



County of Santa Cruz

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DEPARTMENT OF PUBLIC WORKS

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THOMAS L. BOLICH
DIRECTOR OF PUBLIC WORKS

AGENDA: FEBRUARY 13, 2001

February 1, 2001

SANTA CRUZ COUNTY BOARD OF SUPERVISORS

701 Ocean Street

Santa Cruz, California 95060

SUBJECT: BUENA VISTA LANDFILL GAS POWER PROJECT

Members of the Board:

On January 9, 2001, your Board directed Public Works to return on or before February 13, 2001, with final recommendations on the Buena Vista Landfill Gas Power Project. After many months of discussion and review of various proposals, we have come to agreement on the essential terms and conditions that will form the basis of a long term contract. Attached you will find a Letter of Intent from Brown, Vence and Associates, LFG Corporation, Inc. (BVA LFG) outlining the agreed upon terms and conditions. At this time we are recommending that your Board authorize the Director of Public Works to sign the attached Letter of Intent on behalf of the County and direct Public Works to immediately begin negotiations with BVA LFG on a long term agreement.

Last year your Board also approved an agreement with Dr. Dean Tibbs of Advanced Energy Strategies, who has been assisting the County in review and development of project terms and conditions, and analysis of project economics. Attached you will find his assessment of the project and recommendation to move forward expeditiously with contract negotiations. Both Public Works and Dr. Tibbs agree that this is a very worthwhile project, especially in light of the current and projected future energy prices. As a financial partner in the project, the County would provide \$1.5 million in project **funding** to be repaid from project revenues at a 6.5% interest rate. Under a reasonable set of assumptions developed by Dr. Tibbs, he conservatively estimated the net present value of the project at approximately \$7 million, of which the County would receive a risk apportioned share as a financial partner. The County would also be reimbursed approximately \$30,000 per year to operate the landfill gas collection system and deliver gas to the project,

Management of landfill gas is mandated under state and federal law. Several hundred million cubic feet of methane is burned annually through our flare system with the resulting energy value being released into the atmosphere as heat. The landfill methane we burn has a high

value, and using this gas as a resource for higher and better purposes is the basis for this project proposal. Public Works' primary development objectives have been to create a project that could be accomplished without additional expenditure and where financial risks are minimized. It is Public Works' opinion that the terms and conditions outlined in the attached Letter of Intent meet both these basic criteria.

As an additional point, in 1999 we informed your Board that we had been successful in securing a \$750,000 grant from the California Energy Commission to support development of renewable energy sources such as landfill gas. In order to receive the full amount of this grant, our generating facilities must be online by January 1, 2002. The grant deadline, in combination with the current energy markets that strongly favor projects such as this, warrants expeditious action.

It is therefore recommended that your Board take the following actions:

1. Authorize the Director of Public Works to sign the attached Letter of Intent with Brown, Vence and Associates LFG, Inc. (BVA LFG) for development of a landfill gas power project at the Buena Vista Landfill.
2. Direct Public Works to negotiate an Electrical Generating Facilities Leasing Agreement with BVA LFG based upon the terms and conditions outlined in the Letter of Intent and take all necessary actions to expedite final project development.
3. Direct Public Works to return on or before May 1, 2001, with a final report and the required agreements to implement the project.

Yours truly,



THOMAS L. BOLICH

Director of Public Works

RPM: bbs

Attachments

RECOMMENDED FOR APPROVAL:



County Administrative Officer

copy to: Brown, Vence and Associates (w/a)
Dr. Dean Tibbs (w/a)
Public Works Department

LETTER OF INTENT (LOI)

The following summarizes the terms upon which Santa Cruz County, California (County) and Brown, Vence & Associates LFG Corporation, Inc. (BVA LFG) have agreed and will serve as the basis to the commencement of an Electrical Generation Facility Leasing Agreement (EGFLA). The LOI will be in effect for three (3) months from execution of both parties.

1. County desires to pursue a project to recover landfill gas from its solid waste landfill (Buena Vista Landfill) and use it as fuel to generate electricity.
2. County agrees that during the effective term of the LOI, it shall not contact or negotiate with or engage in any discussions or activities with any third party for the study and/or evaluation of a landfill gas to electricity system other than with BVA LFG.
3. The LOI anticipates the eventual signing of an EGFLA for BVA LFG to design, build, operate and manage the landfill gas to electricity generating facility (Facility) for a minimum of fifteen (15) years from start-up of the system.
4. It is anticipated that, subject to mutual agreement, the EGFLA will contain the following provisions:
 - (i) BVA LFG will construct, operate and maintain the Facility;
 - (ii) BVA LFG will manage the production of electricity from the Facility and arrange for the sale of electricity to third parties.
5. The County or its agent shall provide the necessary personnel to coordinate project activities with BVA LFG and provide all relevant technical, operational, commercial and other data and information.
6. All contract terms regarding confidentiality, indemnification, subrogation and liability shall be equal and reciprocal between the County and BVA LFG.
7. BVA LFG shall be considered an independent contractor and, as such, shall be responsible for maintaining Worker's Compensation Insurance and Comprehensive Commercial General Liability Insurance for bodily injury and property damage.
8. Final terms and conditions are subject to the approval of BVA LFG's Management Committee and the Santa Cruz County Board of Supervisors.

