

Mar 2011

Energy Consumption Records

FACILITIES DEPARTMENT

Services

Kwantlen.ca/facilities

Kwantlen
POLYTECHNIC
UNIVERSITY

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Executive Summary

The purpose of this document is to collect utility billing information on usage, summarize the usage, determine energy intensities, measure cost avoidance, and evaluate annual energy consumption at each campus to help ensure energy savings targets are achieved.

Brief History

In early 2008 we audited our energy billing information and created this document as a tool to benchmark and monitor the effectiveness of our energy efficiency programs.

In early 2009 we audited our building areas and determine revised gross area to include conditioned areas that had not been included previously such as mechanical rooms and other service areas.

Further more detailed information is provided in our Energy Management Action Plan regarding specific details about our energy efficiency project work and action plans for continued energy efficient initiatives.

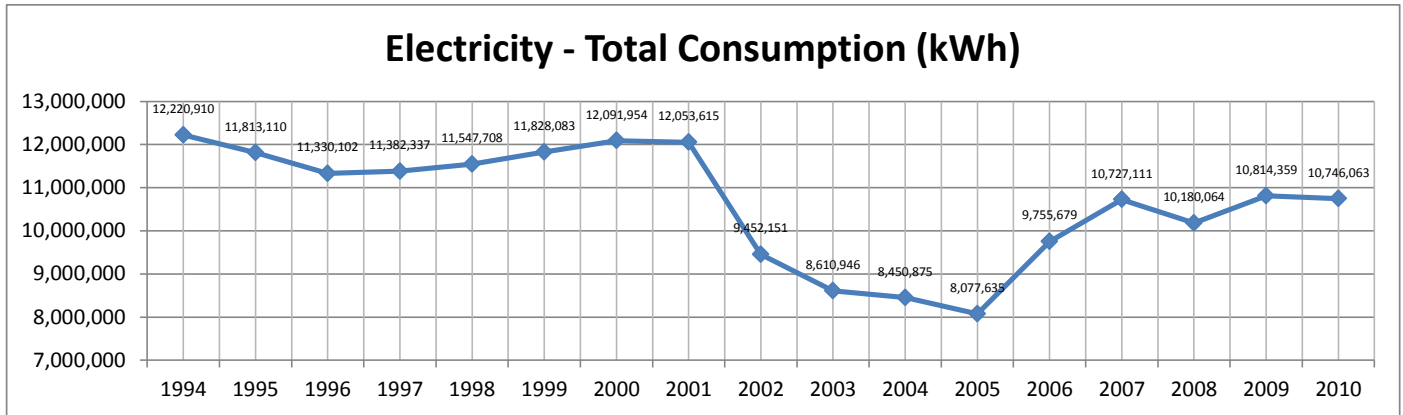
Performance 2010

In 2010 we used 62,996 kWh and 5,195 GJ less than in 2009.

