



# City of Allentown

**CONFIDENTIAL  
FOR DISCUSSION PURPOSES ONLY**

**WTE Cost Comparison**

February 1, 2012

## Waste-to-Energy Project Topics for Discussion

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- **As requested by City Council, a model has been created to analyze the cost impact of the proposed Waste-to-Energy Project. The City’s Waste Experts have developed the following base case assumptions based on the proposed service agreement:**
  
- **Waste quantity assumptions:**

○ Waste disposal quantity:	714 tons/week	37,128 tons/year
○ Waste disposal cost:	\$90.48 implied per ton cost	
○ Biosolids disposal quantity:	275 tons/week	14,300 tons/year
○ Biosolids disposal cost:	\$36.75 implied per ton cost	
○ Electricity usage:	833,050 kwh/month	9,996,600 kWh/year
○ Base year:	2011	
  
- **Current System Assumptions:**

○ Existing waste disposal contract:	\$3,359,390 (2011 total cost)
○ Existing waste disposal growth rate:	<b>SEE BELOW</b>
○ Biosolids disposal cost:	\$525,525
○ Biosolids growth rate:	2.30%
  
- **DTE System Assumptions:**

○ Waste/Biosolids disposal fee:	\$5,885,000 (year 1)
○ Waste/Biosolids disposal fee growth rate:	2.21%
○ Electricity credit:	\$0.12 (DTE guaranteed for first 5 years) \$0.11 (assumed credit in year 6)
○ Electricity credit growth rate:	0.00% for first 5 years 2.00% annual growth beginning in year 6
○ Additional revenue assumptions:	
▪ Waste disposal cost discount*:	25% (City’s share would be 75% of revenue)
▪ Maximum permitted capacity:	+/- 12%
▪ Assumed capacity sold:	11%
▪ Waste disposal cost:	\$77.50
▪ Waste disposal cost discount:	10%
  
- **Existing Waste Growth Rate** – sensitivity scenarios have been provided for the following:

○ Scenario 1 – Assumes a 3.00% annual growth rate
○ Scenario 2 – Assumes a 3.15% annual growth rate
○ Scenario 3 – Assumes a 3.30% annual growth rate

**\*For these purposes, assumes approximately 50% of excess capacity is sold by the City (resulting in 100% revenue retention for the City) and approximately 50% of excess capacity is sold by DTE (resulting in 45% revenue retention for the City). The blended revenue retention rate for the City is approximately 75%.**

Growth rate assumptions for landfill costs and electricity prices (see pull down tabs) are highly speculative and are dependent upon a variety of factors including, but not limited to, the general inflation rate, fuel prices, state and federal regulations and alternative disposal options.

**Assumptions:** User Inputs in Blue

Waste Quantity*	714 tons/week	37,128 ton/year
Waste Disposal Cost	\$ 90.48	implied per ton
Biosolids Quantity*	275 tons/week	14,300 ton/year
Biosolids Disposal Cost	\$ 36.75	implied per ton
Electricity Usage	833,050 kWh/month	9,996,600 kWh/year
Base Year	2011	

**Notes**  
 Waste includes City Curbside Collection Program, City Facilities, and Litter Receptacles.  
 Disposal Only (Collection and transportation factored out)  
 Includes Disposal, Labor and Transportation Costs

