

## Appendix A: Summary Overviews of 2011 DSM Program

This section of the report provides a summary of the 2011 DSM Program results. This data is presented by program category and by technology. Separate tables are presented for custom programs and prescriptive programs.

Note: Tables 29 – 34 are based on pre-audit results and are suitable for illustrative purposes only.

Table 29: Summary Overview by Program Category: Prescriptive Programs

Program Category	Sum of Net TRC Benefits	Sum of Net annual gas savings	Sum of Net kWh	Sum of Net Water Savings m3	Sum of Participants / Units	Average of Measure Life	Sum of Total Net Incremental costs	Sum of Total incentive payments
Low Income	422,179	85,362	163,107	19,023	5,003	10	57,798	54,203
Multi-Residential Water Conservation	5,845,837	1,386,859	141,847	327,039	26,125	10	504,349	317,311
Residential New Construction	1,125,396	1,167,239	1,662,570	0	2,205	13	3,669,120	147,300
Schools	1,562,527	736,416	0	0	38	25	340,373	71,000
Small Commercial	12,666,641	6,357,308	3,542,058	242,758	4,571	16	5,258,260	936,063
Water Conservation	48,867,106	7,754,910	17,554,129	2,376,342	615,874	10	2,644,673	4,155,010

Table 30: Summary Overview by Program Category: Custom Programs

Program Category	Sum of Net TRC Benefits	Sum of Net annual gas savings	Sum of Net kWh	Sum of Net Water Savings m3	Sum of Participants / Units	Average of Measure Life	Sum of Total Net Incremental costs	Sum of Total incentive payments
Agriculture	652,597	520,228	-3,256	0	15	12	183,733	70,275
College/University	1,664,200	513,507	1,064,259	11,701	13	18	497,345	62,291
Government/Municipalities	1,469,874	731,511	1,553,673	5,954	31	13	471,620	82,382
Hospitals	4,400,043	2,715,999	1,259,265	1,026	31	12	1,676,444	305,363
Hotel/Motel	5,209,769	1,269,335	3,454,101	24,015	10	22	949,980	149,020
Industrial	28,008,352	16,962,619	3,194,674	68,614	112	14	5,793,109	1,773,771
Large New Construction	10,187,820	3,701,445	6,632,186	0	56	25	6,416,323	493,471
Long Term Health Care	230,153	75,810	111,380	0	3	18	47,811	12,258
Multi-Res Non-Profit	10,318,762	5,906,555	1,477,904	0	146	18	3,382,916	1,128,163
Multi-Res Private	27,058,067	14,626,758	4,405,754	8,218	320	18	7,915,120	2,609,422
Office	9,909,186	4,302,370	3,146,642	3,768	55	16	2,196,538	574,731
Other Commercial	7,124,476	4,844,643	1,368,825	24,340	32	22	4,812,707	555,293
Retail	351,302	185,658	244,999	0	11	16	278,353	26,542
Schools	2,151,585	1,447,562	1,104,495	0	149	11	914,827	180,044
Warehouses	1,472,423	1,109,136	-18,204	0	20	16	819,286	134,439

