

BEFORE THE COUNCIL OF THE
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF AUTHORIZING)	RESOLUTION NO. 87-809
ENTRY INTO MEMORANDUM OF)	
UNDERSTANDING NEGOTIATIONS WITH)	Introduced by the
SYSTEMS CONTRACTORS OF MASS)	Executive Officer
COMPOSTING AND REFUSE-DERIVED)	
FUEL INCINERATION SYSTEMS)	

WHEREAS, The Metropolitan Service District has evaluated five proposals received January 30, 1987, as a result of issuing two Request for Proposals for mass composting, mass incineration and refuse-derived fuel technology systems in November 1986; and

WHEREAS, The evaluation criteria have been met, as evidenced in the Resource Recovery project Final Evaluation Report; and

WHEREAS, The Council of the Metropolitan Service District has committed, through Ordinance No. 86-201, to negotiate with selected firm(s) for the procurement of a resource recovery system if Council adopted criteria are met; and

WHEREAS, Metro's Resource Recovery Negotiating Team conducted preliminary negotiations with Combustion Engineering, Fluor/SEI, Riedel/DANO, and Schnitzer/Ogden from August 11 - 13, 1987, to request information on siting the facility at St. Helens, Oregon, and to request improvements in the proposals; and

WHEREAS, Combustion Engineering and Riedel/DANO have been recommended by the Executive Officer for further consideration; now, therefore,

BE IT RESOLVED,

1. That the Metropolitan Service District will continue to negotiate a Memorandum of Understanding with Riedel/DANO for a mass

composting facility capable of processing 160,000 tons per year of solid waste, to be located at N.E. Columbia Boulevard in Portland, Oregon.

2. That the Metropolitan Service District will proceed to negotiate a Memorandum of Understanding with Combustion Engineering for a refuse-derived fuel facility capable of processing 350,000 tons per year of solid waste to be located in St. Helens, Oregon, and that those negotiations would require the proposer meet or better the air emissions standards of the state Department of Environmental Quality.


3. That should negotiations with Combustion Engineering fail to yield a Memorandum of Understanding that meets the Metropolitan Service District's criteria within 60 days, negotiations will be conducted with Schnitzer/Ogden, and failing those, with Fluor/SEI.

4. That Metro will initiate an independent scientific review of the potential environmental and health impacts of a solid waste incineration project for the Metro area; this review will be conducted by Oregon citizens and scientists, including private citizens and public officials of St. Helens and Columbia County, and environmental and public health experts from, for example, Oregon Health Sciences University, Oregon State University, and the Department of Environmental Quality. The review will be completed by December 31, 1987.

5. That upon completion of Memorandum of Understanding negotiations, a "system of analysis" will be conducted that will yield comparative cost data on a landfill based system and a system

that includes resource recovery prior to authorizing contract negotiations.

ADOPTED by the Council of the Metropolitan Service District
this 22nd day of September, 1987.


Richard Waker, Presiding Officer

DA/amn
8178C/517-2
09/24/87

M E M O R A N D U M

TO: Rena Cusma, Metro Executive Officer

FROM: Resource Recovery Negotiating Team

DATE: September 10, 1987

RE: Report on Preliminary Negotiations
and Recommendations

BACKGROUND: On June 30, 1987, Metro Council directed the negotiating team to conduct preliminary negotiations with the three waste-to-energy proposers and to begin negotiations with Riedel for the purpose of addressing key issues and making each proposal more advantageous to Metro. Council's goal was to select one waste-to-energy proposer for Memorandum of Understanding (MOU) negotiations and to determine whether to continue with Riedel for a composting project.

RECOMMENDATION: Based on these preliminary negotiations, the negotiating team recommends that Metro enter into full MOU negotiations with Combustion Engineering (C-E) for a waste-to-energy project and that negotiations with Riedel continue. We recommend Schnitzer Steel/Ogden-Martin Systems, Inc. (S/O) and Fluor/Southern Electric International (F/S) be second and third ranked, respectively, for the waste-to-energy MOU negotiations if negotiations with C-E do not proceed satisfactorily.

I. RESULTS OF PRELIMINARY WASTE-TO-ENERGY NEGOTIATIONS:

1. Tip Fee: During preliminary negotiations, each proposer significantly reduced its proposed tip fee. The C-E proposal offers the lowest tip fee - approximately \$38.81/ton. This is approximately \$2.11/ton less than F/S and \$3.93 less than S/O.

	<u>Before Negotiations:</u>		<u>After Negotiations:</u>	
	<u>Tip Fee/Ton:*</u>	<u>Total Cost:**</u>	<u>Tip Fee/Ton:*</u>	<u>Total Cost:**</u>
C-E	\$47.76	\$334,320,000	\$38.81	\$271,670,000
F/S***	\$49.13	\$343,910,000	\$40.92	\$286,440,000
S/O	\$45.53	\$318,710,000	\$42.74	\$299,180,000

*Using average deflated costs in 1987 dollars and PGE's lower rates based on its current avoided costs estimates.

**20 year cumulative tip fee in 1987 dollars.

***Without haul cost to St. Helens, Tip Fee/Ton is \$43.62 and Total Cost is \$305,340,000.

2. Financial Guarantees/Ratings: Based on information provided to Metro, C-E would be rated "A" and S/O "BBB+". While F/S potentially has the strongest credit rating due to the assets of Southern Company, Southern Company is legally unable to fully guarantee the F/S obligations at this time nor has F/S secured a binding commitment for an acceptable surety or letter of credit. As a result, F/S is treated as a "BBB" credit.

Ratings directly affect bond interest rates. Based on historical spreads between "A", "BBB+" and "BBB" interest rates, the C-E rating will result in an advantage over S/O of approximately 60¢/ton and an advantage over F/S of approximately 90¢ to \$1.05/ton.

EQUITY: Metro received equity proposals of \$23,103,148 from S/O and \$15,500,000 from F/S, both based on equity contributed periodically during construction. C-E proposed that its equity of approximately \$24,992,651 be contributed in a lump sum upon completion of the plant rather than periodically during construction. C-E's lump sum contribution is superior and lowers the tip fee by approximately \$2.91/ton.

S/O requires reimbursement of its equity only if an uncontrollable circumstance causes plant shutdown and Metro decides to repair and operate the facility, a position which provides the least risk to Metro. C-E's obligation to commit equity will vary with the consequences of the uncontrollable circumstance, while F/S requires reimbursement of its equity if certain changes in law occur.

SHARING FEDERAL TAX BENEFITS: C-E is willing to negotiate a sharing of any "windfall" resulting from the sale of federal tax benefits, which could be up to \$8 million in today's dollars. C-E's willingness to share is not conditioned on Metro's acceptance of a smaller equity contribution if federal tax benefits are less than expected. Rather, the equity amount is guaranteed. S/O and F/S are not willing to offer a similar arrangement, but will only share if Metro accepts less equity if federal tax benefits are less than expected.

STATE TAX CREDITS: Subject to changes made during DEQ's upcoming rulemaking regarding the revised Oregon Pollution Control tax credits statutes, preliminary discussions suggest that the available state tax credits could range from \$375,000 to \$600,000 annually for ten years, depending on which technology is chosen and if construction is completed by December 31, 1990. This could lower tip fees \$1 to \$2/ton during the ten-year period. An RDF facility should be eligible for more Oregon tax credits than a mass burn facility, while most capital costs of a composting facility should qualify.

C-E and F/S will pass through to Metro 100% of the state tax benefits if realized. S/O wants to negotiate a sharing formula.

BUSINESS/PERFORMANCE GUARANTEES: All proposers provide similar guarantees with respect to through-put, environmental compliance, utility and lime consumption, residue composition and quality, and escalation of operating and maintenance costs. With respect to the business and performance guarantees set forth below, C-E's guarantees and revenue sharing proposals, on balance, are more substantial and offer Metro greater potential for additional reductions in the tip fee.

Extension of Fixed Capital Cost Price. F/S has extended its fixed price to January, 1988, and C-E to October 27, 1987. S/O did not extend its deadline.

Price. S/O reduced its Capital Cost Price from \$105,401,000 to \$102,901,000. F/S's and C-E's Capital Cost Prices stayed the same but C-E lowered its annual operation and maintenance (O&M) expense by \$655,000.

Construction Guarantee. C-E guarantees completion in 30 months, as opposed to 35 months for F/S and 32 months for S/O. A shorter construction period offers a better chance to utilize the State tax credits.

Recovered Materials/Revenue Sharing. S/O guarantees 80% ferrous recovery and its sale. F/S (Shaneway) guarantees 70% recovery and C-E 90%. C-E guarantees aluminum recovery of 30%. S/O returns no revenue to Metro. C-E shares 90% of ferrous revenues and F/S shares 100%.

Recovered Energy. C-E guarantees 550 KWh/Ton, F/S is 450 KWh/Ton and S/O is 470 KWh/Ton.

Energy Revenue Sharing. C-E passes through 100% to Metro, F/S - 100% up to the guarantee and 50/50 above the guarantee, and S/O shares 90% the first year, reduced 2% each year until Metro's share is 80%.

WILLINGNESS TO NEGOTIATE: C-E made the most substantial movement of the proposers by (a) reducing annual O&M, (b) extending its Capital Cost Price and O&M to October 27, 1987, (c) adding aluminum recovery, and (d) offering a mass burn proposal. On the other hand, F/S increased its equity contribution from \$12 million to \$15.5 million and extended its fixed price construction cost to January 30, 1988, while S/O reduced its Capital Cost Price.

Based on the limited negotiations and on prior meetings, discussions and phone conferences with each proposer, we believe C-E is, by a significant margin, the proposer most willing to negotiate reasonable solutions (from Metro's standpoint) to the issues that have yet to be resolved.

4. RELIABILITY: Based on the waste supply Metro can deliver, the analysis provided by C-E adequately demonstrates that a single line system can have the identical availability of a two line system. In addition, C-E is willing to build a second processing line and/or steam generator at no cost to Metro if the facility does not meet performance standards.

TRACK RECORD: In two months (before Metro makes a binding decision) C-E will be operating a major RDF facility. S/O's oldest plant has a 2 year operating history while Fluor is 2 years away from operating a plant. No proposer has extensive operating experience. If, after Metro tours C-E's RDF plant in operation, Metro is not satisfied with RDF, C-E will build a mass burn facility at a price which will result in approximately the same tip fees as RDF.