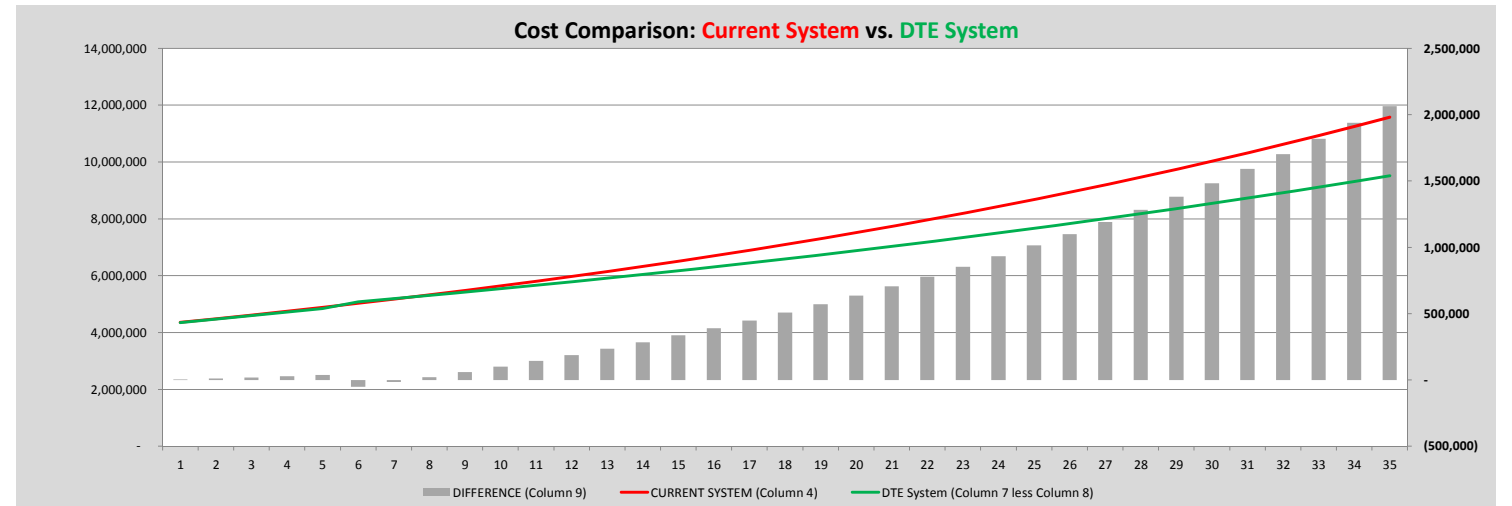
**Base Assumptions: (Use these values to return to the 2011 starting conditions)**

Waste Quantity	714	DTE Fee/Growth	\$5,885,000/2.21%
Biosolids Quantity	275	Electricity Rate/Growth	\$0.12/0.00%/2.00%
Biosolids Disposal Cost	\$36.75	Waste Disposal Growth	0.00%
Electricity Usage	833,050	Waste Disposal Cost/Growth	\$77.50/3.00%
Waste Contract/Growth	\$3,359,390/3.00%	Max Excess Tonnage	11.00%
Biosolids Growth	2.30%	Waste Disposal Discount	10.00%

