

Yellow shading designates areas of significant uncertainty
 Date of Analysis = 1/21/10

Project Costs and Revenue Streams	Year	Project Costs and Revenue Streams	Year	Project Costs and Revenue Streams	
LFG Collection System Efficiency	2010	Unit Values of Revenue Streams from Energy Sales		10 Year Project Life Economics	
Average Methane Content (%)	50%	Potential Renewable Energy Credit in \$/kWh ^{9/}	\$ -	Project Return on Investment	17.2%
Average Active Phase(s) Collection Efficiency (%)	76%	Proposed Power Sale Price to Utility/Co-op (\$/kWh) ^{10/}	\$ -	5% Project NPV	\$1,200,071
Average Inactive/Closed Phase(s) Collection Efficiency (%)	85%	Proposed "Bundled" Power Sale Price (\$/kWh)	\$ -	Payback on Initial Investment (years)	5.6
Capital Costs (\$)				20 Year Project Life Economics	
Initial LFG Collection ^{1/}	Cost Included	Annual Escalator Values (%/year)^{11/}		Project Return on Investment	16.5%
Collection System	\$ 950,000	Capital Costs	2.0%	5% Project NPV	\$975,592
Flare/Blower	\$ 150,000	O&M Costs	2.0%	Payback on Initial Investment (years)	5.6
Engineering / Permitting / Construction (assume 20%)	\$ 220,000	Revenue (REC, Carbon Credit, and Electric Value)	2.0%		
Subtotal - Collection System	\$ 1,320,000				
Future LFG Collection Expansion cost per year ^{2/}	Cost Included	Carbon Value Basis^{12/}	Conservative	Carbon Value Detail	Project Year
Engineering / Permitting / Construction (assume 20%)	\$ 50,000	Carbon Credit Value (\$/tonne)	2011	Annual escalator of	Projected Value
Subtotal - Collection System	\$ 60,000		\$ 6.829	2.5%	2010 \$6.663
Periodic Collection System Costs (1-year increment)		Project Tax Position and Credits^{13/}	2011	Non-Exempt	2011 \$6.829
Additional LFG Treating Costs ^{3/}		Project Basis for Tax Credit Purposes		Corporate	2012 \$7.000
LFG Dryer System	Cost Excluded	Effective Federal Corporate Income Tax Rate			2013 \$7.175
Siloxane removal	Cost Excluded	Effective State (GA) Corporate Income Tax Rate	34.0%		2014 \$7.354
Sulfatreat	Cost Excluded	Section 45 Tax Credit (\$/kWh)	\$ 0.011		2015 \$7.538
Engineering / Permitting / Construction (assume 20%)	\$ -	Max. Annual State-specific Incentives	\$ -		2016 \$7.726
Subtotal - Treatment System	\$ -	Revenue Stream Availability			2017 \$7.920
Power Generation Unit(s) ^{4/}		Expiration of Carbon Credit Availability	1/1/2021		2018 \$8.118
Genset Unit(s)	None	Expiration of REC Availability	1/1/2032		2019 \$8.321
Electrical Interconnection ^{5/}	\$ -	Expiration of Section 45 Tax Credit Availability	1/1/2021		2020 \$8.529
Genset and Accessories including switchgear	\$ -				
Engineering / Permitting / Construction (assume 50%)	\$ -	Annual Revenue Streams (\$/yr)	2011		
Subtotal Electric Generation Facilities	\$ -	Sale of Carbon Credits from gas collected	\$ 473,448		
O&M Costs	2011	Sale of RECs from Electricity Generated	\$ -		
Collection System (\$/year) ^{6/}	\$ 65,000	Value of Power Sales to Utility/Co-op	\$ -		
Electric Generation O&M Cost (\$/hr) ^{7/}	\$ -	Value of Section 45 Renewable Energy Tax Credit	\$ -		
Project Genset Availability	92%	Value of State Renewable Energy Tax Credit	\$ -		
Treatment System O&M (\$/year) ^{8/}	\$ -	Total Revenue Streams	2011	\$ 473,448	