5. EMISSIONS: It appears that C-E's RDF facility will emit less thermal NO_x due to its potential for more rapid cooling of gases and will have a greater ability to extract NO_x producing waste prior to burning.

6. HIERARCHY: With respect to Metro's hierarchy, C-E is superior. C-E, F/S and S/O are equivalent as to steam and electric production. The ferrous removal position of each proposer is very close, although S/O's guarantee not to landfill ferrous is best, with C-E's removal of pre-incinerated ferrous second and F/S's Shaneway system last. The pivotal hierarchy factor is C-E's aluminum recovery proposal which should yield to Metro a tip fee reduction of approximately 70¢/ton.

II. STATUS REPORT ON NEGOTIATIONS WITH RIEDEL

Negotiations with Riedel focused on the status of Riedel's efforts to secure private financing and whether Riedel Resources would guarantee Riedel's obligations.

Although we were pleased that Riedel was able to obtain a preliminary financing commitment from a reputable bank, the terms were unacceptable. Riedel is optimistic that reasonable terms can be obtained.

Riedel cannot obtain a guaranty from Riedel Resources. The team believes that, in order for this proposal to be acceptable to Metro, Riedel must secure a third party willing and able to fully guarantee all financial and performance obligations.

BEFORE THE COUNCIL OF THE
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF AUTHORIZING ENTRY)
INTO MEMORANDUM OF UNDERSTANDING) Introduced by
NEGOTIATIONS WITH SYSTEMS CONTRACTORS) Executive Officer
OF MASS COMPOSTING AND REFUSE DERIVED)
FUEL INCINERATION SYSTEMS)

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WHEREAS, the evaluation criteria have been met, as evidenced in the Resource Recovery Project Final Evaluation Report; and

WHEREAS, this Council has committed, through Ordinance No. 86-201, to negotiate with selected firm(s) for the procurement of a resource recovery system if Council adopted criteria are met; and

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WHEREAS, Combustion Engineering and Riedel/DANO have been recommended by the Executive Officer for further consideration; now, therefore,

BE IT RESOLVED,

1. That Metro will continue to negotiate a Memorandum of Understanding (MOU) with Riedel/DANO for a mass composting facility capable of processing 160,000 TPY of solid waste, to be located at N.E. Columbia Boulevard in Portland, Oregon; and

2. That Metro will proceed to negotiate a Memorandum of Understanding with Combustion Engineering for a Refuse Derived Fuel (RDF) facility capable of processing 350,000 TPY of solid waste to be located in St. Helens, Oregon; and

3. That should negotiations with Combustion Engineering fail to yield a Memorandum of Understanding that meets Metro's criteria, within 60 days, negotiations will be conducted with Schnitzer/Ogden, and failing those, with Fluor/SEI; and

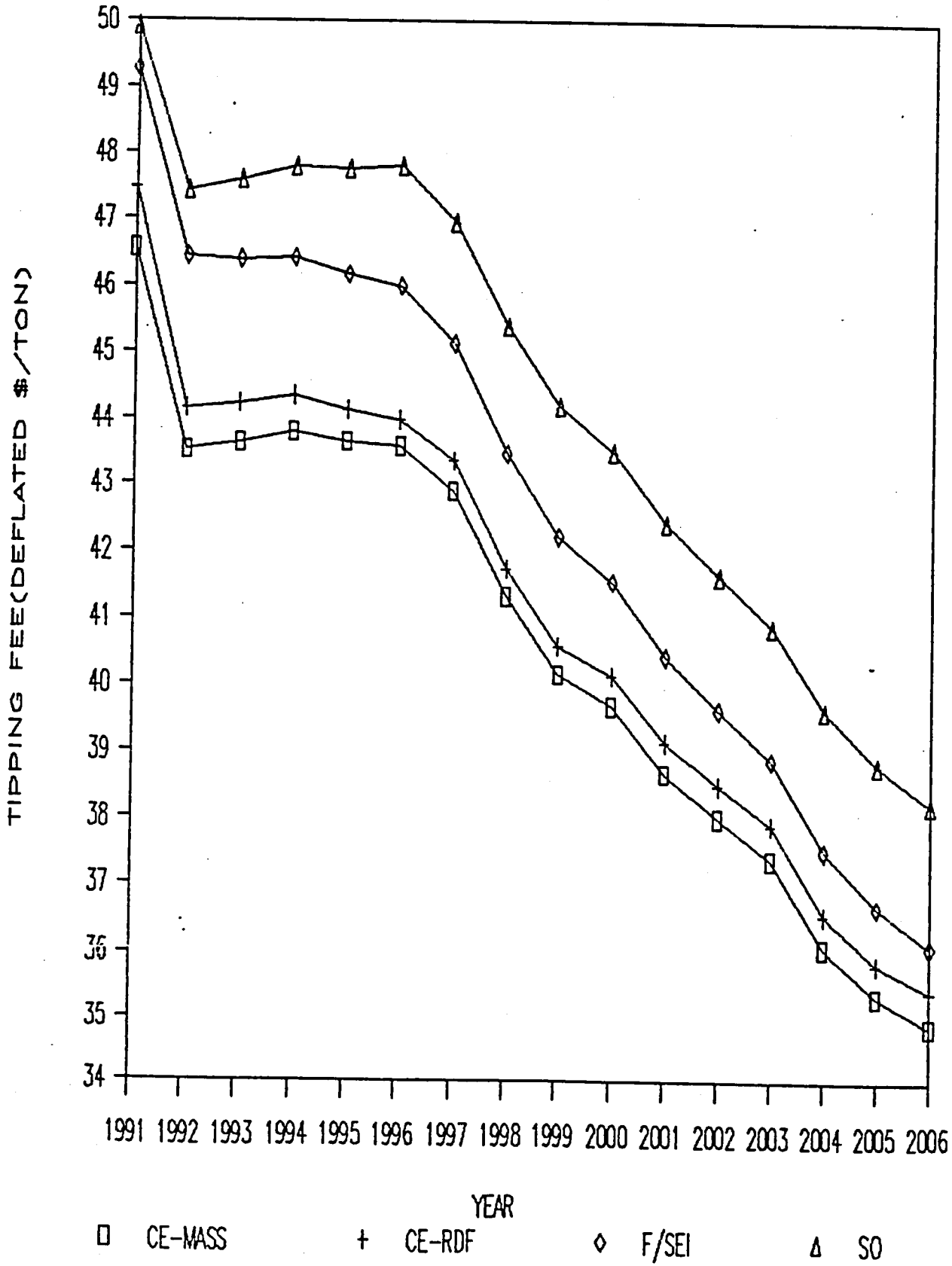
4. That upon completion of MOU negotiations a "system cost analysis" will be conducted that will yield comparative cost data on a landfill based system and a system that includes resource recovery prior to authorizing contract negotiations.

ADOPTED by the Council of the Metropolitan Service District this _____ day of _____, 1987.

Richard Waker, Presiding Officer

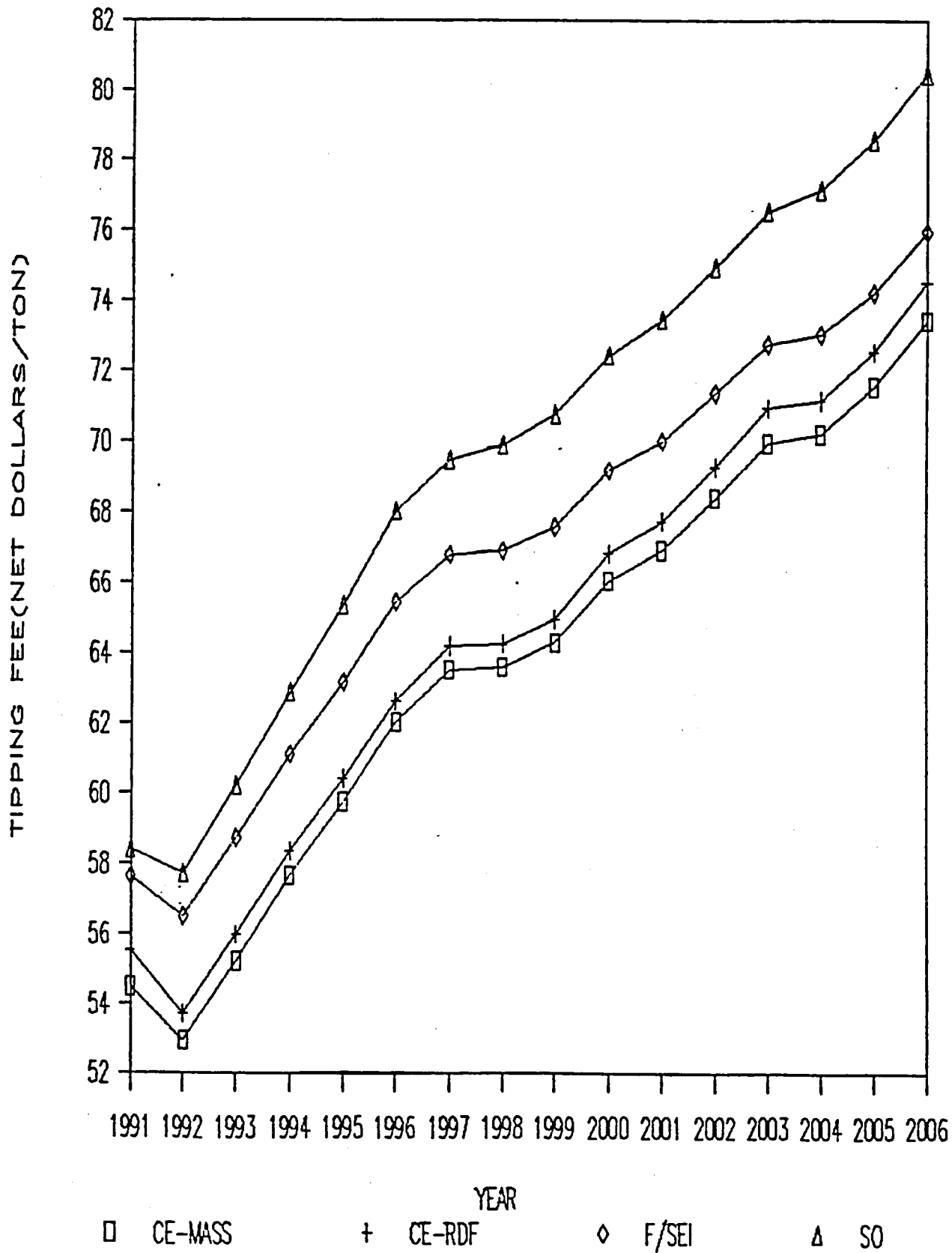
PORTLAND METRO PROJECT

TIPPING FEE COMPARISON



PORTLAND METRO PROJECT

TIPPING FEE COMPARISON



PORTLAND METRO PROJECT - PAGE ONE
 COMBUSTION ENGINEERING, INC.
 350,000 TPY REFUSE DERIVED FUEL FACILITY PROPOSAL-BASE-RDF