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
CURRENT SYSTEM				DTE SYSTEM				Difference Savings (Cost)	Cumulative Difference Savings (Cost)	ADDITIONAL REVENUE/(COSTS) ASSUMPTIONS (SEE COLUMN 8)				
Waste Disposal Cost	Biosolids Disposal Cost	Total	Waste/Biosolids Disposal Fee	Less: Electricity Credit	Sub-Total	Less: Additional Revenue/(Cost)	Waste Disposal Cost Discount			Waste Disposal/ Biosolids Growth	Maximum Allowed +12% (tons)	Waste Disposal Cost (\$/ton)	Waste Disposal Spot Market Discount	
Assumptions/ Growth Rate	\$ 3,359,390	\$ 525,525	\$ 5,885,000	\$ 0.1200	2015 Rate	25.00%		51,428	57,085	\$ 77.50	3.00%	10.00%		
	3.00%	2.30%	2.21%	0.00%	2015 - 2019									
			\$ 0.1100	2.00%	2020 Rate									
					2020 - Beyond									
2015	1	3,781,023	575,567	4,356,590	5,885,000	1,199,592	4,685,408	333,079	4,261	4,261	51,428	5,657	87.23	78.50
2016	2	3,894,454	588,805	4,483,259	6,015,059	1,199,592	4,815,467	343,071	10,863	15,124	51,428	5,657	89.84	80.86
2017	3	4,011,287	602,348	4,613,635	6,147,991	1,199,592	4,948,399	353,363	18,599	33,723	51,428	5,657	92.54	83.29
2018	4	4,131,626	616,202	4,747,828	6,283,862	1,199,592	5,084,270	363,964	27,522	61,244	51,428	5,657	95.32	85.78
2019	5	4,255,575	630,374	4,885,949	6,422,735	1,199,592	5,223,143	374,883	37,689	98,933	51,428	5,657	98.17	88.36
2020	6	4,383,242	644,873	5,028,115	6,564,678	1,099,626	5,465,052	386,129	(50,808)	48,125	51,428	5,657	101.12	91.01
2021	7	4,514,739	659,705	5,174,444	6,709,757	1,121,619	5,588,139	397,713	(15,981)	32,144	51,428	5,657	104.15	93.74
2022	8	4,650,181	674,878	5,325,060	6,858,043	1,144,051	5,713,992	409,645	20,712	52,856	51,428	5,657	107.28	96.55
2023	9	4,789,687	690,400	5,480,087	7,009,605	1,166,932	5,842,674	421,934	59,348	112,204	51,428	5,657	110.50	99.45
2024	10	4,933,377	706,280	5,639,657	7,164,518	1,190,271	5,974,247	434,592	100,002	212,206	51,428	5,657	113.81	102.43
2025	11	5,081,379	722,524	5,803,903	7,322,854	1,214,076	6,108,778	447,630	142,755	354,961	51,428	5,657	117.23	105.50
2026	12	5,233,820	739,142	5,972,962	7,484,689	1,238,357	6,246,331	461,059	187,690	542,650	51,428	5,657	120.74	108.67
2027	13	5,390,835	756,142	6,146,977	7,650,100	1,263,125	6,386,976	474,890	234,892	777,542	51,428	5,657	124.36	111.93
2028	14	5,552,560	773,534	6,326,093	7,819,167	1,288,387	6,530,780	489,137	284,450	1,061,992	51,428	5,657	128.10	115.29
2029	15	5,719,137	791,325	6,510,461	7,991,971	1,314,155	6,677,816	503,811	336,456	1,398,449	51,428	5,657	131.94	118.74
2030	16	5,890,711	809,525	6,700,236	8,168,594	1,340,438	6,828,156	518,926	391,006	1,789,455	51,428	5,657	135.90	122.31
2031	17	6,067,432	828,144	6,895,576	8,349,120	1,367,247	6,981,873	534,493	448,197	2,237,652	51,428	5,657	139.97	125.98
2032	18	6,249,455	847,192	7,096,647	8,533,635	1,394,592	7,139,043	550,528	508,131	2,745,783	51,428	5,657	144.17	129.76
2033	19	6,436,939	866,677	7,303,616	8,722,228	1,422,483	7,299,745	567,044	570,915	3,316,698	51,428	5,657	148.50	133.65
2034	20	6,630,047	886,611	7,516,657	8,914,990	1,450,933	7,464,057	584,055	636,656	3,953,354	51,428	5,657	152.95	137.66
2035	21	6,828,948	907,003	7,735,951	9,112,011	1,479,952	7,632,059	601,577	705,469	4,658,823	51,428	5,657	157.54	141.79
2036	22	7,033,817	927,864	7,961,680	9,313,386	1,509,551	7,803,836	619,624	777,469	5,436,292	51,428	5,657	162.27	146.04
2037	23	7,244,831	949,205	8,194,036	9,519,212	1,539,742	7,979,470	638,213	852,778	6,289,070	51,428	5,657	167.14	150.42
2038	24	7,462,176	971,036	8,433,212	9,729,587	1,570,537	8,159,050	657,359	931,522	7,220,592	51,428	5,657	172.15	154.93
2039	25	7,686,041	993,370	8,679,412	9,944,611	1,601,947	8,342,663	677,080	1,013,828	8,234,420	51,428	5,657	177.31	159.58
2040	26	7,916,623	1,016,218	8,932,840	10,164,387	1,633,986	8,530,400	697,393	1,099,833	9,334,253	51,428	5,657	182.63	164.37
2041	27	8,154,121	1,039,591	9,193,712	10,389,020	1,666,666	8,722,353	718,314	1,189,673	10,523,926	51,428	5,657	188.11	169.30
2042	28	8,398,745	1,063,501	9,462,246	10,618,617	1,699,999	8,918,617	739,864	1,283,493	11,807,419	51,428	5,657	193.76	174.38
2043	29	8,650,707	1,087,962	9,738,669	10,853,288	1,733,999	9,119,289	762,060	1,381,440	13,188,858	51,428	5,657	199.57	179.61
2044	30	8,910,228	1,112,985	10,023,213	11,093,146	1,768,679	9,324,467	784,921	1,483,668	14,672,527	51,428	5,657	205.56	185.00
2045	31	9,177,535	1,138,584	10,316,119	11,338,304	1,804,053	9,534,251	808,669	1,590,337	16,262,863	51,428	5,657	211.72	190.55
2046	32	9,452,861	1,164,771	10,617,632	11,588,881	1,840,134	9,748,747	832,723	1,701,609	17,964,472	51,428	5,657	218.07	196.27
2047	33	9,736,447	1,191,561	10,928,008	11,844,995	1,876,937	9,968,059	857,705	1,817,654	19,782,126	51,428	5,657	224.62	202.15
2048	34	10,028,541	1,218,967	11,247,507	12,106,770	1,914,475	10,192,294	883,436	1,938,649	21,720,776	51,428	5,657	231.36	208.22
2049	35	10,329,397	1,247,003	11,576,400	12,374,329	1,952,765	10,421,564	909,939	2,064,775	23,785,550	51,428	5,657	238.30	214.47
<b>TOTAL</b>				<b>259,048,391</b>			<b>255,401,464</b>							