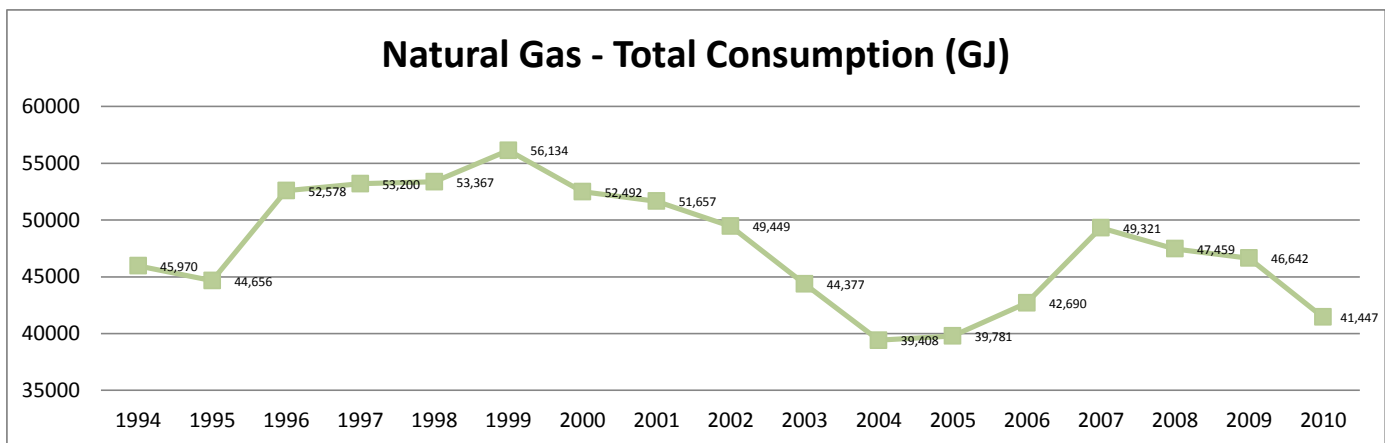
Summary of energy consumption data

	Area M2	Electric kWh	Gas		Total eKwh	Energy Density				Tonnes GHG	Costs		
			GJ	ekWh		Electric KWh/M2	Gas ekWh/M2	Total ekWh/M2	Total eGJ/M2		Electric	Gas	Total
1994	72,039	12,220,910	45,970	12,770,466	24,991,376	170	177	347	1.25	2,579	\$598,245	\$213,166	\$811,411
1995	72,464	11,813,110	44,656	12,405,437	24,218,547	163	171	334	1.20	2,504	\$576,032	\$206,807	\$782,839
1996	72,464	11,330,102	52,578	14,606,168	25,936,270	156	202	358	1.29	2,887	\$567,200	\$213,567	\$780,767
1997	72,464	11,382,337	53,200	14,778,960	26,161,297	157	204	361	1.30	2,919	\$566,669	\$230,552	\$797,221
1998	72,464	11,547,708	53,367	14,825,353	26,373,061	159	205	364	1.31	2,931	\$566,159	\$242,472	\$808,631
1999	81,202	11,828,083	56,134	15,594,025	27,422,108	146	192	338	1.22	3,075	\$583,844	\$269,363	\$853,207
2000	81,202	12,091,954	52,492	14,582,389	26,674,343	149	180	328	1.18	2,901	\$617,873	\$341,254	\$959,127
2001	81,202	12,053,615	51,657	14,350,398	26,404,013	148	177	325	1.17	2,858	\$600,850	\$604,669	\$1,205,519
2002	81,202	9,452,151	49,449	13,736,932	23,189,083	116	169	286	1.03	2,686	\$513,039	\$542,377	\$1,055,416
2003	81,202	8,610,946	44,377	12,328,042	20,938,988	106	152	258	0.93	2,414	\$497,414	\$533,134	\$1,030,548
2004	81,202	8,450,875	39,408	10,947,459	19,398,334	104	135	239	0.86	2,163	\$509,866	\$414,510	\$924,377
2005	81,202	8,077,635	39,781	11,051,023	19,128,658	99	163	236	0.85	2,172	\$467,890	\$412,453	\$880,343
2006	82,432	9,755,679	42,690	11,859,265	21,614,944	118	144	262	0.94	2,357	\$593,649	\$458,089	\$1,051,737
2007	90,304	10,727,111	49,321	13,701,485	24,428,596	119	152	271	0.97	2,710	\$637,223	\$600,666	\$1,237,889
2008	95,524	10,180,064	47,459	13,183,999	23,364,063	107	138	245	0.88	2,604	\$628,334	\$607,595	\$1,235,930
2009	100,313	10,814,359	46,642	12,957,009	23,771,368	108	129	237	0.85	2,579	\$685,518	\$565,735	\$1,251,253
2010	100,313	10,746,063	41,447	11,513,899	22,259,962	107	115	222	0.80	2,319	\$746,988	\$446,701	\$1,193,690
2011													

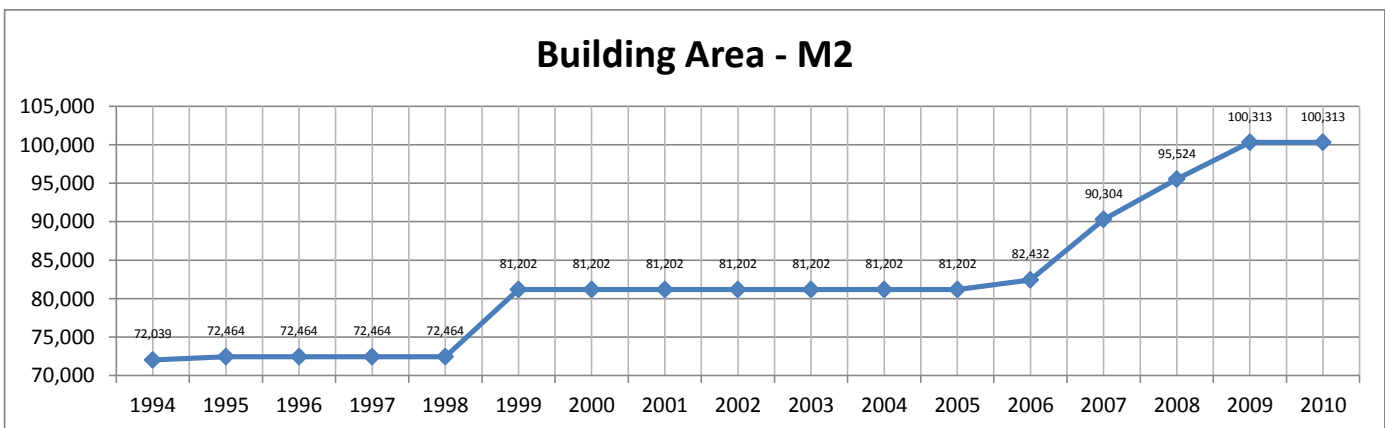
Annual comparison of electrical consumption



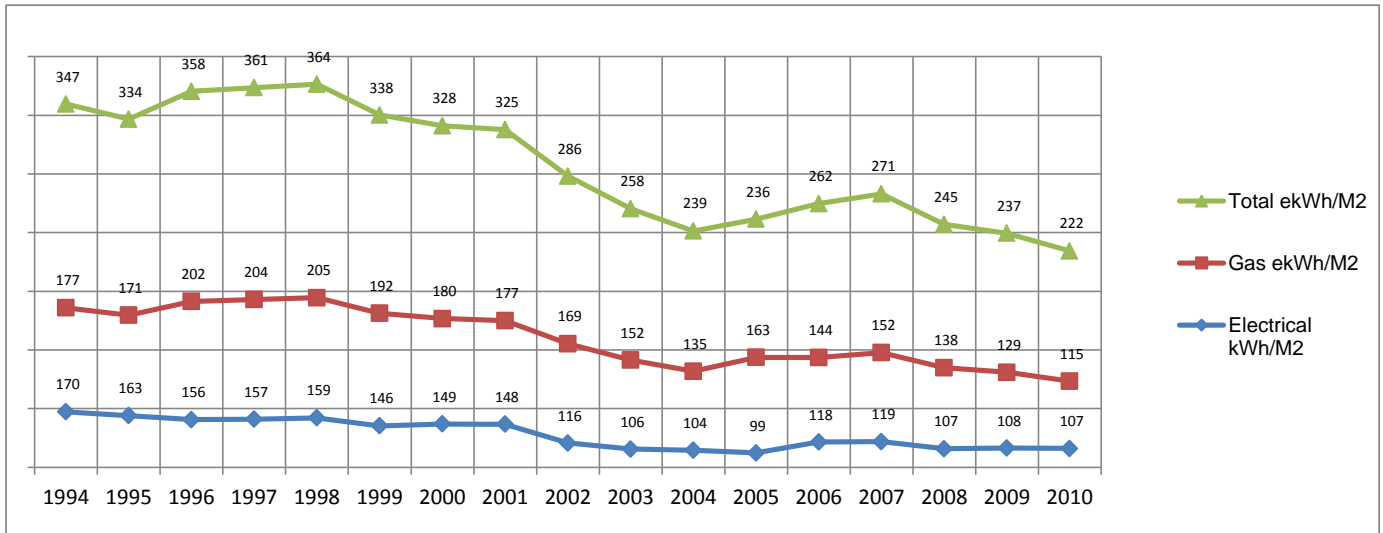
Annual comparison of natural gas consumption



