Total Project Costs

University of Massachusetts Amherst			Capital Investment				Supporting Investment							
			Material and Equipment	Labor and Installation	Overhead & Profit	Total Capital Investment	Audit	Engineering	Training	Bonds	Project Management	Monitor & Verification	Total supporting Investment	Total Project Investment
ECM#	ECM Description	Building	($)	($)	($)	($)	($)	($)	($)	($)		($)	($)	($)
1	Lighting	Campus wide	$ 3,809,082.36	$ 2,937,114.31	$ 564,076.37	$ 7,310,273.04	$ 54,840.76	$ 206,749.66	$ 19,585.99	$ 137,101.90	$ 88,607.00	$ 17,235.67	$ 524,120.96	$ 7,834,394.00
2	Chiller replacement	Tobin	$ 403,643.24	$ 311,241.98	$ 59,774.40	$ 774,659.62	$ 5,811.40	$ 21,908.98	$ 2,075.50	$ 14,528.50	$ 9,389.56	$ 1,826.44	$ 55,540.38	$ 830,200.00
3	Variable flow chilled water	Tobin	$ 115,882.85	$ 89,355.17	$ 17,160.77	$ 222,398.79	$ 1,668.41	$ 6,289.90	$ 595.86	$ 4,171.02	$ 2,695.67	$ 524.36	$ 15,945.21	$ 238,344.00
4	Cooling tower replacement	Tobin	$ 96,738.73	$ 74,593.48	$ 14,325.77	$ 185,657.97	$ 1,392.78	$ 5,250.79	$ 497.42	$ 3,481.96	$ 2,250.34	$ 437.73	$ 13,311.03	$ 198,969.00
5	Interior AHU'S variable air	DuBois Library	$ 243,331.43	$ 187,628.45	$ 36,034.27	$ 466,994.16	$ 3,503.33	$ 13,207.56	$ 1,251.19	$ 8,758.33	$ 5,660.38	$ 1,101.05	$ 33,481.84	$ 500,476.00
6	Chiller & Tower replacement	Thompson	$ 339,550.41	$ 261,821.16	$ 50,283.07	$ 651,654.65	$ 4,888.63	$ 18,430.14	$ 1,745.94	$ 12,221.58	$ 7,898.63	$ 1,536.43	$ 46,721.35	$ 698,376.00
7	Electric&Gas heat conversion	Stadium	$ 80,907.08	$ 62,385.98	$ 11,981.30	$ 155,274.37	$ 1,164.85	$ 4,391.48	$ 416.02	$ 2,912.12	$ 1,882.06	$ 366.10	$ 11,132.63	$ 166,407.00
8	Electric&Gas heat conversion	North Village	$ 719,959.13	$ 555,147.42	$ 106,616.74	$ 1,381,723.28	$ 10,365.52	$ 39,078.00	$ 3,701.97	$ 25,913.79	$ 16,747.71	$ 3,257.73	$ 99,064.72	$ 1,480,788.00
9	Water Conservation	Campus wide	$ 1,678,047.34	$ 1,293,911.86	$ 248,497.34	$ 3,220,456.55	$ 24,159.46	$ 91,081.18	$ 8,628.38	$ 60,398.66	$ 39,034.79	$ 7,592.97	$ 230,895.45	$ 3,451,352.00
10	Water Conservation	Power plant	$ 190,972.07	$ 147,255.10	$ 28,280.52	$ 366,507.68	$ 2,749.50	$ 10,365.60	$ 981.96	$ 6,873.74	$ 4,442.40	$ 864.13	$ 26,277.32	$ 392,785.00
11	PRC Chilled Water Plant	PRC	$ 2,480,225.81	$ 1,912,457.13	$ 367,289.71	$ 4,759,972.64	$ 35,708.72	$ 134,621.88	$ 12,753.12	$ 89,271.81	$ 57,695.09	$ 11,222.74	$ 341,273.36	$ 5,101,246.00
12	Variable Air Flow Conversions	Lederle GRC	$ 2,193,568.12	$ 1,691,420.58	$ 324,839.38	$ 4,209,828.08	$ 31,581.61	$ 119,062.65	$ 11,279.15	$ 78,954.02	$ 51,026.85	$ 9,925.65	$ 301,829.92	$ 4,511,658.00
13	CO-Gen Enhancement	Central plant	$ 6,843,559.15	$ 5,276,944.31	$ 1,013,443.56	$ 13,133,947.03	$ 98,529.24	$ 371,455.22	$ 35,189.01	$ 246,323.09	$ 159,195.09	$ 30,966.33	$ 941,657.97	$ 14,075,605.00