NPV @ 3.00% = \$10,848,360

\* \$11,318,204 of the total NPV difference is a result of assumed revenue from sale of unused tonnage capacity (column 8). NPV difference of columns 4 and 7 is -\$469,844.



At the request of the City of Allentown, Public Financial Management, Inc. ("PFM") prepared the attached presentation of costs of the City's waste disposal activities under various assumptions supplied to us, including the effect of the proposed DTE System. All information employed in the attached presentation was provided to PFM by the City or third parties designated by the City. We have been authorized to assume that all such information is accurate, complete and reasonable, and, with the consent of the City, we have made no examination as to the accuracy or completeness of any such information or the reasonableness of any assumptions as to future conditions which have been furnished to us. PFM assumes responsibility only for the reliability of computations made and presented on the basis described above and, where appropriate, giving effect to historic relationships. PFM makes no representation as to the achievability of any state of facts portrayed in the attached presentation.

**WTE COST COMPARISON**

Growth rate assumptions for landfill costs and electricity prices (see pull down tabs) are highly speculative and are dependent upon a variety of factors including, but not limited to, the general inflation rate, fuel prices, state and federal regulations and alternative disposal options.

**Assumptions:** **User Inputs in Blue**

Waste Quantity*	714 tons/week	37,128 ton/year
Waste Disposal Cost	\$ 90.48	implied per ton
Biosolids Quantity*	275 tons/week	14,300 ton/year
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Electricity Usage	833,050 kwh/month	9,996,600 kWh/year
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**Notes**  
Waste includes City Curbside Collection Program, City Facilities, and Litter Receptacles.  
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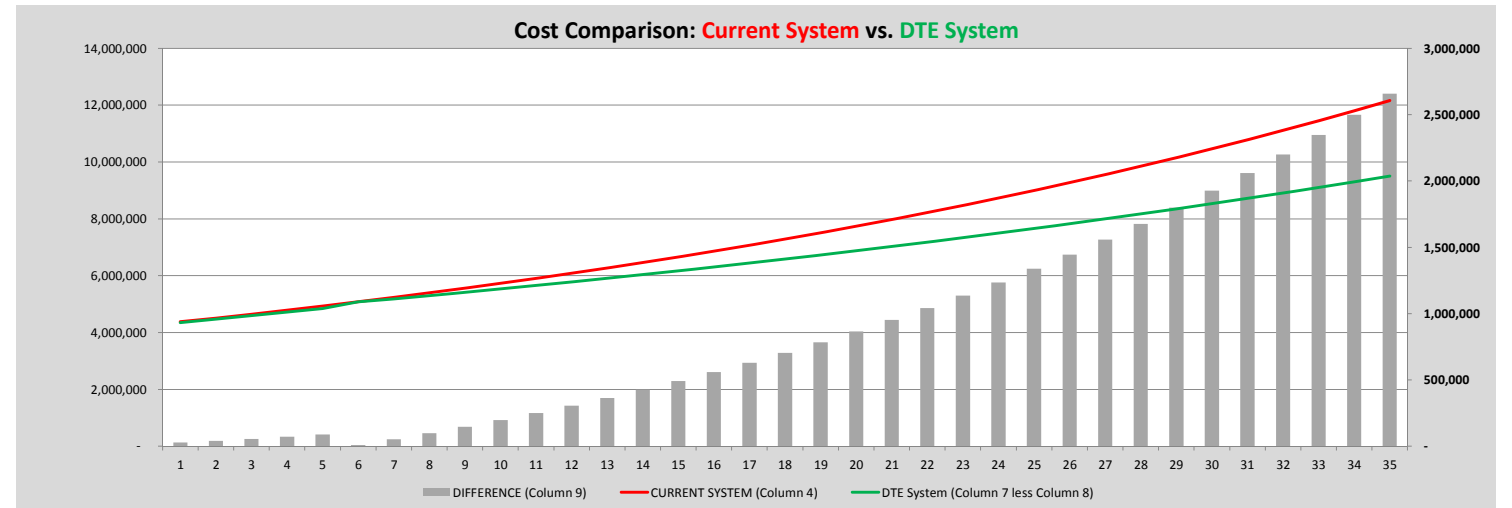
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Electricity Usage	833,050	Waste Disposal Cost/Growth	\$77.50/3.15%
Waste Contract/Growth	\$3,359,390/3.15%	Max Excess Tonnage	11.00%
Biosolids Growth	2.30%	Waste Disposal Discount	10.00%