Table 31: Summary Overview by Technology: Prescriptive Programs

Technology	Sum of Net TRC Benefits	Sum of Net Annual Gas savings m <sup>3</sup>	Sum of Net kWh	Sum of Net Water savings m <sup>3</sup>	Sum of Participants/ Units	Average of Measure Life	Sum of Total Net Incremental costs	Sum of Total incentive payments
Aerator	10,346,138	1,811,801	0	612,462	315,778	10	217,892	0
Air Curtain	75,088	76,881	-27,181	0	7	15	58,473	0
Air Doors	61,619	63,912	42,761	0	44	15	104,500	12,200
Boiler - Hydronic High Efficiency	1,562,527	736,416	0	0	38	25	340,373	71,000
CFL	9,762,898	0	17,693,421	0	153,857	8	0	0
Condensing Boiler	237,269	169,578	0	0	59	25	198,226	25,000
Energy Star	1,138,093	1,167,239	1,662,570	0	2,205	25	3,669,120	147,300
Energy Star Broiler	1,385	1,342	10	0	1	12	1,016	0
Energy Star Dishwasher	152,080	24,030	112,620	3,384	50	10	-390	0
Energy Star Fryer	114,395	135,158	2,122	0	156	12	128,294	0
Energy Star Rack Conveyor	732,946	83,164	358,758	11,712	36	20	27,374	0
Energy Star Stationary Rack	869,413	139,986	256,926	19,703	221	15	-61,880	0
ERV	303,711	247,545	0	0	31	14	180,764	70,400
Front Load washer	236,379	41,909	141,847	20,819	398	11	214,920	32,250
HRV	824,361	707,134	0	0	46	14	559,584	-250
Infrared	2,442,018	1,346,155	330,329	0	1,028	20	1,053,394	48,650
Kitchen Ventilation	2,602,993	896,264	2,411,870	0	97	15	1,254,000	65,500
Ozone Laundry	1,417,262	806,880	53,845	42,223	65	15	831,892	0
Pre-Rinse Spray Nozzle	1,569,220	845,845	0	165,736	2,529	5	379,350	383,470
Showerhead	34,750,595	7,350,047	0	2,089,122	176,367	9	2,732,778	4,494,274
Small Commercial General	-277,426	0	0	0	0	0	0	327,843
Small Commercial High Eff Boiler	1,427,954	801,208	0	0	120	25	631,140	0
Tankless	112,355	12,225	0	0	81	18	-87,477	3,250
Thermostat - Programmable	26,416	23,374	23,815	0	602	15	41,230	0

CFL: Compact Fluorescent Light bulb

Table 32: Summary Overview by Technology: Custom Programs

Technology	Sum of Net TRC Benefits	Sum of Net Annual Gas savings m <sup>3</sup>	Sum of Net kWh	Sum of Net Water savings m <sup>3</sup>	Sum of Participants/ Units	Average of Measure Life	Sum of Total Net Incremental costs	Sum of Total incentive payments
Air Curtain	21,299	11,340	4,062	0	1	15	5,203	1,323
Air Handling Unit	2,310,195	688,521	1,369,292	0	6	15	136,228	109,126
Boiler - Hydronic Condensing - Advanceme	377,561	739,571	23,869	0	15	10	841,798	137,104
Boiler - Hydronic Condensing - Replaceme	8,778,939	4,949,255	0	0	94	25	3,808,495	1,109,616
Boiler - Hydronic High Efficiency	15,398,514	6,265,594	6,632,186	0	128	25	7,781,071	824,021
Boiler - Hydronic High Efficiency - Adva	1,438,538	1,879,535	0	0	17	11	1,682,330	245,455
Boiler - Hydronic High Efficiency - Repl	11,431,997	5,221,837	0	0	89	25	1,969,171	870,577
Boiler - Steam - Advancement	212,057	20,727	297,142	3,144	1	8	12,500	3,316
Boiler - Steam - Replacement	611,663	274,522	61,320	0	2	25	124,025	30,624
Building Envelope	150,671	69,622	0	0	1	25	14,574	11,218
Burner	161,351	121,852	0	0	2	15	78,172	19,110
Condensing Economizer	600,263	455,882	0	0	2	15	262,021	106,863
Controls	14,783,701	7,172,152	6,354,823	10,595	150	15	5,141,260	936,011
Destratification	862,047	799,480	-111,737	0	22	15	649,725	104,541
Direct Contact Water Heater - Advancemen	19,854	25,092	0	175	1	10	18,999	4,043
Drain Water Heat Recovery	1,149,269	556,488	-14,199	17,343	7	25	516,608	28,708
Economizer	5,232,397	4,630,324	733,117	24,340	5	15	5,043,303	556,264
ERV/HRV	114,085	197,809	21,072	0	4	14	290,100	25,493
Furnace	444,244	390,846	0	0	4	18	360,204	62,976
Greenhouse Curtains	218,797	384,349	0	0	9	10	341,611	52,002
Heat Recovery	4,782,940	2,439,455	58,058	20,610	14	16	989,135	297,137
Industrial Equipment	14,237,002	6,914,064	796,062	34,699	22	20	2,188,242	636,704
Infrared	120,139	92,466	3,178	0	4	20	95,290	12,159
Insulation	228,998	186,547	0	0	5	15	119,875	29,918
Insulation/Caulking/Sealing	84,049	157,047	0	0	70	15	235,580	20,423
Linkageless Control	266,812	171,028	33,451	0	4	15	81,233	27,557
Make Up Air Unit	128,402	74,887	0	0	1	15	24,012	13,658
Operational Improvements	3,448,413	3,223,923	1,885,907	7,603	111	5	205,260	402,631
Oven	21,769	23,224	0	0	1	15	21,663	3,742
Ozone Laundry	188,497	65,957	-8,749	10,127	1	15	96,800	0
Pipe Insulation	59,083	67,422	0	0	4	15	66,621	9,345
Reflective Panel	421,503	348,440	0	0	17	15	287,657	35,274
Roof Top Unit	24,274	21,397	0	0	2	15	15,742	3,448
Showerheads	146,335	36,760	0	8,218	3	10	13,356	4,510
Steam Trap	3,392,711	4,281,277	0	3,289	41	5	264,420	168,783
Thermostat - Programmable	10,056	4,984	0	0	1	15	88	582
VFD	17,075,390	5,019,394	11,098,126	963	135	15	2,510,735	1,036,825
Waste Water Reduction	251,656	77,037	0	6,530	1	15	2,500	0