PORTLAND METRO RESOURCE RECOVERY PROJECT - BASE CASE REVENUE AND EXPENSE FORECAST
 (\$000, Except Where Otherwise Specified)

ASSUMPTIONS:	OPERATING PERIOD YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1986 Dollars	YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
FACILITY OPERATING ANALYSIS																	
350,000 Tons	Accept. Waste Received (Tons)	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
0.00 Percent	Bypass Waste (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Accept. Waste Processed (Tons)	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
27 Percent	Residue to Landfill (Tons)	92,855	92,855	92,855	92,855	92,855	92,855	92,855	92,855	92,855	92,855	92,855	92,855	92,855	92,855	92,855	92,855
550 kWh/Ton	Electricity Produced (MWh/Year)	192,500	192,500	192,500	192,500	192,500	192,500	192,500	192,500	192,500	192,500	192,500	192,500	192,500	192,500	192,500	192,500
0 Pounds	Steam Produced (Pounds/Year)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Percent	Materials Recovered (Tons)	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700
0 Percent	RDF Produced (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Compost Produced (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.04 esc. rate	REVENUES																
	Electricity Value (\$/MWh)	21.00	28.99	29.87	30.74	32.58	34.40	35.23	38.95	41.67	42.45	45.12	46.82	48.50	52.97	55.53	57.14
	Total Electricity Revenue	4,043	5,581	5,750	5,917	6,272	6,622	6,782	7,498	8,021	8,172	8,686	9,013	9,336	10,197	10,690	10,999
2.39 \$/1,000lb	Steam Value (\$/1,000 Pounds)	2.91	3.02	3.15	3.27	3.40	3.54	3.68	3.83	3.98	4.14	4.30	4.48	4.66	4.84	5.04	5.24
	Total Steam Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.00 \$/Ton	Recovered Materials Value (\$/Ton)	5.52	5.63	5.74	5.86	5.98	6.09	6.22	6.34	6.47	6.60	6.73	6.86	7.00	7.14	7.28	7.43
1.02 esc. rate	Total Materials Revenue	81	83	84	85	88	90	91	93	95	97	99	101	103	105	107	109
7.50 \$/Ton	RDF Value (\$/Ton)	9.12	9.49	9.87	10.26	10.67	11.10	11.55	12.01	12.49	12.99	13.51	14.05	14.61	15.19	15.80	16.43
	Total RDF Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 \$/Ton	Compost Value (\$/Ton)	3.65	3.80	3.95	4.11	4.27	4.44	4.62	4.80	5.00	5.20	5.40	5.62	5.84	6.08	6.32	6.57
	Total Compost Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Revenues	4,124	5,663	5,834	6,004	6,359	6,712	6,873	7,591	8,117	8,269	8,785	9,114	9,439	10,302	10,797	11,109
REVENUE CREDITS TO METRO																	
100 Percent	Percent Electricity Credit	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Dollar Electricity Credit	4,043	5,581	5,750	5,917	6,272	6,622	6,782	7,498	8,021	8,172	8,686	9,013	9,336	10,197	10,690	10,999
0 Percent	Percent Steam Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dollar Steam Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Percent	Percent Rec. Materials Credit	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
	Dollar Rec. Materials Credit	73	74	76	78	79	81	82	84	86	87	89	91	93	94	96	98
0 Percent	Percent RDF Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dollar RDF Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Percent Compost Credit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dollar Compost Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Revenue Credits To Metro	4,116	5,655	5,826	5,995	6,351	6,703	6,864	7,582	8,107	8,259	8,775	9,104	9,429	10,291	10,786	11,098
TOTAL CREDITS/NET REVENUE TO METRO																	
	Subtotal - Revenue Credits	4,116	5,655	5,826	5,995	6,351	6,703	6,864	7,582	8,107	8,259	8,775	9,104	9,429	10,291	10,786	11,098
933,902 \$/Year	Interest Income on Funds (1)	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934
	Total Credits/Net Revenues	5,049	6,589	6,760	6,927	7,285	7,637	7,798	8,516	9,041	9,193	9,709	10,038	10,363	11,225	11,720	12,032
	Dollars Per Ton (t)	14.43	18.83	19.31	19.80	20.81	21.82	22.28	24.33	25.83	26.27	27.74	28.68	29.61	32.07	33.49	34.38

1. Based on a Debt Service Reserve Fund of \$11.112 million, plus a \$2 million Reserve and Contingency Fund, both at a 7 percent interest rate, compounded semi-annually.

PORTLAND METRO PROJECT - PAGE TWO
COMPUSTION ENGINEERING, INC.

350,000 TBY REFUSE DERIVED FUEL FACILITY PROPOSAL-BASE-RDF

PORTLAND METRO RESOURCE RECOVERY PROJECT - BASE CASE REVENUE AND EXPENSE FORECAST

(1000, Except Where Otherwise Specified)

1986 Dollars			OPERATING PERIOD YEAR																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
			1991	1992	1993	1994	1995	1996	1997	1999	1999	2000	2001	2002	2003	2004	2005	2006	
COSTS																			
Debt Service On Bonds			11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	
OPERATING & MAINTENANCE COST																			
1.00 Inflation	2,618,850	1986\$	Personnel	3,155	3,281	3,413	3,549	3,691	3,839	3,992	4,152	4,318	4,491	4,670	4,857	5,051	5,254	5,464	5,682
	264,540	1986\$	Utilities (Natural Gas/Other)	319	331	345	359	373	388	403	419	436	454	472	491	510	531	552	574
	723,500	1986\$	Facility Maintenance	872	907	943	980	1,020	1,061	1,103	1,147	1,193	1,241	1,290	1,342	1,396	1,451	1,509	1,570
	1,365,900	1986\$	Processing Equip. Maintenance	1,646	1,711	1,780	1,851	1,925	2,002	2,082	2,166	2,252	2,342	2,436	2,533	2,635	2,740	2,850	2,964
	0	1986\$	Building Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	823,350	1986\$	Contract Services	992	1,032	1,073	1,116	1,160	1,207	1,255	1,305	1,358	1,412	1,468	1,527	1,588	1,652	1,718	1,786
	0	1986\$	Equipment Rental	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1,198,000	1986\$	Equipment Replacement Fund	1,443	1,501	1,561	1,624	1,688	1,756	1,826	1,899	1,975	2,054	2,136	2,222	2,311	2,403	2,499	2,599
Total O & M Costs			8,426	8,763	9,114	9,479	9,858	10,252	10,662	11,089	11,532	11,993	12,473	12,972	13,491	14,031	14,592	15,175	
PASS THROUGH COSTS TO METRO																			
	1,547,715	1986\$	Property Tax	0	392	815	1,271	1,762	2,291	2,863	2,478	2,577	2,680	2,787	2,899	3,015	3,135	3,261	3,391
	371,550	1986\$	Raw Materials	448	466	484	504	524	545	566	589	613	637	663	689	717	745	775	806
	350,000	1986\$	Insurance Premium	422	439	456	474	493	513	534	555	577	600	624	649	675	702	730	759
	33,000	1986\$	Site Lease	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
	475,760	1986\$	Electricity/Water/Sewer	573	596	620	645	671	697	725	754	784	816	848	882	918	954	993	1,032
	0	1986\$	District Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1986\$	Trustees Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1986\$	Metro Administration Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1986\$	Office Supplies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residue/RDF/Compost Costs																			
10 Miles	10 Miles	0.60 \$/Ton	Residue Hauling (10 miles)	678	705	733	762	793	825	858	892	928	965	1,003	1,043	1,085	1,129	1,174	1,221
		20.00 \$/Ton	Residue Disposal	2,257	2,350	2,444	2,542	2,643	2,747	2,859	2,973	3,092	3,216	3,345	3,478	3,617	3,762	3,913	4,069
		4.00 \$/Ton	RDF Transportation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		3.75 \$/Ton	Compost Transportation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass Through Costs			4,413	4,980	5,585	6,231	6,919	7,653	8,457	9,274	10,104	10,947	11,803	12,672	13,555	14,454	15,369	16,299	17,244
INDIRECT OPERATING COSTS																			
	0	1986\$	Management Fee	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1986\$	Return On Equity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	Percent	Revenue Sharing To Contractor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Indirect Operating Costs			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL COSTS																			
Facility Operating Costs (F.O.C.)			12,839	13,743	14,699	15,709	16,777	17,905	18,620	19,363	20,136	20,940	21,777	22,646	23,551	24,492	25,470	26,487	
Dollars Per Ton Accepted			36.68	39.27	42.09	44.88	47.93	51.16	53.20	55.32	57.53	59.83	62.22	64.70	67.29	69.98	72.77	75.68	
Debt Service And F.O.C. Costs			24,485	25,390	26,346	27,356	28,424	29,552	30,767	31,010	31,783	32,597	33,424	34,293	35,199	36,139	37,117	38,134	
Dollars Per Ton Accepted			67.96	72.54	75.27	78.16	81.21	84.43	85.48	88.69	90.81	93.11	95.50	97.99	100.57	103.25	106.05	108.96	
SERVICE FEE TO METRO																			
350,000	350,000	410 kWh/Ton	Gross Service Fee Dollars	19,437	18,801	19,586	20,427	21,139	21,915	22,469	22,494	22,742	23,395	23,715	24,256	24,835	24,914	25,397	26,103
Plus Metro Shortfall Payments			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Service Fee Dollars			19,437	18,801	19,586	20,427	21,139	21,915	22,469	22,494	22,742	23,395	23,715	24,256	24,835	24,914	25,397	26,103	
Net Dollars Per Ton (\$)			55.53	53.72	55.95	58.36	60.40	62.61	64.20	64.27	64.98	65.84	67.76	69.30	70.96	71.18	72.56	74.58	
1.00 Disc. Rate																			
Deflated Value/Ton (1997\$)			47.47	44.15	44.23	44.35	44.13	43.99	43.37	41.75	40.59	40.14	39.13	38.48	37.86	36.54	35.82	35.40	
Avg. Deflated Value (1997\$)			39.58																