NOTES

- ^{1/} Collection system is estimated to cost approximately \$25,000 per new well. Flare and LFG dryer costs are based on recent budgetary quotes.
- ^{2/} Ongoing collection system expansion is included on a recurring basis as Phases 2 and 3 are built out.
- ^{3/} Additional LFG treatment costs are excluded. LFG quality will be determined prior to project initiation.
- ^{5/} Electrical interconnection costs are assumed. A system impact study must be commissioned from the utility to confirm these costs.
- ^{4/} Electrical generation facilities capital costs are based on recent budgetary quotes. Engineering, permitting, and construction costs are assumed to be 50% of capital costs.
- ^{6/} Collection system operations and maintenance includes routine well field O&M, and non-routine repair/replacement costs. Genset O&M costs are not included.
- ^{7/} Genset O&M costs are based on budgetary quotes, conversations with genset suppliers, and system operators.
- ^{8/} Per Brad Huxter with Parker Hannifin, assume siloxane treatment system blower usage of 40 hp (29.84 kW) for 10 hours, and heater usage of 113 kW for 2 hours, and 168 kW for 6 hours per regeneration, for an assumed average 24-hour usage of 65kW.
- ^{9/} Renewable Energy Credit applied to 100% of electricity generated. Value is variable and will be determined through RFP process.
- ^{10/} Value of Electricity sold into grid based upon the utility's current published rate.
- ^{11/} Escalator percentages are assumed values to account for inflation and increases in consumer price indexes.
- ^{12/} Carbon credit value is estimated from recent market values for similar projects on a \$/tonne basis, and assumes the project is eligible under current CAR protocols available for download at <http://www.climateactionreserve.org/how-it-works

Economics of Generic LFG Flaring Project

Assumptions

System Availability	92%
Expiration of Carbon Credit Availability	1/1/2021
Expiration of REC Availability	1/1/2032
Expiration of Section 45 Credit Availability	1/1/2021

Financial Data

Effective Federal Tax Rate (%)	34.00%
Effective State Tax Rate (%)	6.90%
O&M Cost Escalator (%)	2.00%
Facility Cost Escalator	2.00%

Value of Power Sold to Grid

Value of Power Sold -2009 (\$/kWh)	\$0.0000
Electric Cost Escalator (% per year)	2.00%
Project Economic Basis for Taxes	Corporate

Energy Credits

Carbon Credit Value (\$/ton)	
Renewable Energy Credit - 2009 (\$/kWh)	\$0.0000
Section 45 Tax Credit (\$/kWh)	\$0.0110
REC, Carbon Credit, and Electric Value Escalator	2.00%

Genset Data	50.00%	60.00%	70.00%	80.00%	90.00%	100.00%
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0.0	0.0	0.0	0.0	0.0	0.0
0	0%	0%	0%	0%	0%	0%
0	\$0.000	0.00%	0.00%	0.00%	0.00%	\$0.000
0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Economic Summary (Model Outputs)		
Project Life (Years)	10	20
Project IRR	17.24%	16.55%
Payback (yrs)	5.6	5.6
NPV @ 5%	\$1,200,071	\$975,592
NPV @ 10%	\$575,692	\$469,339
NPV @ 15%	\$147,602	\$94,647
NPV @ 20%	(\$154,151)	(\$181,734)