Planning Assumptions

The following list of planning assumptions constitutes the basis for BVA LFG's proposal to construct, operate and maintain the landfill gas to electricity system:

General

- The County shall provide BVA LFG the land to build the Facility and full access on a 24 hour per day, 7-day per week basis.

- BVA LFG will provide turnkey engineering, design, procurement, construction, start-up, testing and management of the Facility.
- BVA LFG will assume responsibility for Facility operational costs.
- BVA LFG is to provide applicable insurance and administrative overhead for the Facility.
- The County will retain ownership of the electricity generation assets and lease the assets to BVA for the term of the EGFLA.
- The County will provide \$1.5 million in project financing which will be repaid over the term of the EGFLA at 6.5% interest and terms to be negotiated.
- The County will share in project revenues based on terms agreed to by the County and BVA LFG.

Environmental

- The Facility will be designed to meet current emissions and other federal, state, and local regulatory requirements.

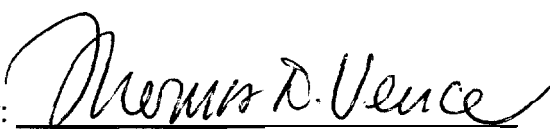
This LOI is subject to the following conditions:

- Verification of the availability of sufficient quantities and quality of landfill gas;
- Review and verification of existing program documents;
- Ability to transfer permits to BVA LFG;
- Financing;
- Finalization of energy sales agreements;
- Availability of California Energy Commission (CEC) production credits.

COUNTY OF SANTA CRUZ
DEPARTMENT OF PUBLIC WORKS

BROWN, VENCE & ASSOCIATES LFG
CORPORATION

By: _____
Director of Public Works

By: 
Vice President

Address:

Brown, Vence & Associates LFG Corporation
65 Battery Street, Suite 200
San Francisco, CA 94111
(415) 434-0900

**County of Santa Cruz
Landfill Gas Generation Project
Assessment of BVA Proposal**

Background

BVA has provided the County with a proposal to develop a 2,121 kw generating plant that is fueled by the landfill gas generated at the County's landfill site. The proposal calls for two new units to be installed at the site and interconnected to an existing PG&E distribution line. The total cost of the project is estimated to be approximately, \$3.1 million. The proposal makes use of several public programs to support its economics, including a federal tax credit program and a Department of Energy program.

According to the analysis provided by BVA, the opportunity is financially viable. However, in order to attain this viability, BVA requests a loan from the County to the Project. This loan is for \$1.5 million, to be repaid over a 20 year amortization period, with an interest rate of 6.5 percent. The remainder of the capital costs (approximately \$1.6 million) is borrowed from private funding sources, with a 10 year amortization period at 9 percent interest. BVA assumes an energy price series that starts at \$27.90 per MWh, and escalates at approximately 4.5 percent throughout the 15 year period of analysis.

Discussion

BVA has developed a proposal based on well-known generating technology and partnering with a quality supplier of that technology. BVA looks to finance the project with minimal amount of its own funds, calling on the County to provide approximately one-half the funds and the equipment supplier or outside lenders to finance the rest of the project cost. The pro forma provided by BVA predicts that the project is cost effective under the financing assumptions described above. In its assessment, BVA used what now must be considered extremely conservative energy market prices. This is important, because the market prices are the basis of revenues to the project, and therefore the project's profitability.

BVA forecasts a total project value of just under \$1 million, with payback to the County of the \$1.5 million loan. Using the more realistic prices, the project economics are much stronger. I have performed an analysis using a beginning energy price of \$60 per MWh, and project that the proposed project yields a NPV of, almost \$7 million. (For calibration, the current market price for electricity ranges between \$200 and \$800 or more per MWh. Such prices will only make the project economics stronger.) Because the County can become a financial partner to the project, this amount is available for split between BVA and the County. My conclusion is that there is enough economic benefit to make this project viable.

The strong economics of this project provide the County an opportunity to accomplish two energy-related benefits. First, the funds generated by this project can form a natural “hedge” against the high prices the County will face when the State relaxes the current price caps, and higher costs are passed on to electric consumers. Second, I believe there is enough landfill gas fuel generated by the landfill to support an increase in size of the project. We have discussed this conceptually with BVA, and I suggest that the total amount of benefits available to the County could be enhanced by a project expansion.