Year	CURRENT SYSTEM			DTE SYSTEM			Difference Savings (Cost)	Cumulative Difference Savings (Cost)	ADDITIONAL REVENUE/(COSTS) ASSUMPTIONS (SEE COLUMN 8)																																																												
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">Assumptions/ Growth Rate</td> <td>\$ 3,359,390</td> <td>\$ 525,525</td> <td>\$ 5,885,000</td> <td>\$ 0.1200</td> <td>2015 Rate</td> <td>Waste Disposal Cost Discount</td> <td>51,428</td> <td>57,085</td> <td>\$ 77.50</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td>3.15%</td> <td>2.30%</td> <td>2.21%</td> <td>0.00%</td> <td>2015 - 2019</td> <td>25.00%</td> <td>0.00%</td> <td>11.00%</td> <td>3.15%</td> <td>10.00%</td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td></td> <td></td> <td>2.00%</td> <td>0.1100</td> <td>2020 Rate</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td></td> <td></td> <td></td> <td>2.00%</td> <td>2020 - Beyond</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>														Assumptions/ Growth Rate		\$ 3,359,390	\$ 525,525	\$ 5,885,000	\$ 0.1200	2015 Rate	Waste Disposal Cost Discount	51,428	57,085	\$ 77.50						3.15%	2.30%	2.21%	0.00%	2015 - 2019	25.00%	0.00%	11.00%	3.15%	10.00%							2.00%	0.1100	2020 Rate													2.00%	2020 - Beyond							
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2015	1	3,803,097	575,567	4,378,664	5,885,000	1,199,592	4,685,408	335,023	28,279	28,279	51,428	5,657	87.74	78.96																																																							
2016	2	3,922,894	588,805	4,511,699	6,015,059	1,199,592	4,815,467	345,074	41,306	69,585	51,428	5,657	90.37	81.33																																																							
2017	3	4,046,465	602,348	4,648,813	6,147,991	1,199,592	4,948,399	355,426	55,840	125,425	51,428	5,657	93.08	83.77																																																							
2018	4	4,173,929	616,202	4,790,131	6,283,862	1,199,592	5,084,270	366,089	71,949	197,374	51,428	5,657	95.87	86.28																																																							
2019	5	4,305,408	630,374	4,935,782	6,422,735	1,199,592	5,223,143	377,071	89,710	287,084	51,428	5,657	98.75	88.87																																																							
2020	6	4,441,028	644,873	5,085,901	6,564,678	1,099,626	5,465,052	388,384	9,233	296,317	51,428	5,657	101.71	91.54																																																							
2021	7	4,580,920	659,705	5,240,625	6,709,757	1,121,619	5,588,139	400,035	52,522	348,839	51,428	5,657	104.76	94.29																																																							
2022	8	4,725,219	674,878	5,400,098	6,858,043	1,144,051	5,713,992	412,036	98,142	446,981	51,428	5,657	107.90	97.11																																																							
2023	9	4,874,064	690,400	5,564,464	7,009,605	1,166,932	5,842,674	424,397	146,188	593,169	51,428	5,657	111.14	100.03																																																							
2024	10	5,027,597	706,280	5,733,876	7,164,518	1,190,271	5,974,247	437,129	196,758	789,927	51,428	5,657	114.48	103.03																																																							
2025	11	5,185,966	722,524	5,908,490	7,322,854	1,214,076	6,108,778	450,243	249,955	1,039,882	51,428	5,657	117.91	106.12																																																							
2026	12	5,349,324	739,142	6,088,466	7,484,689	1,238,357	6,246,331	463,750	305,885	1,345,768	51,428	5,657	121.45	109.30																																																							
2027	13	5,517,828	756,142	6,273,970	7,650,100	1,263,125	6,386,976	477,663	364,657	1,710,425	51,428	5,657	125.09	112.58																																																							
2028	14	5,691,639	773,534	6,465,173	7,819,167	1,288,387	6,530,780	491,993	426,385	2,136,810	51,428	5,657	128.84	115.96																																																							
2029	15	5,870,926	791,325	6,662,251	7,991,971	1,314,155	6,677,816	506,752	491,187	2,627,997	51,428	5,657	132.71	119.44																																																							