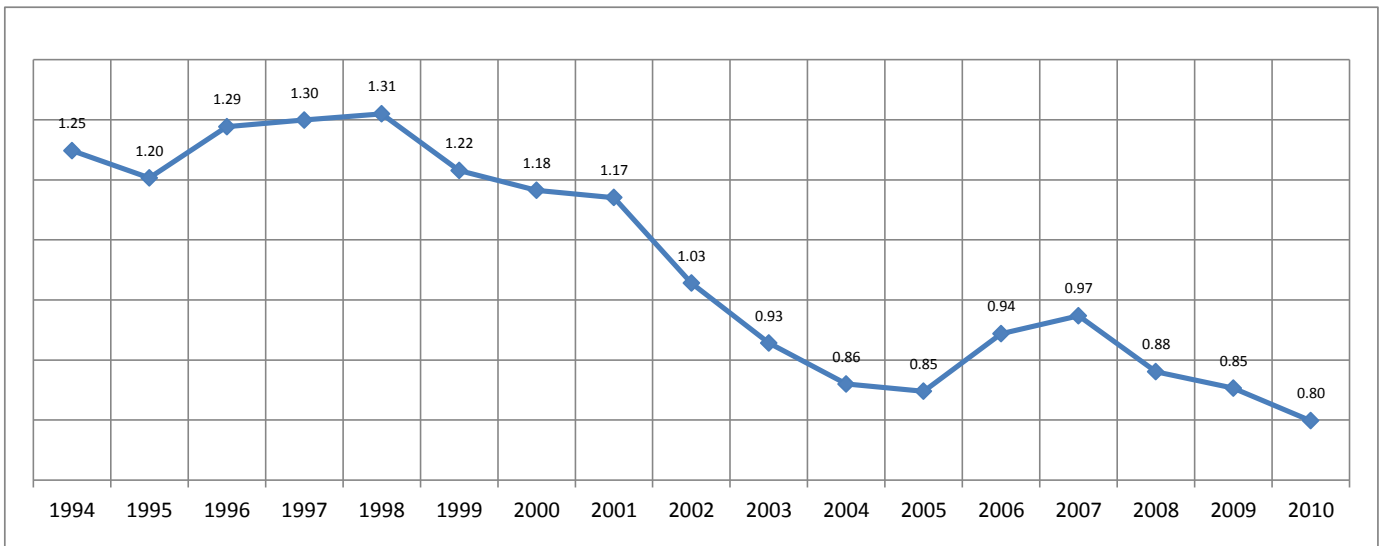
Changes in building size - m2



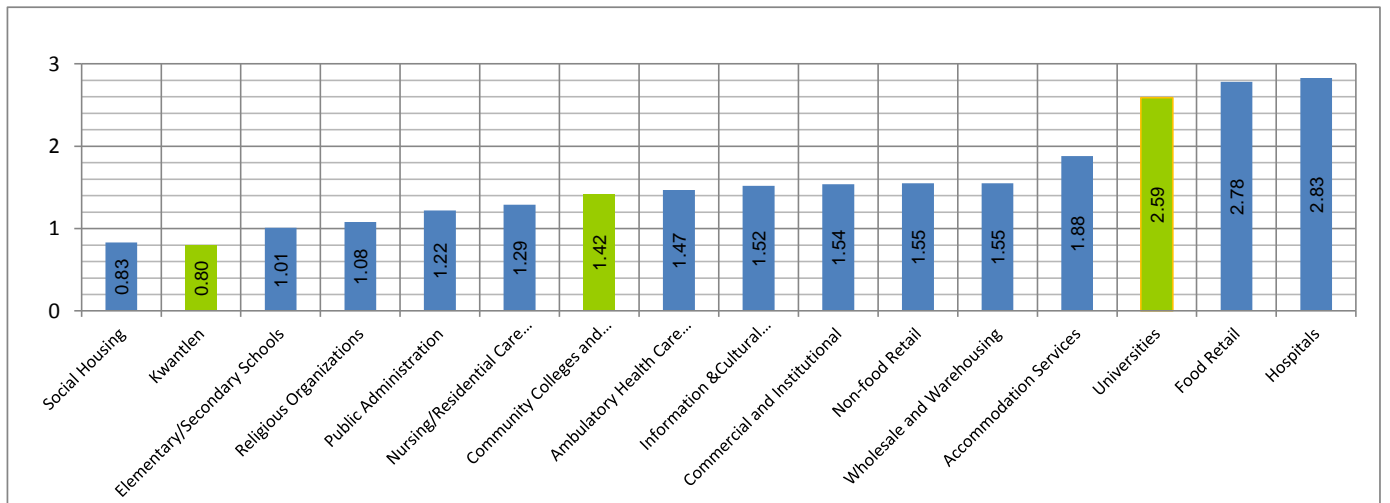
Energy intensity - ekWh/m2