Alternatives to the BVA Proposal

Part of this review is to assess whether the BVA proposal represents a reasonable offer of value to the County for its landfill gas as a power generation fuel. In this vein, there are three basic paths that the County can pursue. First, it can move forward with the BVA proposal, which has been under development for well over one year. Second, it can take the project over itself. And third, it can market the opportunity and seek more lucrative offers. It is my understanding the County is not interested in owning and operating the project. The third alternative of searching for a new developer is available now, and will be available in the future. I believe it would provide a developer, but the search will require additional efforts, resources and time, and the outcome may be no better than what is on the table at this time. My recommendation is to pursue the first strategy of working with BVA. I believe BVA has worked hard to develop a sound proposal and share information regarding the project economics in an effort to provide the County fair value. The final proof of this will require more specific negotiations, but can be determined in short order. The only mitigating factor is BVA’s reliance on County funding, which I believe affords the County a “financial partnership” role, and therefore significant benefits to the project.

The Electric Energy Market

The California market is under tremendous upheaval and in complete flux. Prices for electricity are very, very high. Industry executives and policy makers are struggling with what to do about all this. In mid-December, the Federal Energy Regulatory Commission (the “FERC”) issued an order virtually reconstructing the wholesale energy market in California. Earlier this week, Southern California Edison, the predominant electricity provider in southern California, announced it would default on a significant debt payment, causing the bond market to reduce both its and PG&E’s bonds to “junk bond” status. This means that loans will be both hard to get and very expensive. Wednesday, Governor Davis declared a state of emergency in the electricity market, and opened the State credit line to help import needed energy. And with all this, we still have rolling blackouts in northern California. Solutions to the California energy crisis are complicated and multifaceted. However, without doubt, one requirement is the construction of new energy sources. At the very least, projects like the BVA project are timely.

Thoughts about Next Steps

I believe the proposed project is economically viable. I also believe that the County has an opportunity to participate in the up side, especially if the project is 100 percent financed between the County and outside loans (with the County subordinate to the outside funding, I presume). Using a 50/50 split of the 100 percent financing scenario, the County would be repaid its loan, plus see a forecast NPV cash flow of \$4.3 million. This would amount to an IRR of 40.4 percent on the \$1.5 million investment (based on what I believe are conservative energy price assumptions).

Negotiating with the developer should include a frank discussion of the project economics, and contingencies to cover lower than forecast cash flows. However, I believe the County can structure a way to achieve the forecast benefits of participating in the project. I also believe the County's negotiating team should explore the opportunity of increasing the size of the project.

Recommendation

Authorize County Staff to negotiate with BVA using an "open book" approach to become a participant (but not a partner) in the project. Come to quick assessment on this as either an opportunity for investment, or a need to remarket the project.



**Santa Cruz County
Landfil Gas Project**

Perspective: County of Santa Cruz

Scenario: BVA Proposal 12-16 w/ Optimistic Price Forecast

	Before start Date	1 Jun-01	2 2002	3 2003	4 2004	5 2005	6 2006	7 2007	17 2017	18 2018	19 2019	20 2020
Investment												
Funds to Project	\$	1,500,000										
Development Reimbursement	\$	110,000										
Interest Income	\$	97,500	\$ 94,989	\$ 92,314	\$ 89,466	\$ 86,432	\$ 83,202	\$ 79,761	\$ 30,314	\$ 23,436	\$ 16,110	\$ 8,309
Principle Repayment	\$	38,635	\$ 41,146	\$ 43,820	\$ 46,669	\$ 49,702	\$ 52,933	\$ 56,373	\$ 105,821	\$ 112,699	\$ 120,024	\$ 127,826
Total Cash Flow to County	\$	246,135	\$ 136,135	\$ 136,135	\$ 136,135	\$ 136,135	\$ 136,135	\$ 136,135	\$ 136,135	\$ 136,135	\$ 136,135	\$ 136,135
Services to Project												
Gas Facility O&M Revenues	\$	30,000	\$ 30,900	\$ 31,827	\$ 32,782	\$ 33,765	\$ 34,770	\$ 35,822	\$ 48,141	\$ 49,585	\$ 51,073	\$ 52,605
Lease Income from Project	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
In-kind Services	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fuel	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Flaring Services (Outflow from County to Project)	\$	(30,000)	\$ (30,750)	\$ (31,519)	\$ (32,307)	\$ (33,114)	\$ (33,942)	\$ (34,791)	\$ (44,535)	\$ (45,649)	\$ (46,790)	\$ (47,960)
Total Services Revenues	\$	-	\$ 150	\$ 308	\$ 475	\$ 651	\$ 836	\$ 1,031	\$ 3,606	\$ 3,937	\$ 4,283	\$ 4,646
Energy Purchase (Own-Use)												
Amount (MWh)												
(Avoided) PG&E Rate Schedule	\$	115.00	\$ 117.30	\$ 119.65	\$ 122.04	\$ 124.48	\$ 126.97	\$ 129.51	\$ 157.87	\$ 161.03	\$ 164.25	\$ 167.53
Negotiated Price from Project	\$	75.00	\$ 76.50	\$ 78.03	\$ 79.59	\$ 81.18	\$ 82.81	\$ 84.46	\$ 102.96	\$ 105.02	\$ 107.12	\$ 109.26
Benefit of Self-Serve	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Returns on Equity												
Percent Stake in Project		50%										
Allocated Return on Equity	\$	410,805	\$ 408,334	\$ 466,337	\$ 494,789	\$ 497,690	\$ 379,815	\$ 409,851	\$ 368,406	\$ 370,553	\$ 372,547	\$ 1,575,161
Total Revenues from Project Participation	\$	(1,500,000)	\$ 656,939	\$ 624,618	\$ 602,780	\$ 631,399	\$ 634,476	\$ 516,786	\$ 547,016	\$ 508,146	\$ 510,624	\$ 512,965
County Discount Rate		6.5%										
NPV		\$4,370,774										
County IRR		40.4%										