2030	16	6,055,860	809,525	6,865,385	8,168,594	1,340,438	6,828,156	521,955	559,185	3,187,182	51,428	5,657	136.69	123.02																																																							
2031	17	6,246,620	828,144	7,074,764	8,349,120	1,367,247	6,981,873	537,614	630,505	3,817,687	51,428	5,657	140.79	126.71																																																							
2032	18	6,443,388	847,192	7,290,580	8,533,635	1,394,592	7,139,043	553,742	705,279	4,522,966	51,428	5,657	145.01	130.51																																																							
2033	19	6,646,355	866,677	7,513,032	8,722,228	1,422,483	7,299,745	570,354	783,642	5,306,607	51,428	5,657	149.36	134.43																																																							
2034	20	6,855,715	886,611	7,742,326	8,914,990	1,450,933	7,464,057	587,465	865,734	6,172,342	51,428	5,657	153.85	138.46																																																							
2035	21	7,071,670	907,003	7,978,673	9,112,011	1,479,952	7,632,059	605,089	951,703	7,124,044	51,428	5,657	158.46	142.62																																																							
2036	22	7,294,428	927,864	8,222,292	9,313,386	1,509,551	7,803,836	623,242	1,041,698	8,165,742	51,428	5,657	163.22	146.89																																																							
2037	23	7,524,202	949,205	8,473,407	9,519,212	1,539,742	7,979,470	641,939	1,135,875	9,301,617	51,428	5,657	168.11	151.30																																																							
2038	24	7,761,215	971,036	8,732,251	9,729,587	1,570,537	8,159,050	661,197	1,234,398	10,536,015	51,428	5,657	173.15	155.84																																																							
2039	25	8,005,693	993,370	8,999,063	9,944,611	1,601,947	8,342,663	681,033	1,337,433	11,873,448	51,428	5,657	178.35	160.51																																																							
2040	26	8,257,872	1,016,218	9,274,090	10,164,387	1,633,986	8,530,400	701,464	1,445,154	13,318,602	51,428	5,657	183.70	165.33																																																							
2041	27	8,517,995	1,039,591	9,557,586	10,389,020	1,666,666	8,722,353	722,508	1,557,740	14,876,342	51,428	5,657	189.21	170.29																																																							
2042	28	8,786,312	1,063,501	9,849,813	10,618,617	1,699,999	8,918,617	744,183	1,675,379	16,551,722	51,428	5,657	194.89	175.40																																																							
2043	29	9,063,081	1,087,962	10,151,043	10,853,288	1,733,999	9,119,289	766,509	1,798,262	18,349,984	51,428	5,657	200.73	180.66																																																							
2044	30	9,348,568	1,112,985	10,461,553	11,093,146	1,768,679	9,324,467	789,504	1,926,560	20,276,574	51,428	5,657	206.76	186.08																																																							
2045	31	9,643,048	1,138,584	10,781,631	11,338,304	1,804,053	9,534,251	813,189	2,060,569	22,337,143	51,428	5,657	212.96	191.66																																																							
2046	32	9,946,804	1,164,771	11,111,575	11,588,881	1,840,134	9,748,747	837,585	2,200,413	24,537,556	51,428	5,657	219.35	197.41																																																							
2047	33	10,260,128	1,191,561	11,451,689	11,844,995	1,876,937	9,968,059	862,712	2,346,343	26,883,898	51,428	5,657	225.93	203.34																																																							
2048	34	10,583,322	1,218,967	11,802,289	12,106,770	1,914,475	10,192,294	888,594	2,498,588	29,382,487	51,428	5,657	232.71	209.44																																																							
2049	35	10,916,697	1,247,003	12,163,700	12,374,329	1,952,765	10,421,564	915,251	2,657,387	32,039,873	51,428	5,657	239.69	215.72																																																							
<b>TOTAL</b>				<b>267,185,145</b>			<b>255,401,464</b>			<b>20,256,193</b>			<b>32,039,873</b>																																																								