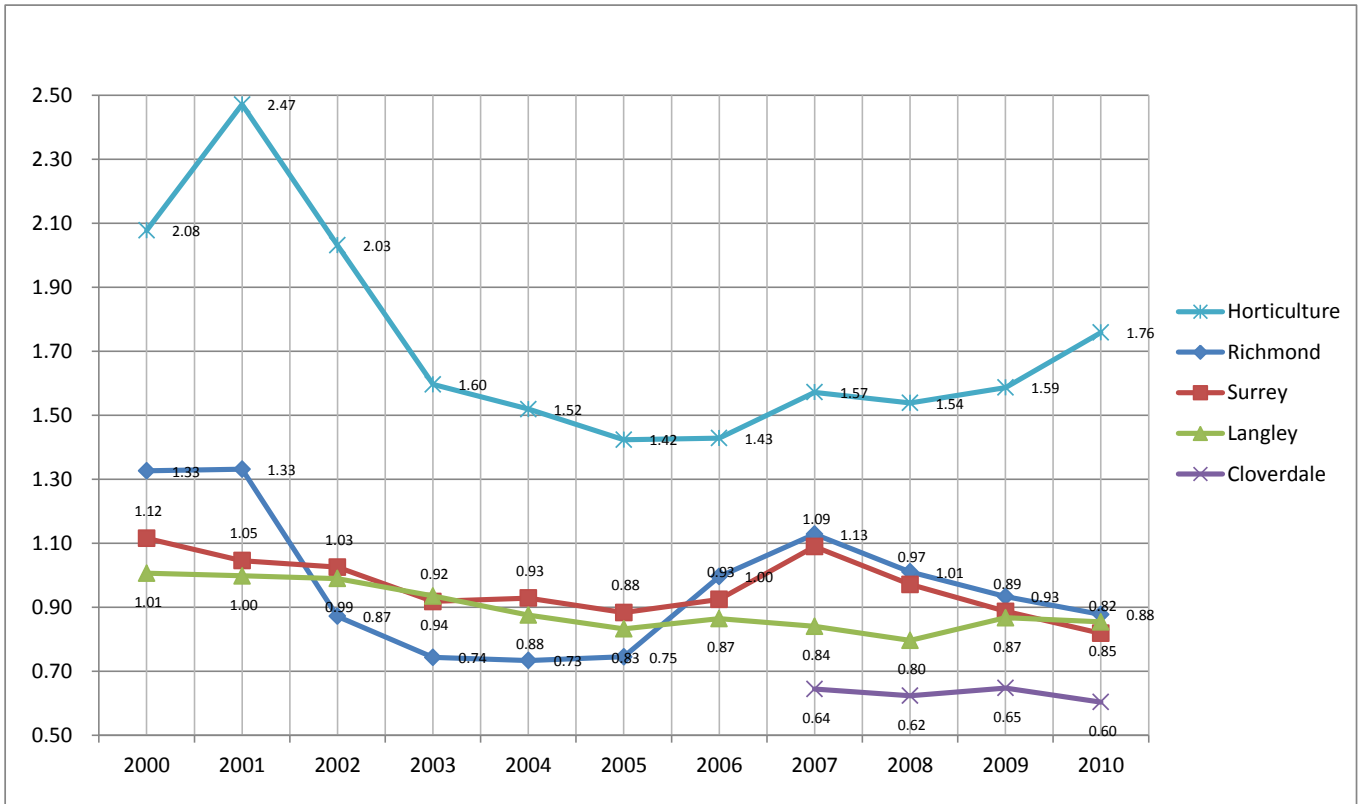
Energy intensity - eGJ/M2



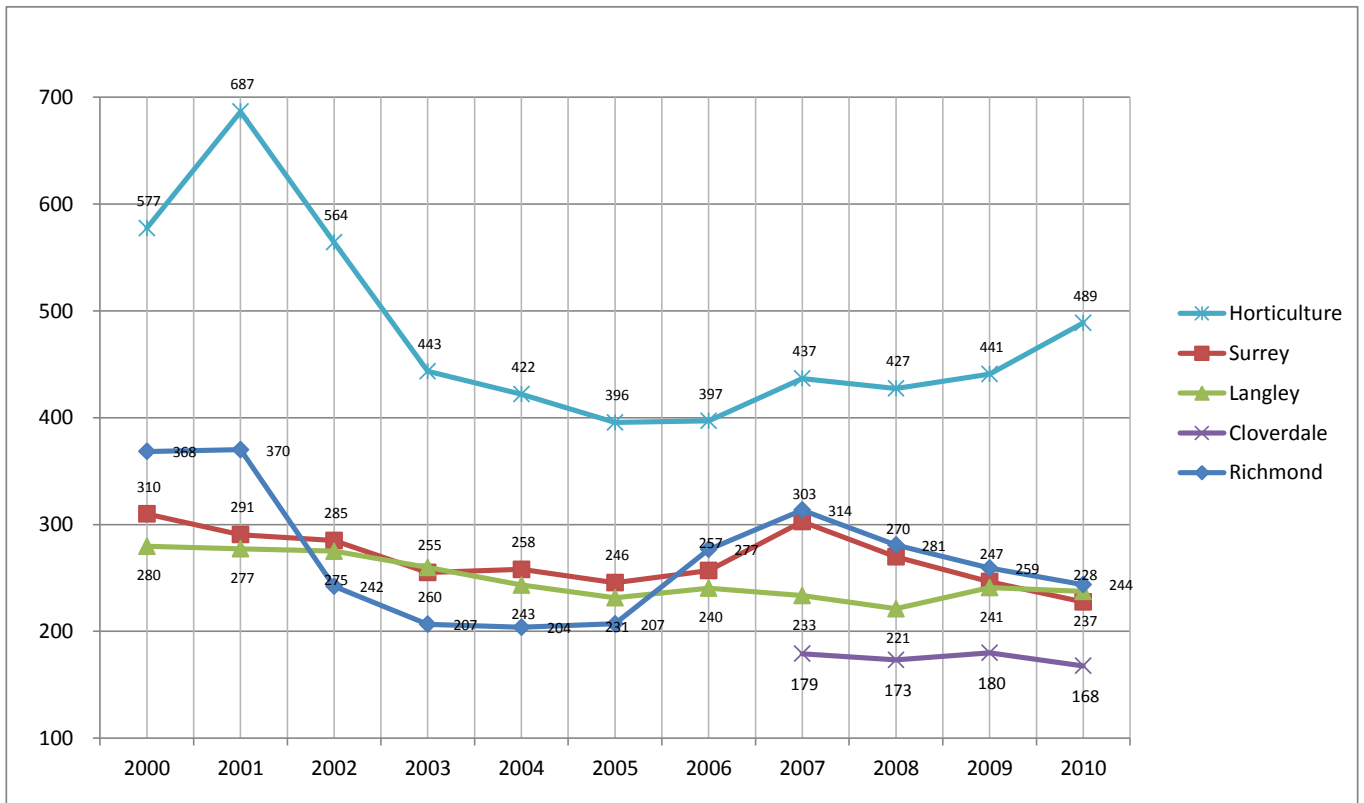
2010 Energy intensity benchmarked to NRCan 2005 Data - ekWh/m2



