

APPENDIX 5
RNG BMS
ECONOMIC FEASIBILITY

RNG BMS
Economic Feasibility
Parameters and Results

<u>Line No.</u>	<u>Col. 1</u> Description	<u>Col. 2</u>
FEASIBILITY PARAMETERS		
1.	Discount Rate	5.43%
2.	CCA Rate - Biogas Upgrading Plant	
3.	Energy components	50.00%
4.	Non- Energy components	20.00%
5.	Buildings components	4.00%
6.	Income Tax Rate	26.50%
7.	Customer Revenue Horizon (Years)	20
8.	Capital Investment (Dollars)	
9.	Biogas Conditioning and Upgrading Plant Capital	7,419,759
10.	Working Capital (Days of Revenue)	30
FEASIBILITY RESULTS		
11.	Net Present Value (Dollars)	733,495
12.	Profitability Index	1.10

RNG BMS
Economic Feasibility - 20 year Horizon
DCF Analysis

Line No.	Description	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12
	Discount factors to project outset	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
		0.9739	0.9237	0.8762	0.8310	0.7882	0.7476	0.7091	0.6726	0.6379	0.6051	0.5739	
	INCREMENTAL CAPITAL INVESTMENT												
1.	Biogas Conditioning and Upgrading Plant	(7,419,759)	-	-	-	-	-	-	-	-	-	-	-
2.	Contribution In Aid Of Construction	(7,419,759)	-	-	-	-	-	-	-	-	-	-	-
3.	Net Investment Capital	-	-	-	-	-	-	-	-	-	-	-	-
4.	Working Capital	-	(106,750)	-	-	-	-	-	-	-	-	-	-
5.	Total Investment	(7,419,759)	(106,750)	-	-	-	-	-	-	-	-	-	-
6.	PV Of Total Investment At Project Outset	(7,226,130)	(98,609)	-	-	-	-	-	-	-	-	-	-
7.	ACCUMULATED PV OF TOTAL INVESTMENT	(7,226,130)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)
	CCA TAX SHIELD												
8.	CCA Tax Shield	-	414,990	632,014	333,302	180,763	101,938	60,469	38,080	25,562	18,211	13,671	
9.	PV Of CCA Tax Shield At Project Outset	-	383,341	553,741	276,981	142,480	76,210	42,879	25,612	16,300	11,019	7,846	
10.	ACCUMULATED PV OF CCA TAX SHIELD	-	383,341	937,083	1,214,063	1,356,544	1,432,754	1,475,632	1,501,244	1,517,544	1,528,564	1,536,409	
	INCREMENTAL OPERATING CASHFLOWS (BEFORE TAXES)												
11.	Biogas Conditioning and Upgrading Service Revenues	-	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000
12.	O&M Expenses	-	(448,800)	(457,776)	(466,932)	(476,270)	(485,796)	(495,511)	(505,422)	(515,530)	(525,841)	(536,358)	
13.	Net Operating Cash (Before Taxes)	-	832,200	823,224	814,068	804,730	795,204	785,489	775,578	765,470	755,159	744,642	
14.	PV Of Net Operating Cash (Before Taxes) At Project Outset	-	768,733	721,270	676,508	634,239	594,504	556,991	521,634	488,315	456,923	427,350	
15.	ACCUMULATED PV OF NET OPERATING CASH (BEFORE TAXES)	-	768,733	1,490,004	2,166,512	2,800,811	3,395,316	3,952,306	4,473,940	4,962,256	5,419,178	5,846,529	
	TAXES												
16.	Income Tax (Before Interest Tax Shield)	-	(220,533)	(218,154)	(215,728)	(213,253)	(210,729)	(208,154)	(205,528)	(202,850)	(200,117)	(197,330)	
17.	Municipal Tax	-	(220,533)	(218,154)	(215,728)	(213,253)	(210,729)	(208,154)	(205,528)	(202,850)	(200,117)	(197,330)	
18.	Total Taxes	-	(441,066)	(436,308)	(431,456)	(426,506)	(421,458)	(416,308)	(411,056)	(405,700)	(400,234)	(394,660)	
19.	PV of Total Taxes At Project Outset	-	(203,714)	(191,137)	(179,275)	(168,089)	(157,544)	(147,603)	(138,233)	(129,404)	(121,085)	(113,248)	
20.	ACCUMULATED PV OF TOTAL TAXES	-	(203,714)	(394,851)	(574,126)	(742,215)	(899,759)	(1,047,361)	(1,185,594)	(1,314,998)	(1,436,082)	(1,549,330)	
	ACCUMULATED NPV AND PI												
21.	Net Present Value	(7,226,130)	(6,376,379)	(5,292,504)	(4,518,290)	(3,909,599)	(3,396,429)	(2,944,162)	(2,535,149)	(2,159,937)	(1,813,080)	(1,491,131)	
22.	Profitability Index	0.000	0.129	0.277	0.383	0.466	0.536	0.598	0.654	0.705	0.752	0.796	

