

MINUTES OF THE CHESHIRE TOWN COUNCIL ENERGY AUDIT/PERFORMANCE CONTRACTING OWNER'S REPRESENTATIVE SELECTION SUBCOMMITTEE HELD ON MONDAY, January 15, 2014 AT 7:00PM IN TOWN HALL, ROOM 207, 84 SOUTH MAIN STREET, CHESHIRE, CT 06410

Members:

Jim Sima, Town Council
Tod Dixon, Board of Education
Art Crooker, Public Building Commission
Dave Gavin, Energy Commission (arrived at 7:50pm)

Staff:

Frank Biancur, Board of Education
Vin Masciana, Board of Education
George Noewatne, Director of Public Works
Walt Gancarz, Town Engineer

Others:

Jim Daylor, Ameresco
Jeremy Scott, Ameresco
Dave Newman, ECG Engineering

Meeting called to order at 7:07pm. Mr. Gavin's arrival at 7:50pm determined a quorum was present.

Ameresco is proposing a \$10,176,548 project over a period of 16 years.

Ameresco distributed a revised project summary.

A discussion of the project specifics followed:

- A. Project economics (page 3)
- B. Summary of project components (page 4)
- C. Project pro-forma – (page 5)
 - a. Possible CL&P variables resulting in savings to project
 - i. Incentive funds - \$1,179,150
Could be as much as 20% of overall project cost
 - ii. Interest rate – currently 3.75%. Could be in the 3%-3.25% range given Cheshire's credit rating
 - iii. O&M savings – Less routine maintenance and repairs of equipment

On January 28, 2014 there will be a special Town Council meeting to consider this performance contract.

Motion by Mr. Dixon to recommend the performance contract of \$10,176,548 over 16 years be forwarded to the Town Council for consideration. Motion seconded by Mr. Gavin and carried unanimously.

Motion by Mr. Crooker to adjourn meeting. Motion seconded by Mr. Dixon and carried unanimously.

Meeting adjourned at 8:20pm.

Submitted by:

George Noewatne

Summary of Project Economics

Town of Cheshire, CT
Project Savings Summary

Item #	Energy Model	Net Meter #	Total kWh	Adjusted kWh (WT)	Production (kWh/yr)	Net Paid Up (kWh/yr)	Water (gallons)	Space (ft ² /year)	Energy Savings	O&M Savings	Total Project Savings	Total Project Costs	EPB	Estimated Payback
1	Lighting System Improvements	1,524	460,704	(2,873)	-	(960)	-	-	\$ 68,554	\$ 12,920	\$ 79,474	\$ 595,728	8.77	\$ 105,650
1B	Classroom Lighting - LED Option	3,117	668,046	(6,511)	-	(1,555)	-	-	\$ 102,294	\$ 13,053	\$ 115,347	\$ 3,166,343	27.15	\$ 343,022
2	Lighting Controls	-	2,719	(39)	-	-	-	-	\$ 243	-	\$ 243	\$ 3,724	14.40	\$ 1,365
3	Recommission and Upgrade Controls	-	1,021,515	109,637	1,983	15,714	-	-	\$ 275,656	-	\$ 275,656	\$ 1,481,164	5.37	\$ 477,245
4	Building Weatherization	-	78,509	12,072	47	1,923	-	-	\$ 26,921	-	\$ 26,921	\$ 294,271	10.93	\$ -
5	Electric Heat Conversion	558	1,021,550	(40,366)	-	-	-	-	\$ 51,710	-	\$ 51,710	\$ 3,011,773	58.24	\$ -
7	Chiller Replacement	116	60,617	-	-	-	-	-	\$ 6,330	-	\$ 6,330	\$ 404,534	48.57	\$ 30,309
8	Oil to Gas Conversion	-	-	(1,729)	-	1,372	-	-	\$ 2,023	-	\$ 2,023	\$ 5,973	2.94	\$ -
9	High Efficiency Boilers	-	495	(20)	-	-	-	-	\$ 11,476	-	\$ 11,476	\$ 328,061	28.59	\$ 42,865
11	Comesive Water Heating Improvements	-	164,437	-	-	-	-	-	\$ 747	-	\$ 747	\$ 12,352	16.55	\$ 243
15	Replaces 2000 T18 with Atomic Cooks	410	50,956	(800)	-	(80)	-	-	\$ 21,657	-	\$ 21,657	\$ 49,313	2.28	\$ 19,613
16	Vending Machine Controls	-	24	-	-	-	-	-	\$ 3,352	-	\$ 3,352	\$ 11,744	3.49	\$ 5,689
17	Replace Refrigerator	-	1,023	-	-	-	-	-	\$ 1,495	-	\$ 1,495	\$ 11,501	7.69	\$ 3,503
18	Premium Efficiency Motors	15	3,578	-	-	-	-	-	\$ 849	-	\$ 849	\$ 11,267	13.29	\$ 2,789
19	Fan VFDs	38	62,468	-	-	-	-	-	\$ 4,909	-	\$ 4,909	\$ 97,504	19.86	\$ 22,064
20	Pump Improvement Measures	39	14,458	-	-	-	-	-	\$ 7,456	-	\$ 7,456	\$ 54,844	7.37	\$ 21,275
21	Kitchen Appliance Replacements	198	18,375	(683)	-	-	-	-	\$ 3,731	-	\$ 3,731	\$ 66,849	17.92	\$ -
22	Premium Efficiency Transformers	73	53,030	-	-	-	-	-	\$ 5,854	-	\$ 5,854	\$ 103,824	17.61	\$ 16,550
24	Building Insulation	-	359	870	-	75	-	-	\$ 688	-	\$ 688	\$ 20,549	29.94	\$ -
28	Roof Insulation	-	-	11,827	-	164	-	-	\$ 12,979	-	\$ 12,979	\$ 133,657	10.30	\$ -
29	Water Conservation	-	1,576	668	-	491	-	-	\$ 1,846	-	\$ 1,846	\$ 210,321	13.07	\$ -
Total		5,522	5,522,406	(15,556)	28,881	98,853	1,846	2,888	\$ 625,326	\$ 25,232	\$ 650,558	\$ 18,176,569	45.83	\$ 1,179,191