Energy intensity by campus - eGJ/M2



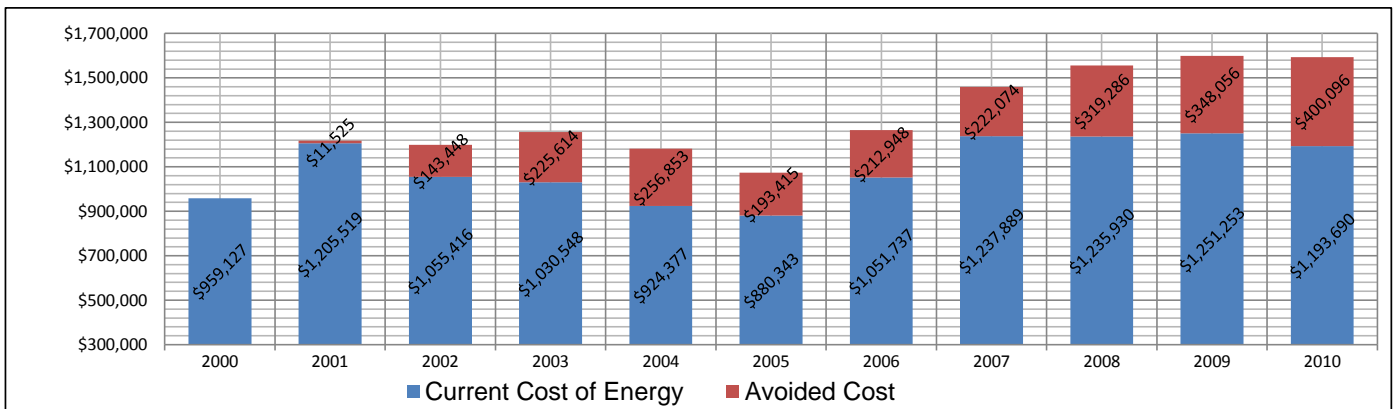
Energy intensity by campus - ekWh/M2



Energy consumption compared to the year 2000

	Units of Avoidance			Electric \$		Gas \$		GHG \$ (energy only)		Cost Avoidance \$			
	kWh	GJ	GHG tonnes	Actual	Avoided	Actual	Avoided	Actual	Avoided	Electric	Gas	Carbon Tax	Total
2000													
2001	38,217	822	42	\$600,850	\$602,755	\$604,669	\$614,289			\$1,905	\$9,620		\$11,525
2002	2,063,506	2,867	192	\$513,039	\$625,041	\$542,377	\$573,823			\$112,002	\$31,446		\$143,448
2003	2,478,902	6,860	401	\$497,414	\$640,608	\$533,134	\$615,553			\$143,195	\$82,419		\$225,614
2004	2,544,692	9,823	550	\$509,866	\$663,395	\$414,510	\$517,835			\$153,529	\$103,324		\$256,853
2005	2,681,635	3,673	247	\$467,890	\$623,222	\$412,453	\$450,536			\$155,332	\$38,084		\$193,415
2006	2,002,329	8,490	470	\$593,649	\$715,493	\$458,089	\$549,192			\$121,845	\$91,103		\$212,948
2007	2,169,968	7,650	433	\$637,223	\$766,126	\$600,666	\$693,837			\$128,903	\$93,171		\$222,074
2008	2,894,574	10,984	616	\$628,334	\$806,993	\$607,595	\$748,223			\$178,659	\$140,627		\$319,286
2009	2,985,210	13,094	723	\$685,518	\$874,749	\$565,735	\$724,560			\$189,231	\$158,825		\$348,056
2010	3,015,488	14,956	816	\$746,988	\$956,603	\$446,701	\$607,893	\$81,167	\$110,455.8	\$209,615	\$161,192	\$29,289	\$400,096
2011													
	22,874,521	79,220	4,489							\$1,394,214	\$909,810	\$29,289	\$2,333,314

