up (Alternatives 2a & 3a Only)

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total Tons/Year	27,000	27,350	27,705	28,064	28,427	28,796	29,169	29,547	29,930	30,318	30,711	31,109	31,513	31,921	32,335	32,754	33,179	33,609	34,045	34,486
Debt Service	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806	3,224,806
O&M	459,759	470,793	482,092	493,662	505,510	517,642	530,066	542,787	555,814	569,154	582,813	596,801	611,124	625,791	640,810	656,189	671,938	688,065	704,578	721,488
Total Annual Cost ($)	3,684,565	3,695,599	3,706,898	3,718,469	3,730,316	3,742,449	3,754,872	3,767,594	3,780,621	3,793,960	3,807,620	3,821,607	3,835,930	3,850,597	3,865,616	3,880,996	3,896,744	3,912,871	3,929,384	3,946,294
Cost/Ton ($)	136	135	134	133	131	130	129	128	126	125	124	123	122	121	120	118	117	116	115	114