**Santa Cruz County
Landfil Gas Project**

Perspective: Developer

Scenario: BVA Proposal 12-16 w/ Optimistic Price Forecast

	1	2	3	4	5	6	7	17	18	19	20
	Jun-01	2002	2003	2004	2005	2006	2007	2017	2018	2019	2020
Revenues											
Development Fees (Pct of Revs)	30%	\$ 85,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sales to Market		\$ 1,309,628	\$ 1,326,625	\$ 1,343,882	\$ 1,361,401	\$ 1,379,188	\$ 1,211,483	\$ 1,229,817	\$ 1,429,287	\$ 1,450,950	\$ 1,472,944
Sales to County		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Green Ticket Revenues		\$ 74,305	\$ 76,163	\$ 78,067	\$ 80,018	\$ 82,019	\$ 84,069	\$ 86,171	\$ 110,306	\$ 113,064	\$ 115,891
Income from PTCs		\$ 172,104	\$ 177,267	\$ 182,585	\$ 188,062	\$ 193,704	\$ 199,515	\$ 205,501	\$ -	\$ -	\$ -
Flaring Revenue		\$ 30,000	\$ 30,750	\$ 31,519	\$ 32,307	\$ 33,114	\$ 33,942	\$ 34,791	\$ 44,535	\$ 45,649	\$ 46,790
Misc. Income (interest, etc.)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenues		\$ 1,610,805	\$ 1,636,052	\$ 1,661,789	\$ 1,688,026	\$ 1,529,010	\$ 1,556,280	\$ 1,584,128	\$ 1,609,662	\$ 1,635,624	\$ 1,662,023
Expenses											
Operating Expenses		\$ 285,066	\$ 293,769	\$ 353,214	\$ 311,627	\$ 320,970	\$ 385,889	\$ 340,489	\$ 488,237	\$ 502,788	\$ 517,874
Fuel (to County)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative and General		\$ 539,478	\$ 392,927	\$ 394,545	\$ 396,119	\$ 397,640	\$ 399,100	\$ 400,491	\$ 408,097	\$ 407,907	\$ 407,471
Total Expenses		\$ 824,544	\$ 686,695	\$ 747,759	\$ 707,745	\$ 718,610	\$ 784,989	\$ 740,980	\$ 896,334	\$ 910,695	\$ 925,344
Net Income from Operations		\$ 846,993	\$ 924,110	\$ 888,293	\$ 954,043	\$ 969,416	\$ 744,022	\$ 815,300	\$ 687,794	\$ 698,967	\$ 710,280
Developer Cash Flow Statement											
Net Income		\$ 846,993	\$ 924,110	\$ 888,293	\$ 954,043	\$ 969,416	\$ 744,022	\$ 815,300	\$ 687,794	\$ 698,967	\$ 710,280
Plus: Depreciation Expense		\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838
Plus: Cash-out of Final Period		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,401,462
Less: Debt (Principal) Payments		\$ (94,721)	\$ (102,280)	\$ (110,457)	\$ (119,302)	\$ (128,873)	\$ (139,229)	\$ (150,436)	\$ (105,821)	\$ (112,699)	\$ (120,024)
Less: Transfers to Working Cash Res'vs		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Available for Distribution		\$ 907,109	\$ 976,667	\$ 932,674	\$ 989,579	\$ 995,381	\$ 759,630	\$ 819,701	\$ 736,811	\$ 741,106	\$ 745,093
Distribution of Proceeds from											
Distribution to County	50%	\$ 453,555	\$ 488,334	\$ 466,337	\$ 494,789	\$ 497,690	\$ 379,815	\$ 409,851	\$ 368,406	\$ 370,553	\$ 372,547
Distribution to Developer	50%	\$ 453,555	\$ 488,334	\$ 466,337	\$ 494,789	\$ 497,690	\$ 379,815	\$ 409,851	\$ 368,406	\$ 370,553	\$ 372,547
Financial Summaries											
Developer's Initial Investment	\$ -										
Developer's Discount Rate	10.0%										
Developer's Cash Flow		\$ 453,555	\$ 488,334	\$ 466,337	\$ 494,789	\$ 497,690	\$ 379,815	\$ 409,851	\$ 368,406	\$ 370,553	\$ 372,547
Net Present Value		\$ 3,537,813									
Internal Rate of Return		#DIV/0!									