NPV @ 3.00% \$14,915,782

\* \$11,384,279 of the total NPV difference is a result of assumed revenue from sale of unused tonnage capacity (column 8). NPV difference of columns 4 and 7 is \$3,531,503.



At the request of the City of Allentown, Public Financial Management, Inc. ("PFM") prepared the attached presentation of costs of the City's waste disposal activities under various assumptions supplied to us, including the effect of the proposed DTE System. All information employed in the attached presentation was provided to PFM by the City or third parties designated by the City. We have been authorized to assume that all such information is accurate, complete and reasonable, and, with the consent of the City, we have made no examination as to the accuracy or completeness of any such information or the reasonableness of any assumptions as to future conditions which have been furnished to us. PFM assumes responsibility only for the reliability of computations made and presented on the basis described above and, where appropriate, giving effect to historic relationships. PFM makes no representation as to the achievability of any state of facts portrayed in the attached presentation.

Growth rate assumptions for landfill costs and electricity prices (see pull down tabs) are highly speculative and are dependent upon a variety of factors including, but not limited to, the general inflation rate, fuel prices, state and federal regulations and alternative disposal options.

Assumptions:		User Inputs in Blue	
Waste Quantity*	714 tons/week	37,128 ton/year	
Waste Disposal Cost	\$	90.48 implied per ton	
Biosolids Quantity*	275 tons/week	14,300 ton/year	
Biosolids Disposal Cost	\$	36.75 implied per ton	
Electricity Usage	833,050 kwh/month	9,996,600 kWh/year	
Base Year	2011		

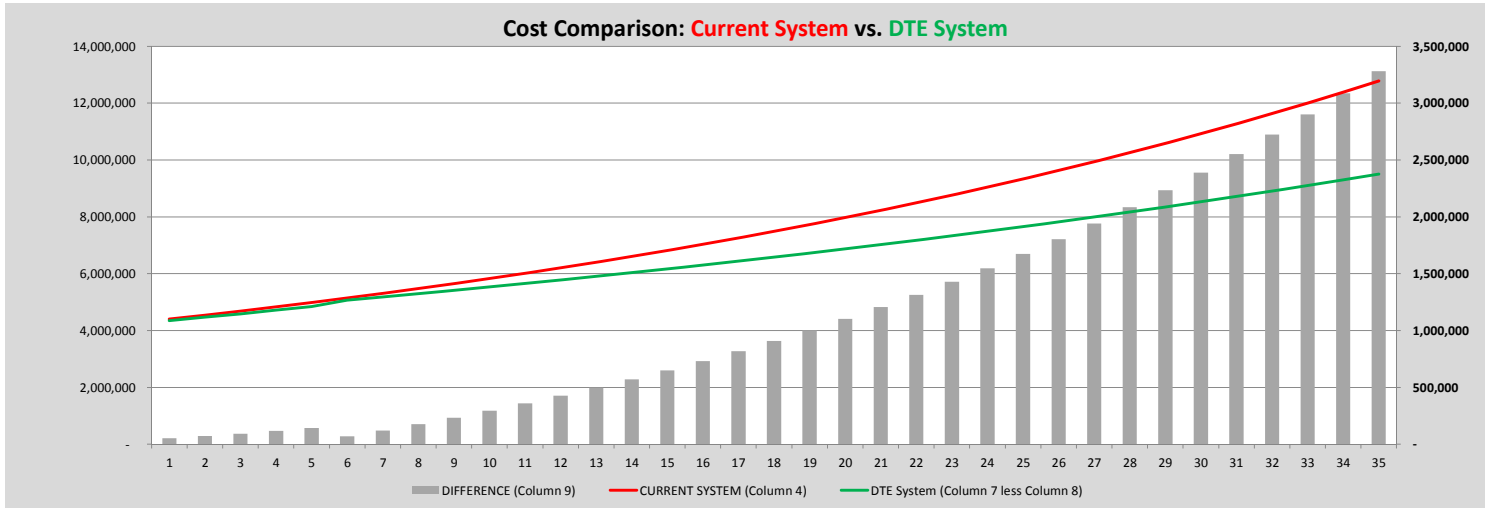
**Notes**  
 Waste includes City Curbside Collection Program, City Facilities, and Litter Receptacles.  
 Disposal Only (Collection and transportation factored out)  
 Includes Disposal, Labor and Transportation Costs