14	Chiller replacement	Morrill science	$ 408,231.02	$ 314,779.54	$ 60,453.79	$ 783,464.35	$ 5,877.45	$ 22,157.99	$ 2,099.09	$ 14,693.63	$ 9,496.28	$ 1,847.20	$ 56,171.65	$ 839,636.00
15	Variable Air Flow Conversions	Whitmore	$ 403,690.89	$ 311,278.72	$ 59,781.46	$ 774,751.06	$ 5,812.09	$ 21,911.56	$ 2,075.75	$ 14,530.22	$ 9,390.67	$ 1,826.66	$ 55,546.94	$ 830,298.00
16	Controls optimization	Campus wide	$ 552,636.80	$ 426,128.21	$ 81,838.44	$ 1,060,603.45	$ 7,956.52	$ 29,996.06	$ 2,841.61	$ 19,891.29	$ 12,855.45	$ 2,500.62	$ 76,041.55	$ 1,136,645.00
17	Steam Traps and repair	Campus wide	$ 4,087,202.86	$ 3,151,567.98	$ 605,262.46	$ 7,844,033.30	$ 58,844.96	$ 221,845.50	$ 21,016.06	$ 147,112.40	$ 95,076.64	$ 18,494.13	$ 562,389.70	$ 8,406,423.00
18	Thermostatic Valves	Campus wide	$ 1,413,397.01	$ 1,089,844.80	$ 209,306.02	$ 2,712,547.83	$ 20,349.20	$ 76,716.47	$ 7,267.57	$ 50,872.99	$ 32,878.49	$ 6,395.46	$ 194,480.17	$ 2,907,028.00
19	Fume hood occupied/unocc.	Campus wide	$ 779,611.00	$ 601,143.90	$ 115,450.42	$ 1,496,205.32	$ 11,224.35	$ 42,315.78	$ 4,008.70	$ 28,060.87	$ 18,135.34	$ 3,527.65	$ 107,272.68	$ 1,603,478.00
20	Plug Loads	Campus wide	$ 294,367.36	$ 226,981.33	$ 43,592.04	$ 564,940.73	$ 4,238.12	$ 15,977.69	$ 1,513.61	$ 10,595.29	$ 6,847.58	$ 1,331.98	$ 40,504.27	$ 605,445.00
21	General Facility ECM's	Campus wide	$ 323,342.93	$ 249,323.87	$ 47,882.95	$ 620,549.76	$ 4,655.29	$ 17,550.43	$ 1,662.60	$ 11,638.22	$ 7,521.61	$ 1,463.09	$ 44,491.24	$ 665,041.00
22	Motor Replacements	Campus wide	$ 869,761.24	$ 670,657.11	$ 128,800.51	$ 1,669,218.86	$ 12,522.27	$ 47,208.97	$ 4,472.24	$ 31,305.68	$ 20,232.41	$ 3,935.57	$ 119,677.14	$ 1,788,896.00
23	Electric Transformer upgrades	Campus wide	$ 717,014.21	$ 552,876.65	$ 106,180.63	$ 1,376,071.50	$ 10,323.12	$ 38,918.15	$ 3,686.83	$ 25,807.79	$ 16,679.21	$ 3,244.41	$ 98,659.50	$ 1,474,731.00
24	Multizone to VAV conversion	DuBois Library	$ 108,617.08	$ 83,752.66	$ 16,084.80	$ 208,454.54	$ 1,563.80	$ 5,895.53	$ 558.50	$ 3,909.50	$ 2,526.65	$ 491.48	$ 14,945.46	$ 223,400.00
25	Variable flow chilled water	DuBois Library	$ 141,560.05	$ 109,154.38	$ 20,963.23	$ 271,677.66	$ 2,038.09	$ 7,683.61	$ 727.89	$ 5,095.23	$ 3,292.97	$ 640.54	$ 19,478.34	$ 291,156.00
26	Ultrasonic Humidification	DuBois Library	$ 215,006.88	$ 165,787.90	$ 31,839.77	$ 412,634.55	$ 3,095.53	$ 11,670.16	$ 1,105.55	$ 7,738.83	$ 5,001.50	$ 972.88	$ 29,584.45	$ 442,219.00
27	CO-Gen exist plant Turbosteam	Heating Plant	$ 311,920.64	$ 240,516.35	$ 46,191.46	$ 598,628.44	$ 4,490.84	$ 16,930.45	$ 1,603.87	$ 11,227.09	$ 7,255.91	$ 1,411.41	$ 42,919.56	$ 641,548.00
28	Chilled water cross connect	Herter/Fine arts	$ 113,877.28	$ 87,808.70	$ 16,863.77	$ 218,549.75	$ 1,639.53	$ 6,181.04	$ 585.55	$ 4,098.83	$ 2,649.02	$ 515.28	$ 15,669.25	$ 234,219.00
29	Variable Air Flow Conversions	Herter	$ 139,709.08	$ 107,727.14	$ 20,689.13	$ 268,125.35	$ 2,011.44	$ 7,583.14	$ 718.37	$ 5,028.61	$ 3,249.92	$ 632.17	$ 19,223.65	$ 287,349.00