Cash Flow Analysis

		1	2	3	4	5	6	7	8	9	10	11	12
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
GAS PRODUCTION													
Gas Produced at Landfill 1 (CFM)		829	859	889	919	949	980	1,010	1,041	1,072	1,103	1,135	1,167
Gas Produced at Landfill 2 (CFM)		215	217	220	222	224	227	229	231	234	236	239	241
Total Gas Produced		1,044	1,076	1,109	1,141	1,173	1,207	1,239	1,272	1,306	1,339	1,374	1,408
Total Gas Used by Power Plant(s)		864	864	864	864	864	864	864	864	864	864	864	864
Gas Available for Sale to Power Plant (eligible for Prod Tax Cr.)		900	900	900	900	900	900	900	900	900	900	1,008	1,008
Additional Fuel Available (CFM, ST LFG Cap)	25%	216	216	216	216	216	216	216	216	216	216	216	216
Gas Avail for Additional Generation		396	428	461	493	525	559	591	624	658	691	726	760
ELECTRICITY PRODUCTION													
Number of Engines		2	2	2	2	2	2	2	2	2	2	2	2
KV Output		2,121	2,121	2,121	2,121	2,121	2,121	2,121	2,121	2,121	2,121	2,121	2,121
Total Production (MWh)		18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576
Sales to County (Direct Connect, KWh/Yr)		-	-	-	-	-	-	-	-	-	-	-	-
Sales to Market (KWh/Yr)		18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576
REVENUE (\$ 1,000)													
Base Sales to Market													
Electric Price (\$/MWh)	1.5%	\$ 60.00	\$ 60.90	\$ 61.81	\$ 62.74	\$ 63.68	\$ 64.64	\$ 65.61	\$ 66.59	\$ 67.59	\$ 68.60	\$ 69.63	\$ 70.68
AB 1890 Production Credit		\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00
DOE Subsidy	3%	\$ 0.50	\$ 0.52	\$ 0.53	\$ 0.55	\$ 0.56	\$ 0.58	\$ 0.60	\$ 0.61	\$ 0.63	\$ 0.65	\$ 0.67	\$ 0.69
Total Price		\$ 70.50	\$ 71.42	\$ 72.34	\$ 73.29	\$ 74.24	\$ 75.22	\$ 76.21	\$ 77.21	\$ 78.22	\$ 79.26	\$ 80.30	\$ 81.37
Sales		\$ 18,576	\$ 18,576	\$ 18,576	\$ 18,576	\$ 18,576	\$ 18,576	\$ 18,576	\$ 18,576	\$ 18,576	\$ 18,576	\$ 18,576	\$ 18,576
Total Market Revenue		\$ 1,309,828	\$ 1,326,625	\$ 1,343,882	\$ 1,361,401	\$ 1,379,188	\$ 1,397,183	\$ 1,415,417	\$ 1,433,911	\$ 1,452,674	\$ 1,471,716	\$ 1,491,044	\$ 1,510,667
Base Sales to County													
Price Paid by County (\$/MWh)		\$ 75.00	\$ 76.50	\$ 78.03	\$ 79.59	\$ 81.18	\$ 82.81	\$ 84.46	\$ 86.15	\$ 87.87	\$ 89.63	\$ 91.42	\$ 93.25
AB 1890 Production Credit		\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00
DOE Subsidy		\$ 0.50	\$ 0.52	\$ 0.53	\$ 0.55	\$ 0.56	\$ 0.58	\$ 0.60	\$ 0.61	\$ 0.63	\$ 0.65	\$ 0.67	\$ 0.69
Total Price		\$ 85.50	\$ 87.02	\$ 88.56	\$ 90.14	\$ 91.75	\$ 93.39	\$ 95.06	\$ 96.77	\$ 98.51	\$ 100.28	\$ 102.10	\$ 103.95
Sales		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenue from County		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Revenue													
Green Ticket Revenues													
Sales (MWh)		18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576
Green Ticket Unit Revenues	2.5%	\$ 4.00	\$ 4.10	\$ 4.20	\$ 4.31	\$ 4.42	\$ 4.53	\$ 4.64	\$ 4.75	\$ 4.87	\$ 5.00	\$ 5.12	\$ 5.26
Total Green Ticket Revenues		\$ 74,305	\$ 76,163	\$ 78,067	\$ 80,018	\$ 82,016	\$ 84,060	\$ 86,151	\$ 88,289	\$ 90,474	\$ 92,707	\$ 94,989	\$ 97,326
Federal Production Tax Credit (LFG)													
Amount of Gas Subject to Credit (MMBTUs)		212,868	212,868	212,868	212,868	212,868	212,868	212,868	212,868	212,868	212,868	238,412	238,412
Value of Credit (per MMBTU)	3%	\$ 1.16	\$ 1.19	\$ 1.23	\$ 1.26	\$ 1.30	\$ 1.34	\$ 1.38	\$ 1.42	\$ 1.46	\$ 1.51	\$ 1.55	\$ 1.60
Percent Recoverable		70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Total Federal Production Tax Credit Revenue		\$ 172,104	\$ 177,267	\$ 182,585	\$ 188,062	\$ 193,704	\$ 199,515	\$ 205,501	\$ 211,674	\$ 218,024	\$ 224,569	\$ 231,317	\$ 238,264
Amount Included in Annual Cash Flow		\$ 172,104	\$ 177,267	\$ 182,585	\$ 188,062	\$ 193,704	\$ 199,515	\$ 205,501	\$ 211,674	\$ 218,024	\$ 224,569	\$ 231,317	\$ 238,264
Flaring Revenue from Counties													
	2.5%	\$ 30,000	\$ 30,750	\$ 31,519	\$ 32,307	\$ 33,114	\$ 33,942	\$ 34,791	\$ 35,661	\$ 36,552	\$ 37,466	\$ 38,403	\$ 39,363