SOURCE: GERSHMAN, BRICHAUER & BRATTON, INC. Portland Metro Project; CB622-B Program; JULY 1993-Sep-87

350,000 TPD REFUSE DERIVED FUEL FACILITY PROPOSAL-BASE-MASS BURN

ASSUMPTIONS:	OPERATING PERIOD YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1986 Dollars	YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
FACILITY OPERATING ANALYSIS																	
350,000 Tons	Accept. Waste Received (Tons)	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
0.00 Percent	Bypass Waste (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Accept. Waste Processed (Tons)	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
23 Percent	Residue to Landfill (Tons)	79,755	79,755	79,755	79,755	79,755	79,755	79,755	79,755	79,755	79,755	79,755	79,755	79,755	79,755	79,755	79,755
510 kWh/Ton	Electricity Produced (kwh/Year)	178,500	178,500	178,500	178,500	178,500	178,500	178,500	178,500	178,500	173,560	178,500	178,500	178,500	178,500	178,500	178,500
6 Pounds	Steam Produced (Pounds/Year)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Percent	Materials Recovered (Tons)	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700
0 Percent	RDF Produced (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Compost Produced (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.04 esc. rate	REVENUES																
	Electricity Value (\$/kwh)	21.60	28.99	29.67	30.74	32.58	34.40	35.23	38.95	41.67	42.45	45.12	46.82	48.50	52.97	55.53	57.14
	Total Electricity Revenue	3,749	5,175	5,332	5,487	5,816	6,140	6,289	6,953	7,438	7,577	8,054	8,357	8,657	9,455	9,912	10,199
2.39 \$/1,000 lb	Steam Value (\$/1,000 Pounds)	2.41	3.02	3.15	3.27	3.40	3.54	3.68	3.83	3.98	4.14	4.30	4.48	4.66	4.84	5.04	5.24
	Total Steam Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.00 \$/ton	Recovered Materials Value (\$/Ton)	5.52	5.63	5.74	5.86	5.98	6.09	6.22	6.34	6.47	6.60	6.73	6.86	7.00	7.14	7.28	7.43
1.62 esc. rate	Total Materials Revenue	81	83	84	86	88	90	91	93	95	97	99	101	103	105	107	109
7.50 \$/ton	RDF Value (\$/Ton)	9.12	9.49	9.87	10.26	10.67	11.10	11.55	12.01	12.49	12.99	13.51	14.05	14.61	15.19	15.80	16.43
	Total RDF Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 \$/ton	Compost Value (\$/Ton)	3.65	3.60	3.95	4.11	4.27	4.44	4.62	4.80	5.00	5.20	5.40	5.62	5.84	6.08	6.32	6.57
	Total Compost Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Revenues	3,830	5,257	5,416	5,573	5,903	6,230	6,380	7,046	7,533	7,674	8,153	8,458	8,760	9,560	10,019	10,309
REVENUE CREDITS TO METRO																	
100 Percent	Percent Electricity Credit	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Dollar Electricity Credit	3,749	5,175	5,332	5,487	5,816	6,140	6,289	6,953	7,438	7,577	8,054	8,357	8,657	9,455	9,912	10,199
0 Percent	Percent Steam Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dollar Steam Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Percent	Percent Rec. Materials Credit	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
	Dollar Rec. Materials Credit	73	74	76	78	79	81	82	84	86	87	89	91	93	94	96	98
0 Percent	Percent RDF Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dollar RDF Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Percent Compost Credit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dollar Compost Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Revenue Credits To Metro	3,822	5,249	5,408	5,565	5,895	6,221	6,371	7,036	7,524	7,665	8,143	8,448	8,750	9,550	10,006	10,298
TOTAL CREDITS/NET REVENUE TO METRO																	
	Subtotal - Revenue Credits	3,822	5,249	5,408	5,565	5,895	6,221	6,371	7,036	7,524	7,665	8,143	8,448	8,750	9,550	10,006	10,298
954,878 \$/year	Interest Income on Funds (1)	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955
	Total Credits/Net Revenues	4,776	6,204	6,363	6,519	6,849	7,176	7,326	7,991	8,479	8,619	9,098	9,403	9,705	10,505	10,963	11,253
	Dollars Per Ton (1)	13.65	17.73	18.18	18.63	19.57	20.50	20.93	22.63	24.22	24.63	25.99	26.87	27.73	30.01	31.32	32.15

1. Based on a Debt Service Reserve Fund of \$11.406 million, plus a \$2 million Reserve and Contingency Fund, both at a 7 percent interest rate, compounded semi-annually.

350,000 TPF REFUSE DERIVED FUEL FACILITY FROM USAL-BASE-MASS BURN

1986 Dollars		OPERATING PERIOD YEAR	1 1991	2 1992	3 1993	4 1994	5 1995	6 1996	7 1997	8 1998	9 1999	10 2000	11 2001	12 2002	13 2003	14 2004	15 2005	16 2006	
		COSTS																	
		Debt Service On Bonds	12,020	12,020	12,020	12,020	12,020	12,020	12,020	12,020	12,020	12,020	12,020	12,020	12,020	12,020	12,020	12,020	
		OPERATING & MAINTENANCE COST																	
1.04 Inflation		Personnel	3,337	3,471	3,610	3,754	3,904	4,060	4,223	4,392	4,567	4,750	4,940	5,138	5,343	5,557	5,779	6,010	
2,776,000 1986\$		Utilities (Natural Gas/Other)	302	314	326	339	353	367	382	397	413	430	447	465	483	503	523	544	
250,500 1986\$		Facility Maintenance	1,149	1,195	1,243	1,293	1,345	1,398	1,454	1,512	1,573	1,635	1,701	1,769	1,840	1,914	1,990	2,070	
934,000 1986\$		Processing Equipmt. Maintenance	611	625	641	657	675	693	713	733	754	776	800	826	854	884	916	950	
507,000 1986\$		Building Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0 1986\$		Contract Services	977	1,016	1,057	1,099	1,143	1,189	1,236	1,286	1,337	1,391	1,446	1,504	1,564	1,627	1,692	1,760	
811,000 1986\$		Equipment Rental	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0 1986\$		Equipment Replacement Fund	1,204	1,232	1,302	1,354	1,408	1,464	1,523	1,584	1,647	1,713	1,782	1,853	1,927	2,004	2,084	2,168	
999,000 1986\$		Total O & M Costs	7,560	7,863	8,198	8,526	8,867	9,222	9,591	9,975	10,374	10,789	11,220	11,669	12,136	12,621	13,126	13,651	
		PASS THROUGH COSTS TO METRO																	
1,682,985 1986\$		Property Tax	0	426	886	1,262	1,916	2,491	2,591	2,695	2,802	2,914	3,031	3,152	3,278	3,409	3,546	3,688	
597,000 1986\$		Raw Materials	719	748	778	809	841	875	910	946	984	1,024	1,065	1,107	1,152	1,198	1,246	1,295	
350,000 1986\$		Insurance Premium	422	439	456	474	493	513	534	555	577	600	624	649	675	702	730	759	
33,000 1986\$		Site Lease	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	
450,500 1986\$		Electricity/Water/Sewer	543	564	587	611	635	660	687	714	743	773	803	836	869	904	940	977	
0 1986\$		District Assesment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0 1986\$		Trustees Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0 1986\$		Metro Administration Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0 1986\$		Office Supplies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Residue/RF/Compost Costs																	
10 Miles	10 Miles	Residue Hauling (10 miles)	582	605	630	655	681	706	737	766	797	829	862	896	932	969	1,008	1,049	
0.20 \$/Ton		Residue Disposal	1,941	2,018	2,097	2,183	2,270	2,361	2,456	2,554	2,656	2,762	2,873	2,988	3,107	3,231	3,361	3,495	
2.00 \$/Ton		RF Transportation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4.00 \$/Ton		Compost Transportation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3.75 \$/Ton		Total Pass Through Costs	4,240	4,634	5,469	6,147	6,870	7,642	7,947	8,263	8,592	8,935	9,291	9,661	10,046	10,447	10,863	11,296	
		INDIRECT OPERATING COSTS																	
0 1986\$		Management Fee	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0 1986\$		Return On Equity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0 Percent		Revenue Sharing To Contractor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Total Indirect Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		TOTAL COSTS																	
		Facility Operating Costs (F.O.C.)	11,819	12,717	13,667	14,673	15,738	16,864	17,537	18,238	18,956	19,723	20,511	21,330	22,182	23,068	23,989	24,947	
		Dollars Per Ton Accepted	33.77	36.33	39.05	41.92	44.97	48.18	50.11	52.11	54.19	56.35	58.60	60.94	63.38	65.91	68.54	71.28	
		Debt Service And F.O.C. Costs	23,629	24,737	25,887	27,083	27,758	28,664	29,557	30,258	30,936	31,743	32,531	33,350	34,202	35,088	36,009	36,967	
		Dollars Per Ton Accepted	66.11	70.68	73.39	76.27	79.31	82.53	84.45	86.45	88.53	90.69	92.95	95.29	97.72	100.25	102.68	105.62	
		SERVICE FEE TO METRO																	
350,000	350,000	Gross Service Fee Dollars	19,063	18,533	19,324	20,174	20,908	21,708	22,332	22,266	22,507	23,124	23,433	23,947	24,447	24,583	25,046	25,715	
		Plus Metro Shortfall Payments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Net Service Fee Dollars	19,063	18,533	19,324	20,174	20,908	21,708	22,332	22,266	22,507	23,124	23,433	23,947	24,447	24,583	25,046	25,715	
		Net Dollars Per Ton (\$)	54.47	52.95	55.21	57.64	59.74	62.02	63.52	63.62	64.31	66.07	66.95	68.42	69.99	70.24	71.56	73.47	
1.04 Disc. Rate		Deflated Value/Ton (1987\$)	46.56	45.52	43.64	43.80	43.65	43.58	42.91	41.33	40.17	39.68	38.66	37.99	37.37	36.66	35.32	34.87	
		Ave. Deflated Value/Ton(1987\$)	39.66																