Year	Landfill Gas Collected			Value of Carbon Credits			Electric Generation Fuel and Output							Power Sold to Progress Energy Grid			Renewable Energy Credit			
	LFG Collected (cfm)	Collected Methane in MMBtu/day	Available Collected Methane (MMBtu/hr)	C02 Collected after Reduction (metric tons/year)	Market Value of Carbon Credits (\$/metric ton of CO2)	Annual Value of Carbon Credits (\$/Year)	Number of Units Installed	Operating Capacity of Units Based upon Available Fuel	Gross Output of Units (kWh)	Net Output of Units (kWh)	Energy Input Required (MMBtu/hr)	Projected Yearly Run Hours (Hrs/yr)	Projected Fuel Usage (MMBtu/yr)	Remaining Fuel Available (MMBtu/yr)	Projected Net Electricity Generated (kW/year)	Generated Electricity (kWh)	Electric Sales Price into Progress Energy Grid (\$/kWh)	Projected Annual Revenues of Power Sales (\$/Year)	Renewable Energy Credit Unit Value (\$/kWh)	Renewable Energy Credit Total Value (\$/Year)
2010	0	0	0.0	0	\$6.663	\$0	0	0%	0	0	0.000	8,059	0	200,012	0	0	\$0.0000	\$0	\$0.0000	\$0
2011	832	546	22.8	69,328	\$6.829	\$473,448	0	0%	0	0.000	8,081	0	0	162,052	0	0	\$0.0000	\$0	\$0.0000	\$0
2012	676	444	18.5	56,325	\$7.000	\$394,260	0	0%	0	0.000	8,059	0	0	184,033	0	0	\$0.0000	\$0	\$0.0000	\$0
2013	768	504	21.0	63,965	\$7.175	\$458,932	0	0%	0	0.000	8,059	0	0	207,652	0	0	\$0.0000	\$0	\$0.0000	\$0
2014	866	569	23.7	72,174	\$7.354	\$530,776	0	0%	0	0.000	8,059	0	0	233,439	0	0	\$0.0000	\$0	\$0.0000	\$0
2015	971	638	26.6	80,915	\$7.538	\$609,938	0	0%	0	0.000	8,081	0	0	259,383	0	0	\$0.0000	\$0	\$0.0000	\$0
2016	1,082	711	29.6	90,154	\$7.726	\$696,571	0	0%	0	0.000	8,059	0	0	287,302	0	0	\$0.0000	\$0	\$0.0000	\$0
2017	1,199	787	32.8	99,858	\$7.920	\$790,836	0	0%	0	0.000	8,059	0	0	316,469	0	0	\$0.0000	\$0	\$0.0000	\$0
2018	1,320	867	36.1	109,995	\$8.118	\$892,900	0	0%	0	0.000	8,059	0	0	347,750	0	0	\$0.0000	\$0	\$0.0000	\$0
2019	1,447	950	39.6	120,538	\$8.321	\$1,002,938	0	0%	0	0.000	8,081	0	0	378,215	0	0	\$0.0000	\$0	\$0.0000	\$0
2020	1,578	1,036	43.2	131,456	\$8.529	\$1,121,135	0	0%	0	0.000	8,059	0	0	410,639	0	0	\$0.0000	\$0	\$0.0000	\$0
2021	1,713	1,125	46.9	142,726	\$0.000	\$0	0	0%	0	0.000	8,059	0	0	421,760	0	0	\$0.0000	\$0	\$0.0000	\$0
2022	1,760	1,156	48.1	146,592	\$0.000	\$0	0	0%	0	0.000	8,059	0	0	406,333	0	0	\$0.0000	\$0	\$0.0000	\$0
2023	1,691	1,110	46.3	140,844	\$0.000	\$0	0	0%	0	0.000	8,081	0	0	389,334	0	0	\$0.0000	\$0	\$0.0000	\$0
2024	1,624	1,067	44.4	135,321	\$0.000	\$0	0	0%	0	0.000	8,059	0	0	374,068	0	0	\$0.0000	\$0	\$0.0000	\$0
2025	1,561	1,025	42.7	130,015	\$0.000	\$0	0	0%	0	0.000	8,059	0	0	359,400	0	0	\$0.0000	\$0	\$0.0000	\$0
2026	1,500	985	41.0	124,917	\$0.000	\$0	0	0%	0	0.000	8,059	0	0	346,254	0	0	\$0.0000	\$0	\$0.0000	\$0
2027	1,441	946	39.4	120,019	\$0.000	\$0	0	0%	0	0.000	8,081	0	0	331,768	0	0	\$0.0000	\$0	\$0.0000	\$0
2028	1,384	909	37.9	115,313	\$0.000	\$0	0	0%	0	0.000	8,059	0	0	318,760	0	0	\$0.0000	\$0	\$0.0000	\$0
2029	1,330	873	36.4	110,792	\$0.000	\$0	0	0%	0	0.000	8,059	0	0	306,261	0	0	\$0.0000	\$0	\$0.0000	\$0
2030	1,278	839	35.0	106,447	\$0.000	\$0	0	0%	0	0.000	8,059	0	0				\$0.0000	\$0	\$0.0000	\$0
Total				2,167,693		\$6,971,735														\$0