Base Assumptions: (Use these values to return to the 2011 starting conditions)			
Waste Quantity	714	DTE Fee/Growth	\$5,885,000/2.21%
Biosolids Quantity	275	Electricity Rate/Growth	\$0.12/0.00%/2.00%
Biosolids Disposal Cost	\$36.75	Waste Disposal Growth	0.00%
Electricity Usage	833,050	Waste Disposal Cost/Growth	\$77.50/3.30%
Waste Contract/Growth	\$3,359,390/3.30%	Max Excess Tonnage	11.00%
Biosolids Growth	2.30%	Waste Disposal Discount	10.00%

Year	CURRENT SYSTEM			DTE SYSTEM			Difference Savings (Cost)	Cumulative Difference Savings (Cost)	ADDITIONAL REVENUE/(COSTS) ASSUMPTIONS (SEE COLUMN 8)				
	Waste Disposal Cost	Biosolids Disposal Cost	Total	Waste/Biosolids Disposal Fee	Less: Electricity Credit	Sub-Total			Less: Additional Revenue/(Cost) (Columns 11 - 14)	Waste Disposal/ Biosolids Growth	Maximum Allowed +12% (tons)	Waste Disposal Cost (\$/ton)	Waste Disposal Spot Market Discount
	Assumptions/ Growth Rate	Assumptions/ Growth Rate	Assumptions/ Growth Rate	Assumptions/ Growth Rate	Assumptions/ Growth Rate	Assumptions/ Growth Rate			Assumptions/ Growth Rate	Assumptions/ Growth Rate	Assumptions/ Growth Rate	Assumptions/ Growth Rate	Assumptions/ Growth Rate
	\$ 3,359,390	\$ 525,525	\$ 5,885,000	\$ 0.1200	2015 Rate	25.00%		51,428	57,085	\$ 77.50	10.00%		
	3.30%	2.30%	2.21%	0.00%	2015 - 2019	25.00%		0.00%	11.00%		3.30%		
			\$ 0.1100	2.00%	2020 Rate								
					2020 - Beyond								
2015 1	3,825,267	575,567	4,400,834	5,885,000	1,199,592	4,685,408	336,976	52,402	52,402	51,428	5,657	88.25	79.42
TOTAL	11,536,462	1,247,003	12,783,465	12,374,329	1,952,765	10,421,564	920,587	3,282,487	40,621,729	51,428	5,657	241.08	216.98

NPV @	3.00%	\$19,131,462
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\* \$11,450,644 of the total NPV difference is a result of assumed revenue from sale of unused tonnage capacity (column 8). NPV difference of columns 4 and 7 is \$7,680,818.



At the request of the City of Allentown, Public Financial Management, Inc. (“PFM”) prepared the attached presentation of costs of the City’s waste disposal activities under various assumptions supplied to us, including the effect of the proposed DTE System. All information employed in the attached presentation was provided to PFM by the City or third parties designated by the City. We have been authorized to assume that all such information is accurate, complete and reasonable, and, with the consent of the City, we have made no examination as to the accuracy or completeness of any such information or the reasonableness of any assumptions as to future conditions which have been furnished to us. PFM assumes responsibility only for the reliability of computations made and presented on the basis described above and, where appropriate, giving effect to historic relationships. PFM makes no representation as to the achievability of any state of facts portrayed in the attached presentation.