PORTLAND METRO PROJECT - PAGE ONE
 FLUOR/SOUTHERN ELECTRIC INTERNATIONAL/RILEY/TAKUMA
 350,000 TPY MASS BURN FACILITY PROPOSAL-BASE

PORTLAND METRO RESOURCE RECOVERY PROJECT - BASE CASE REVENUE AND EXPENSE FORECAST
 (\$000, Except Where Otherwise Specified)

ASSUMPTIONS:	OPERATING PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1986 Dollars	YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
FACILITY OPERATING ANALYSIS																	
350,000 Tons	Accept. Waste Received (Tons)	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
0.00 Percent	Bypass Waste (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Percent	Accept. Waste Processed (Tons)	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
450 kWh/Ton	Residue to Landfill (Tons)	79,050	79,050	79,050	79,050	79,050	79,050	79,050	79,050	79,050	79,050	79,050	79,050	79,050	79,050	79,050	79,050
0.00 Pounds/Lb	Electricity Produced (kWh/Year)	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500	157,500
4 Percent	Steam Produced (Mlbs/Year)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Materials Recovered (Tons)	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000
0 Percent	RDF Produced (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Compost Produced (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.04 esc. rate	REVENUES																
	Electricity Value (\$/kWh)	21.00	28.99	29.87	30.74	32.58	34.40	35.23	38.95	41.67	42.45	45.12	46.82	48.50	52.97	55.53	57.14
	Total Electricity Revenue	3,308	4,566	4,705	4,842	5,131	5,418	5,549	6,135	6,563	6,688	7,106	7,374	7,639	8,343	8,746	9,000
2.39 \$/1,000lb	Steam Value (\$/1,000 Pounds)	2.91	3.02	3.14	3.27	3.40	3.54	3.68	3.82	3.98	4.14	4.30	4.47	4.65	4.84	5.03	5.23
	Total Steam Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.00 \$/Ton	Recovered Materials Value (\$/Ton)	3.31	3.38	3.45	3.51	3.59	3.66	3.73	3.80	3.88	3.96	4.04	4.12	4.20	4.28	4.37	4.46
1.02 esc. rate	Total Materials Revenue	46	47	48	49	50	51	52	53	54	55	57	58	59	60	61	62
7.50 \$/Ton	RDF Value (\$/Ton)	9.12	9.49	9.87	10.26	10.67	11.10	11.55	12.01	12.49	12.99	13.51	14.05	14.61	15.19	15.80	16.43
	Total RDF Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 \$/Ton	Compost Value (\$/Ton)	3.65	3.80	3.95	4.11	4.27	4.44	4.62	4.80	5.00	5.20	5.40	5.62	5.84	6.08	6.32	6.57
	Total Compost Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Revenues	3,354	4,613	4,753	4,891	5,182	5,469	5,601	6,188	6,617	6,741	7,163	7,432	7,698	8,403	8,807	9,062
REVENUE CREDITS TO METRO																	
100 Percent	Percent Electricity Credit	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Dollar Electricity Credit	3,308	4,566	4,705	4,842	5,131	5,418	5,549	6,135	6,563	6,688	7,106	7,374	7,639	8,343	8,746	9,000
0 Percent	Percent Steam Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dollar Steam Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 Percent	Percent Rec. Materials Credit	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	Dollar Rec. Materials Credit	46	47	48	49	50	51	52	53	54	55	57	58	59	60	61	62
0 Percent	Percent RDF Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dollar RDF Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Percent Compost Credit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dollar Compost Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Revenue Credits To Metro	3,354	4,613	4,753	4,891	5,182	5,469	5,601	6,188	6,617	6,741	7,163	7,432	7,698	8,403	8,807	9,062
TOTAL CREDITS/NET REVENUE TO METRO																	
	Subtotal - Revenue Credits	3,354	4,613	4,753	4,891	5,182	5,469	5,601	6,188	6,617	6,741	7,163	7,432	7,698	8,403	8,807	9,062
1,019,443 \$/Year	Interest Income on Funds (1)	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019
	Total Credits/Net Revenues	4,373	5,633	5,772	5,910	6,201	6,489	6,620	7,207	7,637	7,761	8,182	8,451	8,717	9,422	9,827	10,081
	Dollars Per Ton (1)	12.50	16.09	16.49	16.89	17.72	18.54	18.92	20.59	21.82	22.17	23.38	24.15	24.91	26.92	28.08	28.80

1. Based on a \$12.313 million Debt Service Reserve Fund, and a \$2 million Reserve and Contingency Fund, both at a 7 percent interest rate, compounded semi-annually.

PORTLAND METRO PROJECT - PAGE TWO
 FLUOR/SOUTHERN ELECTRIC INTERNATIONAL/RILEY/TAKUMA
 350,000 TPY MASS BURN FACILITY PROPOSAL-BASE

PORTLAND METRO RESOURCE RECOVERY PROJECT - BASE CASE REVENUE AND EXPENSE FORECAST
 (\$000, Except Where Otherwise Specified)

1986 Dollars			OPERATING PERIOD															
YEAR			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
COSTS																		
Debt Service On Bonds			14,197	14,198	14,197	14,198	14,199	14,198	14,198	14,194	14,200	14,196	14,199	14,199	14,193	14,201	14,196	14,199
OPERATING & MAINTENANCE COST																		
1.04 Inflation	1,660,000	1986\$	2,020	2,100	2,184	2,272	2,363	2,457	2,555	2,658	2,764	2,875	2,990	3,109	3,234	3,363	3,497	3,637
	240,000	1986\$	292	304	316	328	342	355	369	384	400	416	432	450	467	486	506	526
	896,000	1986\$	1,090	1,134	1,179	1,226	1,275	1,326	1,379	1,435	1,492	1,552	1,614	1,678	1,745	1,815	1,888	1,963
	298,000	1986\$	363	377	392	408	424	441	459	477	496	516	537	558	580	604	628	653
	25,000	1986\$	30	32	33	34	36	37	38	40	42	43	45	47	49	51	53	55
	368,000	1986\$	448	466	484	504	524	545	567	589	613	637	663	689	717	746	775	805
	300,000	1986\$	365	380	395	411	427	444	462	480	500	520	540	562	584	608	632	657
	85,000	1986\$	103	108	112	116	121	126	131	136	142	147	153	159	166	172	179	186
	1,085,000	1986\$	1,320	1,373	1,428	1,485	1,544	1,606	1,670	1,737	1,807	1,879	1,954	2,032	2,113	2,198	2,286	2,377
	0	1986\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total O & M Costs			6,031	6,272	6,523	6,784	7,055	7,338	7,631	7,936	8,254	8,584	8,927	9,284	9,656	10,042	10,444	10,861
PASS THROUGH COSTS TO METRO																		
	1,772,220	1986\$	0	448	933	1,455	2,018	2,623	2,728	2,837	2,951	3,069	3,192	3,319	3,452	3,590	3,734	3,883
	33,000	1986\$	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
	239,000	1986\$	291	302	315	327	340	354	368	383	398	414	430	448	466	484	504	524
	400,000	1986\$	487	506	526	547	569	592	616	640	666	693	720	749	779	810	843	876
	0	1986\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1986\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1986\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residue/RDF/Compost Costs																		
	0	0.60 \$/Ton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Miles	0 Miles	20.00 \$/Ton	1,924	2,000	2,080	2,164	2,250	2,340	2,434	2,531	2,632	2,738	2,847	2,961	3,080	3,203	3,331	3,464
		4.00 \$/Ton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0.00 \$/Ton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pass Through Costs			2,734	3,290	3,887	4,526	5,211	5,942	6,179	6,425	6,680	6,946	7,223	7,510	7,809	8,121	8,444	8,780
INDIRECT OPERATING COSTS																		
	200,000	Dollars	243	253	263	274	285	296	308	320	333	346	360	375	390	405	421	438
	1,100,000	Dollars	1,338	1,392	1,448	1,505	1,566	1,628	1,693	1,761	1,832	1,905	1,981	2,060	2,143	2,228	2,318	2,410
	0	Dollars	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Indirect Operating Costs			1,582	1,645	1,711	1,779	1,850	1,924	2,001	2,081	2,165	2,251	2,341	2,435	2,532	2,634	2,739	2,848
TOTAL COSTS																		
Facility Operating Costs (F.O.C.)			10,347	11,208	12,121	13,090	14,116	15,204	15,811	16,442	17,099	17,781	18,491	19,230	19,997	20,796	21,627	22,490
Dollars Per Ton Accepted			29.56	32.02	34.63	37.40	40.33	43.44	45.17	46.98	48.85	50.80	52.83	54.94	57.14	59.42	61.79	64.26
Debt Service And F.O.C. Costs			24,544	25,406	26,318	27,287	28,316	29,403	30,009	30,636	31,298	31,977	32,690	33,429	34,191	34,977	35,823	36,689
Dollars Per Ton Accepted			70.12	72.59	75.20	77.96	80.90	84.01	85.74	87.53	89.42	91.36	93.40	95.51	97.69	99.99	102.35	104.83
SERVICE FEE TO METRO																		
	350,000	350,000	20,170	19,773	20,546	21,377	22,115	22,914	23,388	23,429	23,662	24,216	24,508	24,978	25,474	25,975	25,996	26,608
		410 kWh/Ton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Service Fee Dollars			20,170	19,773	20,546	21,377	22,115	22,914	23,388	23,429	23,662	24,216	24,508	24,978	25,474	25,975	25,996	26,608
Net Dollars Per Ton (\$)			57.63	56.49	58.70	61.08	63.18	65.47	66.82	66.94	67.60	69.19	70.02	71.37	72.78	73.07	74.27	76.02
1.04 Disc. Rate			49.26	46.43	46.39	46.41	46.17	46.00	45.14	43.48	42.23	41.55	40.44	39.63	38.86	37.51	36.66	36.08
Ave Deflated Value/Ton (19876)			40.92															