Year	Facility and Operating Costs							Financial Data											
	Collection System, Processing and Treating Equipment Investment Stream (\$/Year)	Collection System Power Consumption (\$/Year)	Treating System Power Consumption (\$/Year)	Collection & Treating System - Annual O&M Costs (\$/Year)	Electricity Generation Facility Equipment Investment Stream (\$/Year)	Operating Costs of Electrical Equipment (\$/hr/unit)	Annual Operating Costs of Genset Equipment (\$)	Earnings before Taxes, Int. and Dep. (\$/Year)	Taxable Income (\$/Year)	GDS (MACRS) 15-Year Depreciation Schedule - Half Year Convention	Tax Depr. (\$/Year)	Federal Income Taxes (\$/Year)	State Income Taxes (\$/Year)	Georgia Renewable Energy Tax Credit (Placeholder) (\$/Year)	Unit Value of Section 45 Tax Credit (\$/kWh)	Annual Value of Section 45 Tax Credit (\$/Year)	After Tax Cash Flow (\$/Year)	Cumulative After Tax Cash Flow (\$)	Payback
2010	(\$1,320,000)	(\$29,407)	\$0	(\$66,300)	\$0	\$0.00	\$0	\$1,349,407	\$377,071	5.00%	\$66,000	\$105,764	\$14,166	\$0	\$0.0110	\$0	(\$1,349,407)	(\$1,349,407)	
2011	(\$51,000)	(\$30,078)	\$0	(\$67,626)	\$0	\$0.00	\$0	\$244,019	\$296,039	9.50%	\$127,950	\$57,150	\$7,655	\$0	\$0.0112	\$0	\$206,140	(\$1,143,267)	
2012	(\$52,020)	(\$30,595)	\$0	(\$67,626)	\$0	\$0.00	\$0	\$305,686	\$358,746	8.55%	\$120,306	\$81,070	\$10,859	\$0	\$0.0114	\$0	\$179,214	(\$964,053)	
2013	(\$53,060)	(\$31,207)	\$0	(\$68,979)	\$0	\$0.00	\$0	\$374,465	\$428,586	7.70%	\$113,595	\$107,097	\$14,345	\$0	\$0.0117	\$0	\$213,758	(\$750,295)	
2014	(\$54,122)	(\$31,831)	\$0	(\$70,358)	\$0	\$0.00	\$0	\$450,412	\$505,616	6.93%	\$107,598	\$135,326	\$18,126	\$0	\$0.0119	\$0	\$253,023	(\$497,272)	
2015	(\$55,204)	(\$32,557)	\$0	(\$71,765)	\$0	\$0.00	\$0	\$533,945	\$590,253	6.23%	\$102,214	\$165,933	\$22,225	\$0	\$0.0121	\$0	\$296,960	(\$200,312)	5.579
2016	(\$56,308)	(\$33,117)	\$0	(\$73,201)	\$0	\$0.00	\$0	\$624,957	\$682,392	5.90%	\$101,435	\$197,525	\$26,457	\$0	\$0.0124	\$0	\$345,787	\$145,474	
2017	(\$57,434)	(\$33,780)	\$0	(\$74,665)	\$0	\$0.00	\$0	\$723,704	\$782,287	5.90%	\$104,915	\$230,306	\$30,847	\$0	\$0.0126	\$0	\$400,975	\$546,450	