ERV: Energy Recovery Ventilation  
 HRV: Heat Recovery Ventilation  
 VFD: Variable Frequency Drive

Table 33: Natural Gas Savings per \$1 of Incremental Cost and \$1 of Incentive Payments by Technology

Technology	Sum of Net annual gas savings	Sum of Total Net Incremental costs	Gas Savings/m <sup>3</sup> per \$1 of Incremental costs	Sum of Total incentive payments	Gas Savings/m <sup>3</sup> per \$1 of Incentive Payments
Aerator	1,811,801	217,892	8.32	0	N/A
Air Curtain	88,220	63,676	1.39	1,323	66.68
Air Doors	63,912	104,500	0.61	12,200	5.24
Air Handling Unit	688,521	136,228	5.05	109,126	6.31
Boiler - Hydronic Condensing - Advanceme	739,571	841,798	0.88	137,104	5.39
Boiler - Hydronic Condensing - Replaceme	4,949,255	3,808,495	1.30	1,109,616	4.46
Boiler - Hydronic High Efficiency	7,002,009	8,121,444	0.86	895,021	7.82
Boiler - Hydronic High Efficiency - Adva	1,879,535	1,682,330	1.12	245,455	7.66
Boiler - Hydronic High Efficiency - Repl	5,221,837	1,969,171	2.65	870,577	6.00
Boiler - Steam - Advancement	20,727	12,500	1.66	3,316	6.25
Boiler - Steam - Replacement	274,522	124,025	2.21	30,624	8.96
Building Envelope	69,622	14,574	4.78	11,218	6.21
Burner	121,852	78,172	1.56	19,110	6.38
Condensing Boiler	169,578	198,226	0.86	25,000	6.78
Condensing Economizer	455,882	262,021	1.74	106,863	4.27
Controls	7,172,152	5,141,260	1.40	936,011	7.66
Destratification	799,480	649,725	1.23	104,541	7.65
Direct Contact Water Heater - Advancemen	25,092	18,999	1.32	4,043	6.21
Drain Water Heat Recovery	556,488	516,608	1.08	28,708	19.38
Economizer	4,630,324	5,043,303	0.92	556,264	8.32
Energy Star	1,167,239	3,669,120	0.32	147,300	7.92
Energy Star Broiler	1,342	1,016	1.32	0	N/A
Energy Star Dishwasher	24,030	-390	-61.62	0	N/A
Energy Star Fryer	135,158	128,294	1.05	0	N/A
Energy Star Rack Conveyor	83,164	27,374	3.04	0	N/A
Energy Star Stationary Rack	139,986	-61,880	-2.26	0	N/A
ERV	247,545	180,764	1.37	70,400	3.52
ERV/HRV	197,809	290,100	0.68	25,493	7.76
Front Load washer	41,909	214,920	0.20	32,250	1.30
Furnace	390,846	360,204	1.09	62,976	6.21
Greenhouse Curtains	384,349	341,611	1.13	52,002	7.39
Heat Recovery	2,439,455	989,135	2.47	297,137	8.21
HRV	707,134	559,584	1.26	0	N/A
Industrial Equipment	7,767,094	2,248,748	3.45	704,059	11.03
Infrared	1,438,621	1,148,684	1.25	60,809	23.66
Insulation	186,547	119,875	1.56	29,918	6.24
Insulation/Caulking/Sealing	157,047	235,580	0.67	20,423	7.69
Kitchen Ventilation	896,264	1,254,000	0.71	65,500	13.68
Linkageless Control	171,028	81,233	2.11	27,557	6.21
Make Up Air Unit	74,887	24,012	3.12	13,658	5.48
Operational Improvements	3,223,923	205,260	15.71	402,631	8.01
Oven	23,224	21,663	1.07	3,742	6.21
Ozone Laundry	872,838	928,692	0.94	0	N/A
Pipe Insulation	67,422	66,621	1.01	9,345	7.21
Pre-Rinse Spray Nozzle	845,845	379,350	2.23	383,470	2.21
Reflective Panel	348,440	287,657	1.21	35,274	9.88
Roof Top Unit	21,397	15,742	1.36	3,448	6.21
Showerhead	7,350,047	2,732,778	2.69	4,494,274	1.64
Showerheads	36,760	13,356	2.75	4,510	8.15
Small Commercial General	0	0	0.00	327,843	N/A
Small Commercial High Eff Boiler	801,208	631,140	1.27	0	N/A
Steam Trap	4,281,277	264,420	16.19	168,783	25.37
Tankless	12,225	-87,477	-0.14	3,250	3.76
Thermostat - Programmable	28,358	41,318	0.69	582	48.73
VFD	5,019,394	2,510,735	2.00	1,036,825	4.84
Waste Water Reduction	77,037	2,500	30.81	0	N/A