Misc Interest Income													
On Debt Reserves		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenues		\$ 1,588,037	\$ 1,610,805	\$ 1,636,052	\$ 1,661,789	\$ 1,688,026	\$ 1,714,816	\$ 1,742,170	\$ 1,769,995	\$ 1,798,321	\$ 1,827,155	\$ 1,856,496	\$ 1,886,344
Expenses													
Operating Expenses													
Operating Expense Escalation Series	3.00%	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	1,384
Fixed O&M on Power Plant (\$/Year)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Variable O&M per MWh		\$ 13.73	\$ 14.15	\$ 14.57	\$ 15.01	\$ 15.46	\$ 15.92	\$ 16.40	\$ 16.89	\$ 17.39	\$ 17.92	\$ 18.46	\$ 19.04
Variable O&M on Power Plant (\$/MWh)	1.75	\$ 265,052	\$ 262,854	\$ 321,370	\$ 278,830	\$ 287,189	\$ 351,092	\$ 304,651	\$ 313,753	\$ 383,786	\$ 332,887	\$ 368,553	\$ 379,699
Gas Facility O&M	30,000	\$ 30,000	\$ 30,900	\$ 31,827	\$ 32,782	\$ 33,765	\$ 34,778	\$ 35,822	\$ 36,896	\$ 38,003	\$ 39,143	\$ 40,317	\$ 41,527
Lease Expense from County		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Charges from County for In-kind Services		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Operating Expenses		\$ 285,066	\$ 293,769	\$ 353,214	\$ 311,627	\$ 320,970	\$ 385,869	\$ 340,489	\$ 350,666	\$ 421,810	\$ 372,048	\$ 408,891	\$ 421,247
Fuel													
Payment to County for Fuel		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative and General													
A&G Expense	\$ 70,000	\$ 70,000	\$ 72,100	\$ 74,263	\$ 76,491	\$ 78,788	\$ 81,149	\$ 83,584	\$ 86,091	\$ 88,674	\$ 91,334	\$ 94,074	\$ 96,896
Insurance Expense	\$ 55,000	\$ 55,000	\$ 56,650	\$ 58,350	\$ 60,100	\$ 61,903	\$ 63,760	\$ 65,673	\$ 67,643	\$ 69,672	\$ 71,763	\$ 73,915	\$ 76,133
Power Marketing Expense	\$ 0.75	\$ 13,932	\$ 14,350	\$ 14,781	\$ 15,224	\$ 15,681	\$ 16,151	\$ 16,636	\$ 17,135	\$ 17,649	\$ 18,178	\$ 18,724	\$ 19,285
Interest Expense (from "Finance" Worksheet)		\$ 245,708	\$ 94,989	\$ 92,314	\$ 89,466	\$ 86,432	\$ 83,202	\$ 79,761	\$ 76,097	\$ 72,195	\$ 68,038	\$ 63,612	\$ 58,898
Depreciation Expense (from "Finance" Worksheet)		\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838
Total A&G Expenses		\$ 539,478	\$ 392,927	\$ 394,545	\$ 396,119	\$ 397,640	\$ 399,100	\$ 400,491	\$ 401,804	\$ 403,027	\$ 404,151	\$ 405,163	\$ 406,051
Total Expenses		\$ 824,544	\$ 686,695	\$ 747,759	\$ 707,745	\$ 718,610	\$ 784,989	\$ 740,980	\$ 752,470	\$ 824,837	\$ 776,199	\$ 814,054	\$ 827,297
Net Income From Operations		\$ 761,493	\$ 924,110	\$ 888,293	\$ 954,043	\$ 969,416	\$ 744,022	\$ 815,300	\$ 819,947	\$ 569,577	\$ 640,579	\$ 625,460	\$ 635,332
Statement of Cash Flows													
Net Income from Operations		\$ 761,493	\$ 924,110	\$ 888,293	\$ 954,043	\$ 969,416	\$ 744,022	\$ 815,300	\$ 819,947	\$ 569,577	\$ 640,579	\$ 625,460	\$ 635,332
Plus: Depreciation Expense		\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838
Plus: Final Asset Balances (Final Year of Operations)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Available to Cover Debt		\$ 916,331	\$ 1,078,947	\$ 1,043,131	\$ 1,108,881	\$ 1,124,254	\$ 898,859	\$ 970,137	\$ 774,784	\$ 724,415	\$ 795,416	\$ 780,298	\$ 790,169
Less: Debt Payments		(94,721)	(102,280)	(110,457)	(119,302)	(128,873)	(139,229)	(150,436)	(162,566)	(175,896)	(189,910)	(205,300)	(221,954)
Less: Working Reserves (trans to "Finance" W/S)	\$ -	0	0	0	0	0	0	0	0	0	0	0	0
Cash Available for Distribution		\$ 821,609	\$ 976,667	\$ 932,674	\$ 989,579	\$ 995,381	\$ 759,630	\$ 819,701	\$ 612,218	\$ 548,519	\$ 605,506	\$ 574,998	\$ 568,206
Distribution to County	50%	\$ 410,805	\$ 488,334	\$ 466,337	\$ 494,789	\$ 497,690	\$ 379,815	\$ 409,851	\$ 306,109	\$ 274,359	\$ 302,753	\$ 287,499	\$ 284,103
Distribution to Developer	50%	\$ 410,805	\$ 488,334	\$ 466,337	\$ 494,789	\$ 497,690	\$ 379,815	\$ 409,851	\$ 306,109	\$ 274,359	\$ 302,753	\$ 287,499	\$ 284,103