Energy and GHG Cost Avoidance - 2000 to 2010



Energy Efficiency Comparison - 2000 to 2010

	% Efficient vs. 2000			Timeline and key activities
	Electric kWh/M2	Gas eKwh/M2	Total eKwh/M2	
2000				
2001	0.3%	2%	1%	
2002	21.8%	5.8%	13.0%	Complete Vestar Project (pilot project for Province under "Green Bldgs" initiative)
2003	28.8%	15.5%	21.5%	Implement EPoints project and RMAP projects
2004	30.1%	24.9%	27.3%	Implement EPoints project and RMAP projects
2005	33.2%	9.2%	28.3%	Start to focus facilities resources on construction projects and electric meter at Richmond replaced due to under recording consumption
2006	20.5%	19.9%	20.2%	Added Bldg D addition; Construction Bldg A/C in progress
2007	20.2%	15.5%	17.6%	Move into Cloverdale and out of Newton except Bldg 3/Unit 8 and fuel switching starting gas to electric due to Geoexchange
2008	28.4%	23.1%	25.5%	Focus back on energy conservation (savings back to 2004 levels).
2009	27.6%	28.1%	27.8%	ISH lab with 100% fresh air and up to 10x air changes/hour added
2010	28.1%	36.1%	32.4%	Condensing boilers at Langley and Surrey/geo expanded at Surrey
2011				

Energy intensity of each campus - 1994 to 2010

Electric - kWh/M2						
	Cloverdale	Langley	Langley H	Newton	Richmond	Surrey
1994		191		117	238	143
1995		169		118	227	148
1996		163		120	210	144
1997		160		122	208	150
1998		164		136	201	154
1999		159		129	196	124
2000		134	85	122	206	135
2001		131	85	130	202	135
2002		112	78	130	98	131
2003		109	69	112	78	127
2004		104	73	98	73	136
2005		100	71	97	67	130
2006		100	81	104	127	135
2007	82	85	86	121	141	151
2008	77	80	84	60	130	129
2009	77.07	97.96	83.04	38.79	129.61	125.27
2010	77.78	104.58	88.70	Closed	125.58	125.03

Gas - eKwh/M2						
	Cloverdale	Langley	Langley H	Newton	Richmond	Surrey
		242		162	151	189
		225		156	160	174
		279		176	183	205
		298		195	168	198
		249		205	158	252
		265		201	156	191
		145	492	187	162	174
		146	602	173	168	155
		163	486	171	144	154
		151	375	182	128	128
		140	349	111	131	122
		131	325	132	140	116
		140	316	144	149	122
	97	149	351	157	173	152
	96	141	344	80	150	140
	102.88	142.93	357.73	85.66	129.62	121.23
	89.94	132.73	399.94	Closed	118.16	102.49

Total - ekWh/M2						
	Cloverdale	Langley	Langley H	Newton	Richmond	Surrey
1994		432		279	389	332
1995		394		275	387	322
1996		442		296	393	349
1997		459		317	376	348
1998		413		341	359	406
1999		423		330	352	315
2000		280	577	309	368	310
2001		277	687	303	370	291
2002		275	564	301	242	285
2003		260	443	294	207	255
2004		243	422	209	204	258
2005		231	396	229	207	246
2006		240	397	248	277	257
2007	179	233	437	278	314	303
2008	173	221	427	140	281	270
2009	180	241	441	124	259	247
2010	168	237	489	Closed	244	228
2011						

Total - GJ/M2						
	Cloverdale	Langley	Langley H	Newton	Richmond	Surrey
		1.56		1.00	1.40	1.20
		1.42		0.99	1.39	1.16
		1.59		1.07	1.41	1.26
		1.65		1.14	1.35	1.25
		1.49		1.23	1.29	1.46
		1.52		1.19	1.27	1.13
		1.01	2.08	1.11	1.33	1.12
		1.00	2.47	1.09	1.33	1.05
		0.99	2.03	1.08	0.87	1.03
		0.94	1.60	1.06	0.74	0.92
		0.88	1.52	0.75	0.73	0.93
		0.83	1.42	0.82	0.75	0.88
		0.87	1.43	0.89	1.00	0.93
	0.64	0.84	1.57	1.00	1.13	1.09
	0.62	0.80	1.54	0.50	1.01	0.97
	0.65	0.87	1.59	0.45	0.93	0.89
	0.60	0.85	1.76	Closed	0.88	0.82

Energy and GHG intensity per student

Cloverdale

Year	Students	Units used per registered student			M2/Student
		kWh	GJ	GHG Tonnes	
07/08	1300	1106	5	0.01	14.28
08/09	1300	1100	5	0.01	14.28
09/10	1352	1068	4	0.01	13.73
10/11					

Langley

Year	Students	Units used per registered student			M2/Student
		kWh	GJ	GHG Tonnes	
07/08	2575	519	16	0.18	7.67
08/09	2599	646	14	0.18	7.79
09/10	3438	521	16	0.13	5.89
10/11					

Richmond

Year	Students	Units used per registered student			M2/Student
		kWh	GJ	GHG Tonnes	
07/08	7202	372	30	0.09	2.85
08/09	7586	351	27	0.07	2.71
09/10	7971	324	27	0.06	2.58
10/11					

Surrey

Year	Students	Units used per registered student			M2/Student
		kWh	GJ	GHG Tonnes	
07/08	9754	433	38	0.09	3.35
08/09	10023	462	35	0.09	3.69
09/10	10619	435	31	0.07	3.48
10/11					

Electrical Demand - kW

Cloverdale

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2009													
2010	392	392	392	439	419	419	396	399	446	430	406	390	410
2011													

Langley - Main

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2009													
2010	360	324	324	360	360	288	360	360	360	360	360	360	348
2011													

Langley - Hort

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2009													
2010	56	54	53	50	49	32	49	37	111	68	81	66	59
2011													

Richmond

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2009													
2010	586	586	601	619	784	752	752	788	770	558	536	547	657
2011													

Surrey

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2009													
2010	923	907	882	1002	1162	1128	1008	1096	1083	937	1008	916	1004
2011													