Summary of Project Components

Project Name	Police Headquarters	Town Hall	Dodd Middle School	Chester High School	Community Pool	Library	Senior Center	Youth Center	The Yellow House	Parks & Rec Garage	Fire Headquarters	Fire House Annex	Fire House #2	Fire House #3	Public Works - Old Garage	Public Works - New Merch	Public Works - 8 Bay Garage	Public Works - 5 Bay Garage	Water Pollution Control	Dog Pound	Auto Place	Lock 12 House	Facilities & Grounds	Bus Depot	Chapman Elementary	Highland Elementary	Norton Elementary	Darcy Kindergarten	Dowdle Elementary	Hamilton School	BOE Offices	West Johnson P.S.	Elmwood P.S.	Cook Hill P.S.	Various Pump Stations			
Police Headquarters	X																																					
Town Hall		X																																				
Dodd Middle School			X																																			
Chester High School				X																																		
Community Pool					X																																	
Library						X																																
Senior Center							X																															
Youth Center								X																														
The Yellow House									X																													
Parks & Rec Garage										X																												
Fire Headquarters											X																											
Fire House Annex												X																										
Fire House #2													X																									
Fire House #3														X																								
Public Works - Old Garage															X																							
Public Works - New Merch																X																						
Public Works - 8 Bay Garage																	X																					
Public Works - 5 Bay Garage																		X																				
Water Pollution Control																			X																			
Dog Pound																				X																		
Auto Place																					X																	
Lock 12 House																						X																
Facilities & Grounds																							X															
Bus Depot																								X														
Chapman Elementary																									X													
Highland Elementary																										X												
Norton Elementary																											X											
Darcy Kindergarten																												X										
Dowdle Elementary																													X									
Hamilton School																														X								
BOE Offices																															X							
West Johnson P.S.																																X						
Elmwood P.S.																																	X					
Cook Hill P.S.																																	X					
Various Pump Stations																																		X				

Draft Investment Grade Audit



Project Proforma

Town of Cheshire, CT - Pro-Forma

Initial Project Costs:	
Investment Grade Audit Fee	\$ 48,103
Engineering costs	\$ 10,728,445
Total Initial Project Costs	\$ 10,776,548
Estimated Incentives	\$ 1,178,151
Customer Contribution	\$ -
Net Project Cost	\$ 9,598,397

Financial Assumptions:	
Term of Project (yrs)	16.0 yrs
Period of Financing (m)	16.0 yrs
Estimated Financing Rate	3.75%
Payments per year (frequency)	4
Discount Rate	3.75%
Average Energy escalation rate (annual)	2.81%
Project Simple Payback	15.63