PORTLAND METRO PROJECT - PAGE ONE
 SCHWITZER STEEL PRODUCTS COMPANY/DGDEM MARTIN SYSTEMS, INC.
 350,000 TPY MASS BURN FACILITY PROPOSAL-BASE

PORTLAND METRO RESOURCE RECOVERY PROJECT - BASE CASE REVENUE AND EXPENSE FORECAST
 (0000, Except Where Otherwise Specified)

ASSUMPTIONS:	OPERATING PERIOD YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1986 Dollars	YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2066
FACILITY OPERATING ANALYSIS																	
350,000 Tons	Accept. Waste Received (Tons)	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
0.00 Percent	Bypass Waste (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Accept. Waste Processed (Tons)	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
21 Percent	Residue to Landfill (Tons)	73,500	73,500	73,500	73,500	73,500	73,500	73,500	73,500	73,500	73,500	73,500	73,500	73,500	73,500	73,500	73,500
470 kWh/Ton	Electricity Produced (kWh/Year)	164,500	164,500	164,500	164,500	164,500	164,500	164,500	164,500	164,500	164,500	164,500	164,500	164,500	164,500	164,500	164,500
0 Pounds	Steam Produced (Pounds/Year)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Percent	Materials Recovered (Tons)	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700
0 Percent	RDF Produced (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Compost Produced (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.04 esc. rate	REVENUES																
	Electricity Value (\$/kWh)	21.00	20.99	20.87	20.74	20.58	20.40	20.23	20.05	19.87	19.69	19.52	19.35	19.18	19.01	18.84	18.67
	Total Electricity Revenue	3,455	4,769	4,914	5,057	5,359	5,659	5,795	6,407	6,855	6,983	7,422	7,702	7,978	8,714	9,135	9,400
2.39 \$/1,000lb	Steam Value (\$/1,000 Pounds)	2.91	3.02	3.15	3.27	3.40	3.54	3.68	3.83	3.98	4.14	4.30	4.48	4.66	4.84	5.04	5.24
	Total Steam Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.00 \$/Ton	Recovered Materials Value (\$/Ton)	3.31	3.38	3.45	3.51	3.59	3.66	3.73	3.80	3.88	3.96	4.04	4.12	4.20	4.28	4.37	4.46
1.02 esc. rate	Total Materials Revenue	49	50	51	52	53	54	55	56	57	58	59	61	62	63	64	66
7.50 \$/Ton	RDF Value (\$/Ton)	9.12	9.49	9.87	10.26	10.67	11.10	11.55	12.01	12.49	12.99	13.51	14.05	14.61	15.19	15.80	16.43
	Total RDF Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 \$/Ton	Compost Value (\$/Ton)	3.65	3.80	3.95	4.11	4.27	4.44	4.62	4.80	5.00	5.20	5.40	5.62	5.84	6.08	6.32	6.57
	Total Compost Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Revenues	3,503	4,819	4,964	5,108	5,412	5,713	5,850	6,463	6,912	7,041	7,482	7,762	8,040	8,777	9,199	9,465
REVENUE CREDITS TO METRO																	
90 Percent	Percent Electricity Credit	90	88	86	84	82	80	80	80	80	80	80	80	80	80	80	80
In 1991	Dollar Electricity Credit	3,109	4,197	4,226	4,248	4,395	4,527	4,636	5,126	5,484	5,586	5,938	6,162	6,383	6,971	7,308	7,520
0 Percent	Percent Steam Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dollar Steam Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Percent Rec. Materials Credit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dollar Rec. Materials Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Percent RDF Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dollar RDF Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0 Percent	Percent Compost Credit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dollar Compost Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Revenue Credits To Metro	3,109	4,197	4,226	4,248	4,395	4,527	4,636	5,126	5,484	5,586	5,938	6,162	6,383	6,971	7,308	7,520
TOTAL CREDITS/NET REVENUE TO METRO																	
	Subtotal - Revenue Credits	3,109	4,197	4,226	4,248	4,395	4,527	4,636	5,126	5,484	5,586	5,938	6,162	6,383	6,971	7,308	7,520
1,024,643 \$/Year	Interest Income on Funds (1)	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025
	Total Credits/Net Revenues	4,134	5,221	5,250	5,272	5,419	5,552	5,661	6,150	6,509	6,611	6,962	7,186	7,407	7,995	8,332	8,544
	Dollars Per Ton (1)	11.81	14.92	15.00	15.06	15.48	15.86	16.17	17.57	18.60	18.89	19.89	20.53	21.16	22.84	23.81	24.41

1. Based on a \$12.386 million Debt Service Reserve Fund, and a \$2 million Reserve and Contingency Fund, both at a 7 percent interest rate, compounded semi-annually.

PORTLAND METRO PROJECT - PAGE TWO
 SCHWITZER STEEL PRODUCTS COMPANY/ODGEN MARTIN SYSTEMS, INC.
 350,000 TPY MASS BURN FACILITY PROPOSAL-BASE

PORTLAND METRO RESOURCE RECOVERY PROJECT - BASE CASE REVENUE AND EXPENSE FORECAST
 (\$000, Except Where Otherwise Specified)

1987	1987 ASSUMPTIONS:	OPERATING PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1986 Dollars	YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
		COSTS																
		Debt Service On Bonds	14,057	14,054	14,056	14,055	14,055	14,052	14,055	14,056	14,055	14,056	14,054	14,055	14,055	14,059	14,051	14,057
	1.04 Inflation	OPERATING & MAINTENANCE COST																
	1,635,000 1986\$	Personnel	1,989	2,069	2,152	2,238	2,327	2,420	2,517	2,618	2,722	2,831	2,945	3,062	3,185	3,312	3,445	3,582
	660,000 1986\$	Utilities	803	835	869	903	939	977	1,016	1,057	1,099	1,143	1,189	1,236	1,286	1,337	1,391	1,446
	1,548,000 1986\$	Facility Maintenance	1,883	1,959	2,037	2,119	2,203	2,291	2,383	2,478	2,578	2,681	2,788	2,899	3,015	3,136	3,261	3,392
	439,000 1986\$	Processing Eqpt. Maintenance	534	555	578	601	625	650	676	703	731	760	791	822	855	889	925	962
	91,000 1986\$	Building Maintenance	111	115	120	125	130	135	140	146	152	158	164	170	177	184	192	199
	947,000 1986\$	Raw Materials	1,152	1,198	1,246	1,296	1,348	1,402	1,458	1,516	1,577	1,640	1,705	1,774	1,845	1,918	1,995	2,075
	409,000 1986\$	Contract Services	498	518	538	560	582	605	630	655	681	708	737	766	797	829	862	896
	19,000 1986\$	Equipment Rental	23	24	25	26	27	28	29	30	32	33	34	36	37	38	40	42
	625,000 1986\$	Equipment Replacement Fund	760	791	822	855	890	925	962	1,001	1,041	1,082	1,126	1,171	1,217	1,266	1,317	1,369
	385,000 1986\$	Insurance Premium	468	487	507	527	548	570	593	616	641	667	693	721	750	780	811	844
		Total O & M Costs	8,222	8,551	8,893	9,249	9,619	10,003	10,404	10,820	11,253	11,703	12,171	12,658	13,164	13,690	14,238	14,808
		PASS THROUGH COSTS TO METRO																
	1,712,382 1986\$	Property Tax	0	433	901	1,406	1,950	2,535	2,636	2,742	2,851	2,965	3,084	3,207	3,336	3,469	3,608	3,752
	33,000 1986\$	Site Lease	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
	0 1986\$	District Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0 1986\$	Trustees Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0 1986\$	Metro Administration Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0 1986\$	Office Supplies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1986\$	Residue/RDF/Compost Costs																
	0.60 \$/Ton	Residue Hauling (10 miles)	537	558	580	604	628	653	679	706	734	764	794	826	859	893	929	966
	20.00 \$/Ton	Residue Disposal	1,720	1,768	1,860	1,934	2,012	2,092	2,176	2,263	2,354	2,448	2,546	2,647	2,753	2,863	2,978	3,097
	4.00 \$/Ton	RDF Transportation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3.75 \$/Ton	Compost Transportation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total Pass Through Costs	2,269	2,813	3,375	3,977	4,622	5,313	5,524	5,744	5,972	6,210	6,457	6,714	6,981	7,259	7,548	7,848
		INDIRECT OPERATING COSTS																
	0 Dollars	Management Fee	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0 Dollars	Return On Equity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0 Percent	Revenue Sharing To Contractor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total Indirect Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		TOTAL COSTS																
		Facility Operating Costs (F.O.C.)	10,511	11,364	12,268	13,226	14,241	15,316	15,928	16,563	17,225	17,912	18,627	19,371	20,145	20,949	21,786	22,656
		Dollars Per Ton Accepted	30.03	32.47	35.05	37.79	40.69	43.76	45.51	47.32	49.21	51.18	53.22	55.35	57.56	59.85	62.25	64.73
		Debt Service And F.O.C. Costs	24,568	25,418	26,324	27,281	28,296	29,369	29,983	30,619	31,280	31,968	32,681	33,426	34,200	35,008	35,837	36,713
		Dollars Per Ton Accepted	70.19	72.62	75.21	77.95	80.85	83.91	85.67	87.48	89.37	91.34	93.37	95.50	97.71	100.02	102.39	104.89
		SERVICE FEE TO METRO																
	350,000 350,000	Gross Service Fee Dollars	20,434	20,197	21,074	22,009	22,877	23,817	24,322	24,469	24,771	25,357	25,719	26,240	26,793	27,013	27,505	28,169
	410 kWh/Ton	Plus Metro Shortfall Payments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net Service Fee Dollars	20,434	20,197	21,074	22,009	22,877	23,817	24,322	24,469	24,771	25,357	25,719	26,240	26,793	27,013	27,505	28,169
		Net Dollars Per Ton (b)	58.38	57.71	60.21	62.88	65.36	68.05	69.49	69.91	70.78	72.45	73.48	74.97	76.55	77.18	78.59	80.48
	1.04 Disc. Rate	Deflated Value/Ton (1987\$)	49.91	47.43	47.59	47.79	47.76	47.81	46.95	45.41	44.21	43.51	42.43	41.63	40.87	39.62	38.79	38.20
		Ave. Deflated Value/Ton (1987\$)	42.74															

SOURCE: BERSHMAN, BRICKNER & BRATTON, INC. Portland Metro Project: CB622-B 8 Programmers: JVLK 826-Aug-87



METRO

2000 SW First Avenue
Portland, OR 97201-5398
(503) 221-1646
Fax 241-7417

January 10, 1989

The Honorable Mike Ragsdale
Presiding Officer
Metropolitan Service District
2000 SW First Ave.
Portland, OR 97201

Dear Mike:

Executive Officer
Rena Cusma

Metro Council

Mike Ragsdale
Presiding Officer
District 1

Corky Kirkpatrick
Deputy Presiding
Officer
District 4

Richard Waker
District 2

Jim Gardner
District 3

Tom DeJardin
District 5

George Van Bergen
District 6

Sharron Kelley
District 7

Mike Bonner
District 8

Tanya Collier
District 9

Larry Cooper
District 10

David Knowles
District 11

Gary Hansen
District 12

In the past 15 months, Metro has been involved in negotiations with Combustion Engineering (C-E) for a refuse-derived fuel plant, pursuant to Resolution 87-809 of September 22, 1987.