Notes

1. Small Commercial costs for Energy star broiler, dishwasher, fryer, rack conveyor, stationary rack, HRV, ozone laundry, high efficiency boiler rolled into Small commercial general

Table 34: Natural Gas Savings per \$1 of Incremental Cost and \$1 of Incentive Payments by Program

Program Category	Sum of Net Gas savings	Sum of Total Net Incremental costs	Gas Savings/m <sup>3</sup> per \$1 of Incremental Cost	Sum of Total Incentive payments	Gas Savings/m <sup>3</sup> per \$1 of Incentive Payments
Agriculture	520,228	183,733	2.83	70,275	7.40
College/University	513,507	497,345	1.03	62,291	8.24
Government/Municipalities	731,511	471,620	1.55	82,382	8.88
Hospitals	2,715,999	1,676,444	1.62	305,363	8.89
Hotel/Motel	1,269,335	949,980	1.34	149,020	8.52
Industrial	16,962,619	5,793,109	2.93	1,773,771	9.56
Large New Construction	3,701,445	6,416,323	0.58	493,471	7.50
Long Term Health Care	75,810	47,811	1.59	12,258	6.18
Low Income	85,362	57,798	1.48	54,203	1.57
Multi-Res Non-Profit	5,906,555	3,382,916	1.75	1,128,163	5.24
Multi-Res Private	14,626,758	7,915,120	1.85	2,609,422	5.61
Multi-Residential Water Conservation	1,386,859	504,349	2.75	317,311	4.37
Office	4,302,370	2,196,538	1.96	574,731	7.49
Other Commercial	4,844,643	4,812,707	1.01	555,293	8.72
Residential New Construction	1,167,239	3,669,120	0.32	147,300	7.92
Retail	185,658	278,353	0.67	26,542	6.99
Schools	2,183,978	1,255,200	1.74	251,044	8.70
Small Commercial	6,357,308	5,258,260	1.21	936,063	6.79
Warehouses	1,109,136	819,286	1.35	134,439	8.25
Water Conservation	7,754,910	2,644,673	2.93	4,155,010	1.87