2018	(\$58,583)	(\$34,455)	\$0	(\$76,158)	\$0	\$0.00	\$0	\$830,262	\$890,017	5.91%	\$108,597	\$265,683	\$35,586	\$0	\$0.0129	\$0	\$462,550	\$1,009,000	
2019	(\$59,755)	(\$35,241)	\$0	(\$77,681)	\$0	\$0.00	\$0	\$945,103	\$1,006,053	5.90%	\$112,091	\$303,947	\$40,711	\$0	\$0.0131	\$0	\$528,994	\$1,537,993	
2020	(\$60,950)	(\$35,847)	\$0	(\$79,235)	\$0	\$0.00	\$0	(\$117,384)	(\$117,384)	5.91%	\$115,916	(\$79,322)	(\$10,624)	\$0	\$0.0134	\$0	\$600,445	\$2,138,438	
2021	\$0	(\$36,564)	\$0	(\$80,819)	\$0	\$0.00	\$0	(\$119,731)	(\$119,731)	5.90%	\$116,448	(\$80,301)	(\$10,756)	\$0	\$0.0000	\$0	(\$27,437)	\$2,111,001	
2022	\$0	(\$37,296)	\$0	(\$82,436)	\$0	\$0.00	\$0	(\$122,230)	(\$122,230)	5.91%	\$114,454	(\$80,473)	(\$10,779)	\$0	\$0.0000	\$0	(\$28,675)	\$2,082,326	
2023	\$0	(\$38,146)	\$0	(\$84,084)	\$0	\$0.00	\$0	(\$124,568)	(\$124,568)	5.90%	\$112,750	(\$80,688)	(\$10,807)	\$0	\$0.0000	\$0	(\$30,979)	\$2,051,347	
2024	\$0	(\$38,802)	\$0	(\$85,766)	\$0	\$0.00	\$0	(\$127,060)	(\$127,060)	5.91%	\$111,801	(\$81,213)	(\$10,878)	\$0	\$0.0000	\$0	(\$33,073)	\$2,018,274	
2025	\$0	(\$39,578)	\$0	(\$87,481)	\$0	\$0.00	\$0	(\$129,601)	(\$129,601)	2.95%	\$72,111	(\$68,582)	(\$9,186)	\$0	\$0.0000	\$0	(\$34,969)	\$1,983,305	
2026	\$0	(\$40,370)	\$0	(\$89,231)	\$0	\$0.00	\$0	(\$132,306)	(\$132,306)		\$31,465	(\$55,682)	(\$7,458)	\$0	\$0.0000	\$0	(\$51,833)	\$1,931,471	
2027	\$0	(\$41,290)	\$0	(\$91,016)	\$0	\$0.00	\$0	(\$134,837)	(\$134,837)		\$28,427	(\$55,510)	(\$7,435)	\$0	\$0.0000	\$0	(\$69,166)	\$1,862,306	
2028	\$0	(\$42,001)	\$0	(\$92,836)	\$0	\$0.00	\$0	(\$137,534)	(\$137,534)		\$25,327	(\$55,373)	(\$7,417)	\$0	\$0.0000	\$0	(\$71,892)	\$1,790,414	
2029	\$0	(\$42,841)	\$0	(\$94,693)	\$0	\$0.00	\$0	(\$140,284)	(\$140,284)		\$22,160	(\$55,231)	(\$7,398)	\$0	\$0.0000	\$0	(\$74,744)	\$1,715,669	
2030	\$0	(\$43,698)	\$0	(\$96,587)	\$0	\$0.00	\$0										(\$77,656)	\$1,638,014	
Total	(\$1,878,436)	(\$758,703)	\$0	(\$1,610,916)	\$0	\$0	\$0	\$2,723,681			\$1,815,559	\$957,428					\$1,638,014		5.579