During that time, C-E was unsuccessful in siting their facility in Columbia County, Oregon. The company has not been successful in gaining approval for a site in Cowlitz County, Washington either.

The Washington Department of Ecology has also required that counties revise their solid waste management plans before approving waste-to-energy facilities. The length of this process makes it impossible for Metro to enter into a final contract and finance the facility before the end of 1989. As you are aware, at the end of the year Metro loses its ability to finance the facility with tax-free industrial revenue bonds. Without the savings afforded by these tax-exempt bonds, a waste-to-energy project would be significantly more expensive.

Further, C-E has experienced significant technical setbacks at its Hartford, Connecticut plant, in particular a recent boiler outage there has caused the company to suffer financial obligations in order to correct these difficulties.


I therefore believe it is prudent to open negotiations with the second-ranked vendor, Schnitzer/Ogden Martin. Section three of the Resolution 87-809 authorizes the Executive Officer to pursue those negotiations without prior consent of the Council.

Nonetheless, given the time that has elapsed since we initiated negotiations and the fact that there are now four new members on the council, I believe it is important that the Council reaffirm its support for a

waste to energy project before I proceed to open negotiations with Schnitzer/Ogden Martin.

I am forwarding to you a resolution which would provide that reaffirmation. I look forward to working with you and the Council on this vital issue.

Sincerely,


Rena Cusma
Executive Officer

CC: Councilor Gary Hansen

Vote: A vote on the motion resulted in all nine Councilors present voting aye. Councilors Bonner, Cooper and Ragsdale were absent.

The motion carried and the Consent Agenda was approved.

8. EXECUTIVE SESSION

Presiding Officer Waker called an executive session at 5:45 p.m. under the authority of ORS 192.660(1)(e), relating to the purchase of real property for the Oregon Convention Center; and also under ORS 192.660(1)(h), for the purpose of discussing litigation matters with General Counsel Cooper regarding the Clackamas Transfer & Recycling Center. All Councilors except Cooper and Ragsdale were present at the session. Richard Owings, Solid Waste Director, was present during the discussion regarding CTRC. The session was held in the Executive Management Conference Room.

Presiding Officer Waker called the meeting back into regular session at 6:05 p.m.

Convention Center Property Aquisition

Motion: Councilor Van Bergen moved, seconded by Councilor DeJardin, to approve the recommendation of the Portland Development Commission relating to the purchase of real property for the Oregon Convention Center.

Vote: A vote on the motion resulted in all ten Councilors present voting aye. Councilors Cooper and Ragsdale were absent.

The motion carried.

Presiding Officer Waker stated that the second item discussed in Executive Session had to do with litigation matters relating to the CTRC and the Council need not take any action on the matter.

7. Consideration of Resolution No. 87-809, for the Purpose of Authorizing Entry into Memorandum of Understanding Negotiations with Systems Contractors Mass Composting and Refuse-Derived Fuel Incineration Systems.

Presiding Officer Waker stated that on September 10, 1987, the Executive Officer announced her recommendation for proposers with which to proceed into negotiations for Memorandums of Understanding to construct resource recovery facilities. On September 15, 1987, the Council Solid Waste Committee heard presentations by three resource recovery project proposers and received public testimony.

Presiding Officer Waker explained to the audience how tonight's proceeding would be conducted.

Councilor Jim Gardner stated that the Council should have received a copy of a memo explaining the Solid Waste Committee's recommendation. He added the Committee had a strong concern that any garbage burning project the organization would build would be the most environmentally sound project possible. He stated that Mr. Joe Schultz, a St. Helens Port Commissioner, had suggested Metro set up an independent review of the environmental impacts of such a project, focusing particularly on the emissions and ash such a project might generate. It was obvious from the testimony received at the Committee meeting the question of air emissions, particularly dioxins, was causing the most concern. The Committee concurred with Mr. Schultz's recommendation. This recommendation would also include that the independent review not be conducted by Metro, not by consultants that Metro might be contracting with, but by a totally independent and Oregon-based group. Suggestions were that Metro could perhaps turn to the Oregon Health Sciences University and to DEQ for people to serve on the review group. The group could also include residents and local officials of the St. Helens area. Councilor Gardner explained the goal was to have an independent, credible review group give Metro the best answer possible about any environmental impacts a resource recovery project would have. With that addition, the Committee recommended the Council follow the Executive Officer's recommendation about entering into the MOU negotiations both with Combustion Engineering and the Riedel/DANO. He reported the Committee was not unanimous in this recommendation. Councilor Kelley dissented vigorously.

Councilor DeJardin stated that some of the comments made by the other vendors regarding the recommendation were very astute. The Committee also received correspondence from vendors asking very good questions that need to be clarified. He noted staff would respond to those concerns at this meeting.

Councilor Kelley stated she had an amendment to make after the public hearing regarding the process the Council was about to go into, assuming that the Council adopted the Resolution. She wanted the public to understand the Council was concerned about the cost of any kind of mass incineration system and was also concerned about what went into the air. Councilor Kelley said that her amendment, if adopted by the Council, would simply say that any vendor selected has to meet or exceed at least the federal standards and that those standards be examined during the next MOU process.

In response to Councilor Hansen's question Councilor Kelley replied that her amendment would have the Council address the issue of emission standards.

Vendor's Presentations

SCHNITZER/OGDEN

Mr. David Sokol, President & Chief Operating Officer, Member of Board of Directors, Professional Engineer, introduced Mr. Barry Rosen, Vice President of Finance, Schnitzer Steel. Mr. Sokol stated he and Mr. Rosen would speak not only as a vendor in the selection process, but as citizens of the area.

Mr. Sokol read a prepared statement (not given to the Council) that discussed a number of issues that corresponded to the September 10, 1987, evaluation report. Mr. Sokol assured the Council that he personally would see to it that his firm would work cooperatively in working with Metro on the project.

Presiding Officer Waker called for questions. There were none.

FLUOR/SEI

No one came forward.

COMBUSTION ENGINEERING

Michael E. Bray, Vice President, Business Development, read the presentation of Combustion Engineering. A copy of the presentation was submitted for the record. Mr. Bray also submitted a copy of the Environmental Protection Agency (EPA) press release that he had referenced in his presentation.

Presiding Officer Waker called for questions. There were none.

Project Team's Response to Vendor's Statements.

Debbie Allmeyer, Metro Solid Waste Department, introduced members of the resource recovery project team: Mr. Harvey Gershman; Dr. Robert Zier, Vice President, GBB; Ed Einowski, Stoel Rives Boley Jones & Grey, Bond Counsel; Paul Atanasio, Investment Banker; Rebecca Marshall, Government Finance Associates; Dean Gisvold, Transaction Attorney; and Dr. Floyd Hasselriis, Senior Project Engineer, GBB.

Mr. Harvey Gershman read a prepared statement regarding the waste-to-energy proposer evaluation on behalf of the Metro Evaluation Team (a copy was submitted for the record).

Councilor Hansen asked if Mr. Gershman could give size comparisons on nanograms. Dr. Floyd Hasselriis, Senior Project Engineer with GBB, gave an example. Dr. Zier commented on the comparison.

Councilor Hansen asked the team to comment on Combustion Engineering's proposal relating to the number of processing lines and to provide a definition of "significant deviation."

Dean Gisvold responded that CE had not provided a precise definition of "significant." There were a lot of factors to consider and that would be one of the negotiating items when and if the Council decided to go into negotiations with CE.

There were a number of questions from Councilors and discussion with Mr. Gershman, Dr. Zier and Mr. Hasselriis.

Public Hearing

Mr. Ted Stanwood, Warren, Oregon, handed out copies of the Initiative Petition filed in St. Helens, Oregon, and a copy of Ordinance No. 81-3 for regulating disposal of solid waste in Columbia County.

Ms. Estle Harlan, speaking on behalf of the solid waste industry, specifically the Tri-County Council, stated that the solid waste industry's position was to support the system that has the most economic viability. She was encouraged by what she had heard tonight. Ms. Harlan's written testimony was submitted for the record.

Ms. Cherry Hostenstein, representing Fair Share, opposed Resolution No. 87-809.

Ms. Judy Dehen, 2965 N. W. Verde Vista, Portland, Oregon, representing the Sierra Club, handed out copies of a document regarding trash separation and recycling system for the town of East Hampton, New York. Ms. Dehen then discussed the issue of Btu guarantees.

Councilor Hansen commented that the purpose of the negotiations was to get answers -- not to make commitments.

Mr. Richard A. Parrish, 408 S. W. Second Avenue, 406 Governor Building, Portland, Oregon 97204, speaking as a resident of Portland, opposed Resolution No. 87-809 because he thought the action was premature. The Council did not have many of the answers it needed. The answers should be provided before negotiations started in order to negotiate from a position of strength.

Mr. David Reed, staff researcher for Oregon Fair Share, concurred with the request for an independent economic study as well as an environmental study.

Councilor Hansen asked Mr. Reed where he got the figure of \$21 per ton tip fee at Bacona Road. Mr. Reed said it came from the final evaluation report, Table 5.

Councilor Gardner said Mr. Reed had a very valid point that Metro did not know what a new landfill would cost, that the \$21 estimate was already outdated, and that serious questions remained about the Bacon Road landfill site.