30	Cooling tower VFD Controls	Lederle GRC	$ 28,448.53	$ 21,936.15	$ 4,212.86	$ 54,597.55	$ 409.58	$ 1,544.13	$ 146.28	$ 1,023.96	$ 661.77	$ 128.73	$ 3,914.45	$ 58,512.00
31	Ice rink upgrades	Mullins	$ 68,749.65	$ 53,011.61	$ 10,180.94	$ 131,942.21	$ 989.81	$ 3,731.60	$ 353.51	$ 2,474.54	$ 1,599.26	$ 311.08	$ 9,459.79	$ 141,402.00
32	Exhaust Strategy	Polymer Science	$ 263,708.07	$ 203,340.51	$ 39,051.79	$ 506,100.38	$ 3,796.70	$ 14,313.57	$ 1,355.97	$ 9,491.76	$ 6,134.39	$ 1,193.25	$ 36,285.62	$ 542,386.00
33	Re-new Ground source heat pump	Robsham	$ 25,462.78	$ 19,633.89	$ 3,770.71	$ 48,867.38	$ 366.60	$ 1,382.07	$ 130.93	$ 916.49	$ 592.32	$ 115.22	$ 3,503.62	$ 52,371.00
34	Re-new Photovoltaic	Robsham	$ 17,028.18	$ 13,130.12	$ 2,521.66	$ 32,679.96	$ 245.16	$ 924.26	$ 87.56	$ 612.90	$ 396.11	$ 77.05	$ 2,343.04	$ 35,023.00
35	115 KVA to 13.8 KVA	Sub station	$ 1,002,602.26	$ 773,088.41	$ 148,472.57	$ 1,924,163.24	$ 14,434.83	$ 54,419.32	$ 5,155.30	$ 36,087.08	$ 23,322.57	$ 4,536.66	$ 137,955.76	$ 2,062,119.00
36	Variable Air Flow Conversions	Tobin	$ 734,673.97	$ 566,493.77	$ 108,795.82	$ 1,409,963.55	$ 10,577.37	$ 39,876.69	$ 3,777.63	$ 26,443.43	$ 17,090.01	$ 3,324.32	$ 101,089.45	$ 1,511,053.00
37	Induction Radiant heating	Tobin	$ 46,606.16	$ 35,937.16	$ 6,901.78	$ 89,445.10	$ 671.01	$ 2,529.69	$ 239.65	$ 1,677.52	$ 1,084.15	$ 210.89	$ 6,412.90	$ 95,858.00
38	Serve Add. Loads with main chille	Tobin/admin	$ 40,386.69	$ 31,141.44	$ 5,980.75	$ 77,508.88	$ 581.46	$ 2,192.11	$ 207.67	$ 1,453.66	$ 939.48	$ 182.75	$ 5,557.12	$ 83,066.00
39	Window Replacement	Dorms	$ 1,973,376.41	$ 1,521,634.75	$ 292,231.80	$ 3,787,242.95	$ 28,411.43	$ 107,111.07	$ 10,146.94	$ 71,028.56	$ 45,904.75	$ 8,929.31	$ 271,532.05	$ 4,058,775.00
40	Insulate Dorm attics	Dorms	$ 55,382.07	$ 42,704.11	$ 8,201.38	$ 106,287.55	$ 797.36	$ 3,006.03	$ 284.77	$ 1,993.39	$ 1,288.30	$ 250.60	$ 7,620.45	$ 113,908.00
41	DWH Replacement	Dorms	$ 15,277.86	$ 11,780.48	$ 2,262.46	$ 29,320.80	$ 219.96	$ 829.25	$ 78.56	$ 549.90	$ 355.39	$ 69.13	$ 2,102.20	$ 31,423.00
42	Compressed air improvement	Student/Hallsworth	$ 5,379.32	$ 4,147.89	$ 796.61	$ 10,323.82	$ 77.45	$ 291.98	$ 27.66	$ 193.62	$ 125.13	$ 24.34	$ 740.18	$ 11,064.00
43	Water trmt. Non chemical type	Campus wide	$ 413,367.73	$ 318,740.35	$ 61,214.47	$ 793,322.55	$ 5,951.41	$ 22,436.80	$ 2,125.50	$ 14,878.52	$ 9,615.77	$ 1,870.44	$ 56,878.45	$ 850,201.00
44	Sewer and Irrigation abatement	Campus wide	$ 53,111.03	$ 40,952.95	$ 7,865.06	$ 101,929.04	$ 764.66	$ 2,882.76	$ 273.09	$ 1,911.65	$ 1,235.47	$ 240.32	$ 7,307.96	$ 109,237.00
Totals			$ 34,818,974.76	$ 26,848,279.80	$ 5,156,244.72	$ 66,823,499.28	$ 501,301.57	$ 1,889,906.92	$ 179,036.28	$ 1,253,253.93	$ 809,960.11	$ 157,551.92	$ 4,791,010.72	$ 71,614,510.00