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Cash Flow Analysis

	13	14	15	16	17	18	19	20
	2013	2014	2015	2016	2017	2018	2019	2020
GAS PRODUCTION								
Gas Produced at Landfill 1 (CFM)	1,199	1,231	1,264	1,297	1,330	1,364	1,398	1,433
Gas Produced at Landfill 2 (CFM)	244	247	249	252	255	258	261	264
Total Gas Produced	1,443	1,478	1,513	1,549	1,585	1,622	1,659	1,697
Total Gas Used by Power Plant(s)	864	864	864	864	864	864	864	864
Gas Available for Sale to Power Plant (eligible for Prod Tax Cr	1,008	1,008	1,008	1,008	1,008	1,008	1,008	1,008
Additional Fuel Available (CFM, ST LFG Cap)	216	216	216	216	216	216	216	216
Gas Avail for Additional Generation	795	830	865	901	937	974	1,011	1,049
ELECTRICITY PRODUCTION								
Number of Engines	2	2	2	2	2	2	2	2
KW Output	2,121	2,121	2,121	2,121	2,121	2,121	2,121	2,121
Total Production (MWh)	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576
Sales to County (Direct Connect, KWh/Yr)	-	-	-	-	-	-	-	-
Sales to Market (KWh/Yr)	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576
REVENUE (\$ 1,000)								
Base Sales to Market								
Electric Price (\$/MWh)	\$ 71.74	\$ 72.81	\$ 73.91	\$ 75.01	\$ 76.14	\$ 77.28	\$ 78.44	\$ 79.62
AB 1890 Production Credit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DOE Subsidy	\$ 0.71	\$ 0.73	\$ 0.76	\$ 0.78	\$ 0.80	\$ 0.83	\$ 0.85	\$ 0.88
Total Price	\$ 72.45	\$ 73.55	\$ 74.66	\$ 75.79	\$ 76.94	\$ 78.11	\$ 79.29	\$ 80.49
Sales	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576
Total Market Revenue	\$ 1,345,851	\$ 1,366,237	\$ 1,386,936	\$ 1,407,950	\$ 1,429,287	\$ 1,450,950	\$ 1,472,944	\$ 1,495,275
Base Sales to County								
Price Paid by County (\$/MWh)	\$ 95.12	\$ 97.02	\$ 98.96	\$ 100.94	\$ 102.96	\$ 105.02	\$ 107.12	\$ 109.26
AB 1890 Production Credit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DOE Subsidy	\$ 0.71	\$ 0.73	\$ 0.76	\$ 0.78	\$ 0.80	\$ 0.83	\$ 0.85	\$ 0.88
Total Price	\$ 95.83	\$ 97.75	\$ 99.72	\$ 101.72	\$ 103.76	\$ 105.84	\$ 107.97	\$ 110.14
Sales	-	-	-	-	-	-	-	-
Total Revenue from County	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Revenue								
Green Ticket Revenues								
Sales (MWh)	18,576	18,576	18,576	18,576	18,576	18,576	18,576	18,576
Green Ticket Unit Revenues	\$ 5.38	\$ 5.51	\$ 5.65	\$ 5.79	\$ 5.94	\$ 6.09	\$ 6.24	\$ 6.39
Total Green Ticket Revenues	\$ 99,932	\$ 102,430	\$ 104,991	\$ 107,616	\$ 110,308	\$ 113,064	\$ 115,861	\$ 118,788
Federal Production Tax Credit (LFG)								
Amount of Gas Subject to Credit (MMBTUs)	238,412	238,412	238,412	238,412	238,412	238,412	238,412	238,412
Value of Credit (per MMBTU)	\$ 1.85	\$ 1.70	\$ 1.75	\$ 1.80	\$ 1.85	\$ 1.91	\$ 1.97	\$ 2.03
Percent Recoverable	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Total Federal Production Tax Credit Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amount Included in Annual Cash Flow	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Flaring Revenue from Counties								
	\$ 40,347	\$ 41,355	\$ 42,389	\$ 43,449	\$ 44,535	\$ 45,649	\$ 46,790	\$ 47,960