Mr. David Phillips, said he was not testifying as chairman of the blue ribbon committee, but as ex-chairman and Solid Waste Administrator for Clackamas County. (Mr. Phillips who was the chair of the blue ribbon committee that originally made a recommendation against RDF technology.) Mr. Phillips stated that it pleased him to see the reduction that has occurred in the tip fee scenario. He recommended that the Council enter into an MOU with CE. Should negotiations reach an impasse, then Metro should negotiate with Schnitzer/Ogden. He feels urged the District to seriously pursue resource recovery.

Mr. John Charles, Executive Director of the Oregon Environmental Council, 2637 S. W. Water Avenue, Portland, stated he was not here as an opponent or proponent, but to offer ideas that might improve the Council position in negotiations; 1) the negotiating should focus on getting an RDF vendor if that is the preferred technology; 2) negotiations should proceed on the assumption that the majority of yard debris would not be burned; and 3) pollution control tax credits should be sought.

Councilor Gardner noted Metro was trying to get to the same end result advocated by Mr. Charles, but in a different manner because the markets had to exist before yard debris could be removed from the wastestream.

Councilor Hansen suggested Mr. Charles send the Council information on the cost-effectiveness of his proposal.

Columbia County Commissioner Michael Sykes testified regarding Oregon's excellent recycling record. "We need to go with the most proven technology possible and try to come up with a plan that the entire region can be proud of and, again, Columbia County has a number of concerns once we enter the MOU stage that they would like to discuss," he said. Commissioner Sykes commended the Council's efforts and hoped the Council goes forward with the MOU phase.

Presiding Officer Waker asked Commissioner Sykes if he thought it more important for Metro to try to landfill or to foster an alternative technologies project. Commissioner Sykes thought both were important.

Ms. Patricia Jensen, Vernonia, Oregon, stated that Metro had spent a lot of money on siting a landfill and on looking at a burner. She wondered what strides could be made if the same money had been spent on recycling and developing markets for recyclables.

There was no further testimony and the hearing was closed.

Council Discussion/Questions of Staff and Consultants

Councilor Kelley requested more information about ash.

Dr. Hasselriis responded, explaining that emission samples had been sent to three laboratories and the state. The state's reading was three times higher than the other laboratories, he said, which showed their testing method was faulty. The EPA did not want to continue with that testing method because it was not reliable. Commercial laboratories took an average reading from many samples and they all passed. EPA indicated that 80 percent of the samples must pass.

Councilor Kelley was concerned that Metro might not know enough to make a responsible decision about the final disposition of ash.

Dr. Hasselriis noted the whole resource recovery industry had suddenly realized the problem. They were finding out if they operated the plants properly, consistently, and controlled things well, the ash came out consistently good. The ash itself was not harmful, he explained, but mixing it incorrectly could be a problem. Metro had to implement the proper system.

Presiding Officer Waker asked staff the cost of continuing negotiations until Metro received information on landfill proposals. Mr. Harvey Gershman commented the decision to authorize MOU negotiations with one firm or two firms would have a bearing on cost.

Presiding Officer Waker asked Mr. Gershman if the resolution would allow the team to negotiate with all the proposers: if CE's proposal did not work out, then the team would negotiate with other vendor(s). The Council, then, could not be assured together who the team would recommend for a final contract.

Mr. Gershman responded that the Council would certainly be briefed along the way, but Presiding Officer Waker's assumption was correct.

Executive Officer Cusma commented the Council had been assured it would be briefed regularly and, if in the event the team moved from one vendor to another the Council would be informed. The recommendation from the Solid Waste Committee gave staff that latitude because of the relatively short time frame and because all proposals were good.

Main Motion: Councilor Knowles moved, seconded by Councilor Gardner, the Council adopt Resolution No. 87-809 as amended by the Solid Waste Committee to include the provision of an independent evaluation of the health effects of the burner in St. Helens.

Councilor Gardner stated that he had an amendment to propose to the resolution that achieved the Solid Waste Committee's recommendation for the independent environmental review.

First Motion to Amend: Councilor Gardner moved, seconded by Councilor Kirkpatrick, to amend Resolution No. 87-809 by adding a fourth "Be it Resolved" paragraph to read:

"4. That Metro will initiate an independent scientific review of the potential environmental and health impacts of a solid waste incineration project for the Metro area; this review will be conducted by Oregon citizens and scientists, including private citizens and public officials of St. Helens and Columbia County, and environmental and public health experts from, for example, Oregon Health Sciences University, Oregon State University, and the Department of Environmental Quality."

Councilor Gardner stated the motion was not meant to be inclusive list, just examples of where Metro could turn for the environmental and public health experts to serve on this panel.

Councilor Gardner thought the study could be completed in 60 days, but he did not want to specifically limit it to any time period. The intent was to have the results of that review by the time MOU negotiations commenced.

Councilor Collier wanted to have a date certain to not hold up the process.

Gardner replied the reason he had not stated a due date was because he wanted the review to be totally independent of Metro.

Discussion continued about a realistic timeline and cost for a health impact review.

Presiding Officer Waker stated that in the interest of expediting the matter perhaps the proposer of the amendment could offer some time certain.

Revision of First Motion to Amend: Councilor Gardner stated that at the end of the sentence, the language "The review should be completed by December 31, 1987." should be added. Councilor Kirkpatrick agreed with the language.

Councilor Kirkpatrick thought the review should start immediately and requested staff submit a proposal for the Solid Waste Committee's review.

Vote on the First Motion to Amend Resolution No. 87-809:

A vote on the motion resulted in:

Ayes: Councilors Bonner, Gardner, Hansen, Kelley,
Kirkpatrick, Knowles, Waker

Nays: Councilors DeJardin, Van Bergen, Collier

Absent: Cooper, Ragsdale

The motion to amend passed.

Presiding Officer Waker stated the Council would now consider the motion to adopt Resolution No. 87-809 as amended.

Second Motion to Amend: Councilor Kelley moved, seconded by Councilor Hansen, to amend the second "Be it Resolved" paragraph to read: "That the Metropolitan Service District will proceed to negotiate a Memorandum of Understanding...those negotiations require the vendor meet or exceed the air emissions standards of the State Department of Environmental Quality."

(Note: as a result of a subsequent suggestion by General Counsel, the last phrase was changed to read "those negotiations require the vendor meet or [exceed] better the air emission standards of the State Department of Environmental Quality."

Councilor Van Bergen commented that the amendment was irrelevant because one could not get a permit to build unless the facility met or exceeded the standards.

Daniel B. Cooper, Metro General Counsel, stated that Councilor Kelley had used the word to "exceed" DEQ standards. He thought she meant "better than." To say "exceeding the standard" would mean one was not meeting them, he explained.

Councilor Hansen reported that at the last Solid Waste Committee meeting there were serious allegations put forward concerning RDF plants and whether they could meet Oregon emissions standards. He had seconded the amendment because he wanted the issue resolved quickly in the negotiation process.

Councilor Gardner stated he had a problem with the amendment language. At the Solid Waste Committee meeting on September 15, Wendy Sims from DEQ explained how that agency set standards for a project. DEQ waited until they received a permit application and

then looked at the best available technology for controlling various emissions before setting standards for that permit. That would result in problems at the start of negotiations if the Council required guarantees to meet a standard that had not yet been determined by the DEQ, he said.

Mr. Harvey Gershman, GBB, explained the negotiating team would work to reach an agreement that the vendor obtain permits. He expected CE would provide the necessary guarantees and commitments as a result of the MOU process. He thought the conditions imposed by the amendment could in essence be met in the MOU but not be determined until the permitting process.

Presiding Officer Waker commented that Metro would not have a downside risk. Mr. Gershman stated that would be the objective and a reasonable policy to state at this time.

Councilor Knowles noted the amendment asked Metro to direct the negotiators to assure that the vendor will meet or exceed the DEQ standards, but in fact because they are set on a case by case basis there were no DEQ standards that applied to this particular project.

Councilor Knowles asked Mr. Gershman if the amendment as proposed would restrict his ability to negotiate the MOU.

Mr. Gershman thought the amendment would assist the team.

Presiding Officer Waker stated that there was a proposed amendment to add a sentence to the bottom of Be It Resolved #2 that says "negotiations require the vendor to meet or better the standards of the state Department of Environmental Quality."

Vote on the Second Motion to Amend: A vote on the amendment resulted in:

Ayes: Councilors Bonner, Collier, DeJardin, Gardner, Hansen, Kelley, Kirkpatrick, Knowles, Waker

Nays: Councilor Van Bergen

Absent: Councilors Cooper and Ragsdale

The motion passed.

Councilor Van Bergen said he would not support the Resolution because the amendments would make it impossible for the team to negotiate a timely, cost-effective project.

Third Motion to Amend: Councilor Bonner moved to delete the third "Be it Resolved" paragraph from Resolution No. 87-809. The motion died for lack of a second.

Presiding Officer Waker said he would not support Resolution No. 87-809 because he agreed with Councilor Van Bergen that the most important thing the Council needed to do right now was to find out the cost of the landfill system before making decisions based on that cost.

Vote on the Main Motion as Amended:

Vote: To adopt Resolution No. 87-809 as amended.

Ayes: Collier, DeJardin, Gardner, Hansen, Kelley, Kirkpatrick, Knowles,

Nays: Bonner, Van Bergen, Waker

Absent: Councilors Cooper and Ragsdale.

The motion passed and Resolution No. 87-809 was adopted as amended.

Presiding Officer Waker called for a 15-minute recess at 9:25 p.m. The Council reconvened at 9:40 p.m.

9. CONTRACTS

9.2 Consideration of an Intergovernmental Agreement with Exposition-Recreation (E-R) Commission for Marketing Services For the Oregon Convention Center

Mr. Tuck Wilson, Convention Center Project Director, introduced Mr. Lee Fehrenkamp, E-R Commission Executive Director. Mr. Wilson stated the contract represented a "mosaic of marketing efforts that will paint the successful picture." The proposed agreement had been reviewed on two occasions by the Convention Center Committee.

Mr. Fehrenkamp explained the convention center should have its own marketing personnel to work hand-in-hand with GPCVA. The GPCVA was doing "the lion's share" of the national advertising and promotional work for the center with the Convention Center Project staff doing regional and local advertising and promotional work.

Presiding Officer Waker noted that the Convention Center Committee had unanimously recommended the Council approve this agreement for services.