	Year											
1 Annual energy costs without improvements	\$ 2,655,348	\$ 2,689,118	\$ 2,774,980	\$ 2,862,933	\$ 3,015,514	\$ 3,100,247	\$ 3,187,361	\$ 3,276,922	\$ 3,368,000	\$ 3,463,665	\$ 3,563,939	\$ 3,668,811
2 Annual energy costs with improvements	\$ 2,000,212	\$ 2,035,228	\$ 2,111,753	\$ 2,189,630	\$ 2,290,810	\$ 2,353,802	\$ 2,418,522	\$ 2,485,018	\$ 2,553,339	\$ 2,623,535	\$ 2,695,653	\$ 2,770,733
3 Annual energy cost savings (1-2)	\$ 655,136	\$ 653,890	\$ 663,227	\$ 673,303	\$ 724,704	\$ 746,445	\$ 768,838	\$ 791,904	\$ 815,661	\$ 840,131	\$ 865,176	\$ 890,878
4 O&M Savings	\$ 25,973	\$ 26,753	\$ 27,585	\$ 28,382	\$ 30,110	\$ 31,944	\$ 33,802	\$ 35,689	\$ 37,611	\$ 39,568	\$ 41,561	\$ 43,591
5 Total Project Savings	\$ 681,109	\$ 680,643	\$ 690,812	\$ 711,485	\$ 754,814	\$ 777,459	\$ 800,782	\$ 824,806	\$ 849,272	\$ 874,199	\$ 899,597	\$ 925,469
6 Payments for financing equipment	\$ -	\$ 25,048	\$ 55,103	\$ 67,652	\$ 68,194	\$ 719,363	\$ 741,162	\$ 765,614	\$ 786,740	\$ 810,560	\$ 835,095	\$ 860,347
7 Payments for Ongoing Services	\$ -	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259
8 Net annual benefits	\$ 116,141	\$ 7,259	\$ 14,518	\$ 21,776	\$ 29,035	\$ 36,294	\$ 43,553	\$ 50,812	\$ 58,071	\$ 65,329	\$ 72,588	\$ 79,847
9 Cumulative cash flow	\$ 116,141	\$ 188,680	\$ 333,829	\$ 451,481	\$ 541,676	\$ 604,425	\$ 640,739	\$ 656,611	\$ 652,041	\$ 627,070	\$ 591,752	\$ 546,085
10 Net Present Value of cash flow	\$ 86,163	\$ 153,753	\$ 217,753	\$ 279,753	\$ 339,753	\$ 397,753	\$ 453,753	\$ 507,753	\$ 559,753	\$ 609,753	\$ 657,753	\$ 703,753
11 Interest Rate	3.75%											
12 Discount Rate	3.75%											

1	\$ 3,560,990	\$ 3,661,050	\$ 3,763,622	\$ 3,868,684	\$ 3,976,418	\$ 4,086,207	\$ 4,198,550	\$ 4,313,957	\$ 4,432,939	\$ 4,555,006	\$ 4,680,678	\$ 4,809,465
2	\$ 2,695,656	\$ 2,765,766	\$ 2,845,889	\$ 2,926,010	\$ 3,006,478	\$ 3,087,047	\$ 3,167,662	\$ 3,248,362	\$ 3,329,187	\$ 3,410,167	\$ 3,491,342	\$ 3,572,753
3	\$ 865,334	\$ 861,284	\$ 857,234	\$ 853,184	\$ 849,134	\$ 845,084	\$ 841,034	\$ 836,984	\$ 832,934	\$ 828,884	\$ 824,834	\$ 820,784
4	\$ 35,953	\$ 37,032	\$ 38,111	\$ 39,190	\$ 40,269	\$ 41,348	\$ 42,427	\$ 43,506	\$ 44,585	\$ 45,664	\$ 46,743	\$ 47,822
5	\$ 901,283	\$ 923,326	\$ 945,369	\$ 967,412	\$ 989,455	\$ 1,011,498	\$ 1,033,541	\$ 1,055,584	\$ 1,077,627	\$ 1,099,670	\$ 1,121,713	\$ 1,143,756
6	\$ 860,366	\$ 866,364	\$ 872,362	\$ 878,360	\$ 884,358	\$ 890,356	\$ 896,354	\$ 902,352	\$ 908,350	\$ 914,348	\$ 920,346	\$ 926,344
7	\$ 33,863	\$ 34,873	\$ 35,713	\$ 36,785	\$ 37,688	\$ 38,591	\$ 39,494	\$ 40,397	\$ 41,299	\$ 42,202	\$ 43,105	\$ 44,008
8	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259	\$ 7,259
9	\$ 79,847	\$ 87,105	\$ 94,364	\$ 101,623	\$ 108,882	\$ 116,141	\$ 123,400	\$ 130,659	\$ 137,918	\$ 145,177	\$ 152,436	\$ 159,695
10												
11												
12												

Notes:
 1 This Proforma Cash Flow reflects an estimated tax exempt lease rate of 3.75%. The actual rate will increase or decrease based on market conditions and customer credit rating at the time of lease funding.
 2 Savings are based on current utility rate structures and usage information provided for purposes of this project.