Misc Interest Income								
On Debt Reserves	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenues	\$ 1,486,130	\$ 1,510,023	\$ 1,534,316	\$ 1,559,015	\$ 1,584,128	\$ 1,609,862	\$ 1,635,624	\$ 1,662,023
Expenses								
Operating Expenses								
Operating Expense Escalation Series	1,426	1,469	1,513	1,558	1,605	1,653	1,702	1,754
Fixed O&M on Power Plant (\$/Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Variable O&M per MWh	\$ 21.05	\$ 21.88	\$ 22.33	\$ 23.00	\$ 23.69	\$ 24.40	\$ 25.13	\$ 25.88
Variable O&M on Power Plant (\$/MWh)	\$ 391,031	\$ 402,734	\$ 414,808	\$ 427,254	\$ 440,072	\$ 453,178	\$ 466,775	\$ 480,779
Gas Facility O&M	\$ 42,773	\$ 44,056	\$ 45,378	\$ 46,739	\$ 48,141	\$ 49,585	\$ 51,073	\$ 52,605
Lease Expense from County	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Charges from County for In-kind Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Operating Expenses	\$ 433,825	\$ 446,811	\$ 460,208	\$ 474,016	\$ 488,237	\$ 502,788	\$ 517,874	\$ 533,410
Fuel								
Payment to County for Fuel	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative and General								
A&G Expense	\$ 99,803	\$ 102,797	\$ 105,881	\$ 109,058	\$ 112,329	\$ 115,699	\$ 119,170	\$ 122,745
Insurance Expense	\$ 78,417	\$ 80,789	\$ 83,192	\$ 85,888	\$ 88,259	\$ 90,907	\$ 93,634	\$ 96,443
Power Marketing Expense	\$ 19,864	\$ 20,480	\$ 21,074	\$ 21,706	\$ 22,357	\$ 23,028	\$ 23,719	\$ 24,430
Interest Expense (from "Finance" Worksheet)	\$ 53,878	\$ 48,531	\$ 42,837	\$ 36,773	\$ 30,314	\$ 23,436	\$ 16,110	\$ 8,309
Depreciation Expense (from "Finance" Worksheet)	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838
Total A&G Expenses	\$ 406,800	\$ 407,395	\$ 407,822	\$ 408,062	\$ 408,097	\$ 407,907	\$ 407,471	\$ 406,765
Total Expenses	\$ 840,624	\$ 854,207	\$ 868,030	\$ 882,079	\$ 896,334	\$ 910,695	\$ 925,344	\$ 940,175
Net Income From Operations	\$ 645,506	\$ 655,816	\$ 666,286	\$ 676,937	\$ 687,794	\$ 698,967	\$ 710,280	\$ 721,848
Statement of Cash Flows								
Net Income from Operations	\$ 645,506	\$ 655,816	\$ 666,286	\$ 676,937	\$ 687,794	\$ 698,967	\$ 710,280	\$ 721,848
Plus: Depreciation Expense	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838	\$ 154,838
Plus: Final Asset Balances (Final Year of Operations)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,401,462
Cash Available to Cover Debt	\$ 800,343	\$ 810,654	\$ 821,123	\$ 831,774	\$ 842,632	\$ 853,805	\$ 865,118	\$ 876,148
Less: Debt Payments	(240,009)	(259,554)	(280,724)	(99,362)	(105,821)	(112,699)	(120,024)	(127,826)
Less: Working Reserves (trans to "Finance" W/S)	0	0	0	0	0	0	0	0
Cash Available for Distribution	\$ 560,334	\$ 551,100	\$ 540,400	\$ 732,412	\$ 736,811	\$ 741,106	\$ 745,093	\$ 748,322
Distribution to County	\$ 280,167	\$ 275,550	\$ 270,200	\$ 366,206	\$ 368,406	\$ 370,553	\$ 372,547	\$ 1,575,161
Distribution to Developer	\$ 280,167	\$ 275,550	\$ 270,200	\$ 366,206	\$ 368,406	\$ 370,553	\$ 372,547	\$ 1,575,161

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