Generic Landfill Gas Generation Estimate

Assumptions:

input cells

Average Collection Rates =

76%

(Active Phases)

CH4=

50%

Btu/cf (LHV) =

456

Collection Rates =

85%

(Closed Phases)

Carbon C

Year	Phase 1				Phases 2-3				All Phases			
	Generated LFG (cf/yr)	Generated LFG (cfm)	Collected LFG (cfm)	Collection Efficiency	Generated LFG (cf/yr)	Generated LFG (cfm)	Collected LFG (cfm)	Collection Efficiency	Generated LFG (cf/yr)	Generated LFG (cfm)	Collected LFG (cfm)	Collection Efficiency
1994	0	0	0	0.00%	0	0	0	0.00%	0	0	0	#DIV/0!
1995	5,927,367	11	0	0.00%	0	0	0	0.00%	5,927,367	11	0	0.00%
1996	10,301,148	20	0	0.00%	0	0	0	0.00%	10,301,148	20	0	0.00%
1997	9,907,224	19	0	0.00%	0	0	0	0.00%	9,907,224	19	0	0.00%
1998	9,525,972	18	0	0.00%	0	0	0	0.00%	9,525,972	18	0	0.00%
1999	9,160,500	17	0	0.00%	0	0	0	0.00%	9,160,500	17	0	0.00%
2000	8,810,469	17	0	0.00%	0	0	0	0.00%	8,810,469	17	0	0.00%
2001	8,471,111	16	0	0.00%	0	0	0	0.00%	8,471,111	16	0	0.00%
2002	8,151,164	16	0	0.00%	0	0	0	0.00%	8,151,164	16	0	0.00%
2003	63,072,613	120	0	0.00%	0	0	0	0.00%	63,072,613	120	0	0.00%
2004	121,376,379	231	0	0.00%	0	0	0	0.00%	121,376,379	231	0	0.00%
2005	171,399,222	326	0	0.00%	0	0	0	0.00%	171,399,222	326	0	0.00%
2006	164,678,562	313	0	0.00%	66,240,646	126	0	0.00%	230,919,208	439	0	0.00%
2007	158,221,423	301	0	0.00%	138,069,910	263	0	0.00%	296,291,334	564	0	0.00%
2008	152,017,472	289	0	0.00%	215,904,133	411	0	0.00%	367,921,605	700	0	0.00%
2009	146,056,782	278	0	0.00%	288,734,793	549	0	0.00%	434,791,575	827	0	0.00%
2010	140,329,814	267	0	0.00%	358,709,722	682	0	0.00%	499,039,535	949	0	0.00%
2011	134,827,403	257	218	85.00%	425,940,894	810	614	75.79%	560,768,297	1067	832	78.00%
2012	129,540,745	246	209	85.00%	490,535,895	933	467	50.00%	620,076,640	1180	676	57.31%
2013	124,461,380	237	201	85.00%	552,598,089	1051	567	53.89%	677,059,469	1288	768	59.61%
2014	119,581,179	228	193	85.00%	612,226,790	1165	673	57.78%	731,807,970	1392	866	62.23%
2015	114,892,334	219	186	85.00%	669,517,417	1274	786	61.67%	784,409,751	1492	971	65.08%
2016	110,387,341	210	179	85.00%	724,561,645	1379	904	65.56%	834,948,986	1589	1082	68.13%
2017	106,058,992	202	172	85.00%	777,447,559	1479	1027	69.45%	883,506,550	1681	1199	71.31%
2018	101,900,359	194	165	85.00%	828,259,786	1576	1156	73.33%	930,160,145	1770	1320	74.61%
2019	97,904,789	186	158	85.00%	877,079,637	1669	1289	77.22%	974,984,426	1855	1447	78.00%
2020	94,065,887	179	152	85.00%	923,985,235	1758	1426	81.11%	1,018,051,122	1937	1578	81.47%
2021	90,377,511	172	146	85.00%	969,051,638	1844	1567	85.00%	1,059,429,149	2016	1713	85.00%
2022	86,833,758	165	140	85.00%	1,001,287,547	1905	1619	85.00%	1,088,121,305	2070	1760	85.00%
2023	83,428,958	159	135	85.00%	962,026,501	1830	1556	85.00%	1,045,455,459	1989	1691	85.00%
2024	80,157,662	153	130	85.00%	924,304,902	1759	1495	85.00%	1,004,462,564	1911	1624	85.00%
2025	77,014,635	147	125	85.00%	888,062,389	1690	1436	85.00%	965,077,023	1836	1561	85.00%
2026	73,994,848	141	120	85.00%	853,240,964	1623	1380	85.00%	927,235,812	1764	1500	85.00%
2027	71,093,468	135	115	85.00%	819,784,908	1560	1326	85.00%	890,878,376	1695	1441	85.00%
2028	68,305,853	130	110	85.00%	787,640,682	1499	1274	85.00%	855,946,535	1629	1384	85.00%
2029	65,627,543	125	106	85.00%	756,756,849	1440	1224	85.00%	822,384,391	1565	1330	85.00%
2030	63,054,250	120	102	85.00%	727,083,988	1383	1176	85.00%	790,138,238	1503	1278	85.00%
2031	60,581,857	115	98	85.00%	698,574,617	1329	1130	85.00%	759,156,475	1444	1228	85.00%
2032	58,206,409	111	94	85.00%	671,183,115	1277	1085	85.00%	729,389,523	1388	1180	85.00%
2033	55,924,103	106	90	85.00%	644,865,648	1227	1043	85.00%	700,789,751	1333	1133	85.00%
2034	53,731,287	102	87	85.00%	619,580,105	1179	1002	85.00%	673,311,392	1281	1089	85.00%