Electrical Demand Charges

Cloverdale

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2009													
2010	\$2,283	\$2,283	\$2,365	\$2,798	\$2,638	\$2,638	\$2,454	\$2,478	\$2,855	\$2,726	\$2,534	\$2,693	\$30,744
2011													

Langley - Main

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2009													
2010	\$2,041	\$1,769	\$1,772	\$2,165	\$2,165	\$1,478	\$2,165	\$2,165	\$2,165	\$2,165	\$2,165	\$2,278	\$24,492
2011													

Langley - Hort

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2009													
2010	\$83	\$75	\$68	\$63	\$59	\$0	\$59	\$8	\$318	\$138	\$192	\$136	\$1,198
2011													

Richmond

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2009													
2010	\$3,749	\$3,749	\$4,049	\$4,242	\$5,565	\$5,309	\$5,309	\$5,597	\$5,453	\$3,753	\$3,576	\$4,096	\$54,449
2011													

Surrey

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2009													
2010	\$6,297	\$6,176	\$6,128	\$7,314	\$8,597	\$8,324	\$7,362	\$8,068	\$7,963	\$6,792	\$7,362	\$7,404	\$87,788
2011													

Cloverdale Campus - summary of energy data

	Area	Electric	Gas		Total	Energy Density				Tonnes GHG	Costs		
	M2	kWh	GJ	ekWh	eKwh	Electric KWh/M2	Gas ekWh/M2	Total ekWh/M2	Total eGJ/M2		Electric	Gas	Total
2006													
2007	18,559	1530877	6,453	1,792,532	3,323,409	82	97	179	0.64	358	\$98,089	\$78,839	\$176,927
2008	18,559	1437224	6,398	1,777,448	3,214,672	77	96	173	0.62	353	\$91,852	\$88,494	\$180,346
2009	18,559	1430400	6,873	1,909,431	3,339,831	77	103	180	0.65	376	\$98,792	\$84,036	\$182,828
2010	18,559	1443600	6,009	1,669,189	3,112,789	78	90	168	0.60	333	\$107,628	\$63,378	\$171,006
2011													

Langley Campus - summary of energy data (1994-1999 includes horticulture)

	Area	Electric	Gas		Total	Energy Density				Tonnes GHG	Costs		
	M2	kWh	GJ	ekWh	eKWh	Electric KWh/M2	Gas ekWh/M2	Total ekWh/M2	Total eGJ/M2		Electric	Gas	Total
1994	17,029	3,247,900	14,805	4,112,829	7,360,729	191	242	432	1.56	814	\$151,902	\$65,568	\$217,470
1995	17,029	2,878,400	13,772	3,825,862	6,704,262	169	225	394	1.42	754	\$139,315	\$63,542	\$202,857
1996	17,029	2,779,199	17,073	4,742,879	7,522,078	163	279	442	1.59	916	\$143,279	\$67,685	\$210,964
1997	17,029	2,730,400	18,291	5,081,240	7,811,640	160	298	459	1.65	975	\$136,248	\$76,867	\$213,115
1998	17,029	2,799,219	15,270	4,242,006	7,041,225	164	249	413	1.49	827	\$143,589	\$74,995	\$218,584
1999	17,029	2,705,271	16,219	4,505,638	7,210,909	159	265	423	1.52	871	\$137,760	\$82,528	\$220,288
2000	17,029	2,286,000	8,913	2,475,976	4,761,976	134	145	280	1.01	498	\$130,885	\$80,809	\$211,694
2001	17,029	2,232,000	8,964	2,490,116	4,722,116	131	146	277	1.00	499	\$128,012	\$107,290	\$235,302
2002	17,029	1,906,200	9,997	2,777,250	4,683,450	112	163	275	0.99	543	\$104,663	\$128,566	\$233,229
2003	17,029	1,857,600	9,239	2,566,594	4,424,194	109	151	260	0.94	504	\$104,515	\$103,516	\$208,031
2004	17,029	1,767,600	8,552	2,375,746	4,143,346	104	140	243	0.88	468	\$104,591	\$89,643	\$194,234
2005	17,029	1,706,400	8,039	2,233,179	3,939,579	100	131	231	0.83	441	\$102,630	\$80,868	\$183,498
2006	17,029	1,708,200	8,581	2,383,885	4,092,085	100	140	240	0.87	468	\$104,382	\$99,070	\$203,452
2007	16,654	1,413,000	8,908	2,474,531	3,887,531	85	149	233	0.84	477	\$83,607	\$110,489	\$194,096
2008	16,654	1,337,400	8,448	2,346,966	3,684,366	80	141	221	0.80	452	\$82,530	\$104,156	\$186,685
2009	17,143	1,679,400	8,820	2,450,307	4,129,707	98	143	241	0.87	479	\$101,765	\$106,704	\$208,469
2010	17,143	1,792,800	8,191	2,275,410	4,068,210	105	133	237	0.85	450	\$116,455	\$85,900	\$202,355
2011													