RNG BMS
Economic Feasibility - 20 year Horizon
DCF Analysis

Line No.	Description	Col. 13 Year 11	Col. 14 Year 12	Col. 15 Year 13	Col. 16 Year 14	Col. 17 Year 15	Col. 18 Year 16	Col. 19 Year 17	Col. 20 Year 18	Col. 21 Year 19	Col. 22 Year 20
	Discount factors to project outset	0.5443	0.5163	0.4897	0.4645	0.4406	0.4179	0.3963	0.3759	0.3566	0.3382
	INCREMENTAL CAPITAL INVESTMENT										
1.	Biogas Conditioning and Upgrading Plant	-	-	-	-	-	-	-	-	-	-
2.	Contribution in Aid Of Construction	-	-	-	-	-	-	-	-	-	-
3.	Net Investment Capital	-	-	-	-	-	-	-	-	-	-
4.	Working Capital	-	-	-	-	-	-	-	-	-	-
5.	Total Investment	-	-	-	-	-	-	-	-	-	-
6.	PV Of Total Investment At Project Outset	-	-	-	-	-	-	-	-	-	-
7.	ACCUMULATED PV OF TOTAL INVESTMENT	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)	(7,324,739)
	CCA TAX SHIELD										
8.	CCA Tax Shield	10,686	8,636	7,141	6,013	5,137	4,443	3,884	3,429	3,054	24,068
9.	PV Of CCA Tax Shield At Project Outset	5,822	4,469	3,487	2,793	2,263	1,857	1,539	1,289	1,089	8,140
10.	ACCUMULATED PV OF CCA TAX SHIELD	1,542,231	1,546,690	1,550,187	1,552,980	1,555,243	1,557,100	1,558,639	1,559,928	1,561,017	1,569,156
	INCREMENTAL OPERATING CASHFLOWS (BEFORE TAXES)										
11.	Biogas Conditioning and Upgrading Service Revenues	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000	1,281,000
12.	O&M Expenses	(547,065)	(558,026)	(569,187)	(580,571)	(592,182)	(604,026)	(616,106)	(628,428)	(640,997)	(653,817)
13.	Net Operating Cash (Before Taxes)	733,915	722,974	711,813	700,429	688,818	676,974	664,894	652,572	640,003	627,183
14.	PV Of Net Operating Cash (Before Taxes) At Project Outset	399,498	373,270	348,577	325,333	303,460	282,879	263,520	245,313	228,195	212,105
15.	ACCUMULATED PV OF NET OPERATING CASH (BEFORE TAXES)	6,246,027	6,619,296	6,967,873	7,293,207	7,596,666	7,879,545	8,143,065	8,388,378	8,616,573	8,828,678
	TAXES										
16.	Income Tax (Before Interest Tax Shield)	(194,488)	(191,588)	(188,630)	(185,614)	(182,537)	(179,398)	(176,197)	(172,931)	(169,601)	(166,204)
17.	Municipal Tax	-	-	-	-	-	-	-	-	-	-
18.	Total Taxes	(194,488)	(191,588)	(188,630)	(185,614)	(182,537)	(179,398)	(176,197)	(172,931)	(169,601)	(166,204)
19.	PV of Total Taxes At Project Outset	(105,867)	(98,916)	(92,373)	(86,213)	(80,417)	(74,963)	(69,833)	(65,008)	(60,472)	(56,208)
20.	ACCUMULATED PV OF TOTAL TAXES	(1,655,197)	(1,754,114)	(1,846,486)	(1,932,700)	(2,013,117)	(2,088,079)	(2,157,912)	(2,222,920)	(2,283,392)	(2,339,600)
	ACCUMULATED NPV AND PI										
21.	Net Present Value	(1,191,678)	(912,866)	(653,165)	(411,253)	(185,947)	23,826	219,052	400,646	569,459	733,495
22.	Profitability Index	0.837	0.875	0.911	0.944	0.975	1.003	1.030	1.055	1.078	1.100