2035	51,624,453	98	83	85.00%	595,286,021	1133	963	85.00%	646,910,475	1231	1046	85.00%
2036	49,600,230	94	80	85.00%	571,944,523	1088	925	85.00%	621,544,752	1183	1005	85.00%
2037	47,655,377	91	77	85.00%	549,518,257	1046	889	85.00%	597,173,634	1136	966	85.00%
2038	45,786,783	87	74	85.00%	527,971,338	1005	854	85.00%	573,758,121	1092	928	85.00%
2039	43,991,457	84	71	85.00%	507,269,286	965	820	85.00%	551,260,743	1049	892	85.00%
2040	42,266,528	80	68	85.00%	487,378,972	927	788	85.00%	529,645,500	1008	857	85.00%
2041	40,609,233	77	66	85.00%	468,268,570	891	757	85.00%	508,877,803	968	823	85.00%
2042	39,016,923	74	63	85.00%	449,907,496	856	728	85.00%	488,924,419	930	791	85.00%
2043	37,487,047	71	61	85.00%	432,266,371	822	699	85.00%	469,753,418	894	760	85.00%
2044	36,017,159	69	58	85.00%	415,316,964	790	672	85.00%	451,334,123	859	730	85.00%
2045	34,604,906	66	56	85.00%	399,032,153	759	645	85.00%	433,637,059	825	701	85.00%
2046	33,248,028	63	54	85.00%	383,385,879	729	620	85.00%	416,633,907	793	674	85.00%
2047	31,944,354	61	52	85.00%	368,353,103	701	596	85.00%	400,297,458	762	647	85.00%
2048	30,691,798	58	50	85.00%	353,909,772	673	572	85.00%	384,601,570	732	622	85.00%
2049	29,488,356	56	48	85.00%	340,032,771	647	550	85.00%	369,521,127	703	598	85.00%
2050	28,332,101	54	46	85.00%	326,699,895	622	528	85.00%	355,031,996	675	574	85.00%
2051	27,221,183	52	44	85.00%	313,889,809	597	508	85.00%	341,110,992	649	552	85.00%
2052	26,153,825	50	42	85.00%	301,582,014	574	488	85.00%	327,735,839	624	530	85.00%
2053	25,128,319	48	41	85.00%	289,756,814	551	469	85.00%	314,885,133	599	509	85.00%
2054	24,143,024	46	39	85.00%	278,395,287	530	450	85.00%	302,538,310	576	489	85.00%
2055	23,196,362	44	38	85.00%	267,479,251	509	433	85.00%	290,675,613	553	470	85.00%
2056	22,286,820	42	36	85.00%	256,991,240	489	416	85.00%	279,278,060	531	452	85.00%
2057	21,412,941	41	35	85.00%	246,914,469	470	399	85.00%	268,327,410	511	434	85.00%
2058	20,573,328	39	33	85.00%	237,232,814	451	384	85.00%	257,806,142	490	417	85.00%
2059	19,766,636	38	32	85.00%	227,930,783	434	369	85.00%	247,697,419	471	401	85.00%
2060	18,991,575	36	31	85.00%	218,993,489	417	354	85.00%	237,985,064	453	385	85.00%
2061	18,246,905	35	30	85.00%	210,406,631	400	340	85.00%	228,653,536	435	370	85.00%
2062	17,531,433	33	28	85.00%	202,156,469	385	327	85.00%	219,687,903	418	355	85.00%
2063	16,844,016	32	27	85.00%	194,229,801	370	314	85.00%	211,073,817	402	341	85.00%
2064	16,183,553	31	26	85.00%	186,613,941	355	302	85.00%	202,797,494	386	328	85.00%
2065	15,548,987	30	25	85.00%	179,296,704	341	290	85.00%	194,845,691	371	315	85.00%
2066	14,939,302	28	24	85.00%	172,266,380	328	279	85.00%	187,205,682	356	303	85.00%
2067	14,353,524	27	23	85.00%	165,511,718	315	268	85.00%	179,865,242	342	291	85.00%
2068	13,790,714	26	22	85.00%	159,021,911	303	257	85.00%	172,812,625	329	279	85.00%
2069	13,249,972	25	21	85.00%	152,786,573	291	247	85.00%	166,036,545	316	269	85.00%
2070	12,730,433	24	21	85.00%	146,795,726	279	237	85.00%	159,526,159	304	258	85.00%
2071	12,231,266	23	20	85.00%	141,039,783	268	228	85.00%	153,271,049	292	248	85.00%
2072	11,751,671	22	19	85.00%	135,509,534	258	219	85.00%	147,261,205	280	238	85.00%
2073	11,290,882	21	18	85.00%	130,196,129	248	211	85.00%	141,487,011	269	229	85.00%
2074	10,848,160	21	18	85.00%	125,091,066	238	202	85.00%	135,939,226	259	220	85.00%
2075	10,422,797	20	17	85.00%	120,186,175	229	194	85.00%	130,608,972	248	211	85.00%
2076	10,014,114	19	16	85.00%	115,473,608	220	187	85.00%	125,487,721	239	203	85.00%
2077	9,621,455	18	16	85.00%	110,945,823	211	179	85.00%	120,567,277	229	195	85.00%
2078	9,244,192	18	15	85.00%	106,595,575	203	172	85.00%	115,839,767	220	187	85.00%
2079	8,881,722	17	14	85.00%	102,415,902	195	166	85.00%	111,297,625	212	180</	

Generic Landfill Gas Generation Estimate

Assumptions: input cells

Average Collection Rates = 76% (Active Phases)

CH4= 50% Btu/cf (LHV) = 456

Collection Rates = 85% (Closed Phases)

Carbon C

Year	Phase 1				Phases 2-3				All Phases			
	Generated LFG (cf/yr)	Generated LFG (cfm)	Collected LFG (cfm)	Collection Efficiency	Generated LFG (cf/yr)	Generated LFG (cfm)	Collected LFG (cfm)	Collection Efficiency	Generated LFG (cf/yr)	Generated LFG (cfm)	Collected LFG (cfm)	Collection Efficiency
2081	8,198,863	16	13	85.00%	94,541,794	180	153	85.00%	102,740,657	195	166	85.00%
2082	7,877,381	15	13	85.00%	90,834,757	173	147	85.00%	98,712,138	188	160	85.00%
2083	7,568,504	14	12	85.00%	87,273,075	166	141	85.00%	94,841,579	180	153	85.00%
2084	7,271,739	14	12	85.00%	83,851,049	160	136	85.00%	91,122,788	173	147	85.00%
2085	6,986,610	13	11	85.00%	80,563,202	153	130	85.00%	87,549,812	167	142	85.00%
2086	6,712,661	13	11	85.00%	77,404,274	147	125	85.00%	84,116,935	160	136	85.00%
2087	6,449,454	12	10	85.00%	74,369,209	141	120	85.00%	80,818,663	154	131	85.00%
2088	6,196,567	12	10	85.00%	71,453,151	136	116	85.00%	77,649,718	148	126	85.00%
2089	5,953,596	11	10	85.00%	68,651,432	131	111	85.00%	74,605,029	142	121	85.00%
2090	5,720,152	11	9	85.00%	65,959,571	125	107	85.00%	71,679,724	136	116	85.00%
2091	5,495,862	10	9	85.00%	63,373,260	121	102	85.00%	68,869,122	131	111	85.00%
2092	5,280,366	10	9	85.00%	60,888,358	116	98	85.00%	66,168,725	126	107	85.00%
2093	5,073,320	10	8	85.00%	58,500,892	111	95	85.00%	63,574,212	121	103	85.00%
2094	4,874,392	9	8	85.00%	56,207,039	107	91	85.00%	61,081,431	116	99	85.00%
2095	4,683,265	9	8	85.00%	54,003,129	103	87	85.00%	58,686,394	112	95	85.00%
2096	4,499,631	9	7	85.00%	51,885,636	99	84	85.00%	56,385,268	107	91	85.00%
2097	4,323,198	8	7	85.00%	49,851,172	95	81	85.00%	54,174,370	103	88	85.00%
2098	4,153,683	8	7	85.00%	47,896,479	91	77	85.00%	52,050,162	99	84	85.00%
2099	3,990,815	8	6	85.00%	46,018,431	88	74	85.00%	50,009,246	95	81	85.00%