Langley Campus (Horticulture) - summary of energy data

	Area	Electric	Gas		Total	Energy Density				Tonnes GHG	Costs															
	M2	kWh	GJ	ekWh	eKWh	Electric KWh/M2	Gas ekWh/M2	Total ekWh/M2	Total eGJ/M2		Electric	Gas	Total													
1994	Not calculated as consumption records were merged with Main Campus for this period																									
1995																										
1996																										
1997																										
1998																										
1999	Not calculated as consumption records were merged with Main Campus for this period																									
2000														3,107	265,600	5,500	1,528,011	1,793,611	85	492	577	2.08	280	\$17,350	\$11,742	\$29,092
2001														3,107	263,000	6,732	1,870,150	2,133,150	85	602	687	2.47	341	\$16,997	\$15,025	\$32,022
2002														3,107	243,300	5,436	1,510,093	1,753,393	78	486	564	2.03	276	\$16,261	\$13,599	\$29,860
2003														3,107	213,100	4,193	1,164,704	1,377,804	69	375	443	1.60	214	\$14,264	\$65,604	\$79,868
2004	3,107	227,400	3,901	1,083,809	1,311,209	73	349	422	1.52	199	\$15,945	\$42,765	\$58,710													
2005	3,107	220,000	3,632	1,008,886	1,228,886	71	325	396	1.42	186	\$15,376	\$37,011	\$52,387													
2006	3,107	253,000	3,529	980,273	1,233,273	81	316	397	1.43	182	\$17,115	\$41,956	\$59,071													
2007	3,107	266,800	3,924	1,090,004	1,356,804	86	351	437	1.57	202	\$17,746	\$49,477	\$67,223													
2008	3,107	259,800	3,845	1,068,058	1,327,858	84	344	427	1.54	197	\$18,333	\$50,498	\$68,831													
2009	3,107	258,000	4,001	1,111,478	1,369,478	83	358	441	1.59	205	\$19,003	\$50,912	\$69,916													
2010	3,107	275,600	4,473	1,242,599	1,518,199	89	400	489	1.76	229	\$22,214	\$48,336	\$70,551													
2011																										

Newton Campus - summary of energy data

	Area	Electric	Gas		Total	Energy Density				Tonnes GHG	Costs		
	M2	kWh	GJ	ekWh	eKwh	Electric KWh/M2	Gas ekWh/M2	Total ekWh/M2	Total eGJ/M2		Electric	Gas	Total
1994	14,327	1,680,610	8,342	2,317,408	3,998,018	117	162	279	1.00	455	\$94,975	\$41,798	\$136,773
1995	14,327	1,692,410	8,069	2,241,568	3,933,978	118	156	275	0.99	442	\$96,026	\$39,173	\$135,199
1996	14,327	1,723,503	9,063	2,517,701	4,241,204	120	176	296	1.07	492	\$97,105	\$40,042	\$137,147
1997	14,327	1,752,137	10,067	2,796,613	4,548,750	122	195	317	1.14	543	\$99,920	\$51,009	\$150,929
1998	14,327	1,944,489	10,582	2,939,680	4,884,169	136	205	341	1.23	573	\$98,919	\$47,208	\$146,127
1999	14,327	1,845,412	10,390	2,886,342	4,731,754	129	201	330	1.19	561	\$101,426	\$58,194	\$159,620
2000	14,327	1,749,954	9,648	2,680,270	4,430,224	122	187	309	1.11	522	\$100,408	\$77,583	\$177,991
2001	14,327	1,856,415	8,927	2,479,809	4,336,224	130	173	303	1.09	488	\$114,635	\$121,825	\$236,460
2002	14,327	1,855,851	8,838	2,455,280	4,311,131	130	171	301	1.08	484	\$108,915	\$105,894	\$214,809
2003	14,327	1,599,246	9,401	2,611,542	4,210,788	112	182	294	1.06	506	\$102,677	\$80,148	\$182,825
2004	14,327	1,399,675	5,748	1,596,822	2,996,497	98	111	209	0.75	319	\$95,084	\$63,681	\$158,765
2005	14,327	1,384,835	6,806	1,890,735	3,275,570	97	132	229	0.82	372	\$93,198	\$80,735	\$173,933
2006	14,327	1,489,079	7,447	2,068,870	3,557,949	104	144	248	0.89	406	\$98,429	\$54,845	\$153,275
2007	4,015	487,434	2,264	628,939	1,116,373	121	157	278	1.00	124	\$31,174	\$28,874	\$60,048
2008	4,015	241,506	1,149	319,303	560,809	60	80	140	0.50	63	\$17,112	\$15,839	\$32,951
2009	4,015	155,759	1,238	343,908	499,667	39	86	124	0.45	65	\$11,037	\$14,960	\$25,997
2010	4,015	34,800	405	112,592	147,392	9	28	37	0.13	21	\$5,034	\$4,865	\$9,899

Richmond Campus - summary of energy data

	Area	Electric	Gas		Total	Energy Density				Tonnes GHG	Costs		
	M2	kWh	GJ	ekWh	eKwh	Electric KWh/M2	Gas ekWh/M2	Total ekWh/M2	Total eGJ/M2		Electric	Gas	Total
1994	20,129	4,799,400	10,937	3,038,299	7,837,699	238	151	389	1.40	659	\$228,790	\$49,622	\$278,412
1995	20,554	4,662,000	11,866	3,296,375	7,958,375	227	160	387	1.39	702	\$215,958	\$54,239	\$270,197
1996	20,554	4,316,400	13,539	3,761,134	8,077,534	210	183	393	1.41	777	\$205,292	\$53,666	\$258,958
1997	20,554	4,280,600	12,434	3,454,165	7,734,765	208	168	376	1.35	721	\$202,171	\$52,876	\$255,047
1998	20,554	4,125,600	11,675	3,243,315	7,368,915	201	158	359	1.29	680	\$187,737	\$51,877	\$239,614
1999	20,554	4,032,000	11,528	3,202,478	7,234,478	196	156	352	1.27	670	\$188,500	\$57,347	\$245,847
2000	20,554	4,244,400	11,984	3,329,155	7,573,555	206	162	368	1.33	698	\$199,308	\$78,766	\$278,074
2001	20,554	4,161,600	12,395	3,443,331	7,604,931	202	168	370	1.33	716	\$169,349	\$164,305	\$333,654
2002	20,554	2,014,200	10,675	2,965,376	4,979,576	98	144	242	0.87	579	\$114,815	\$133,866	\$248,681
2003	20,554	1,605,600	9,507	2,641,017	4,246,617	78	128	207	0.74	511	\$86,953	\$130,284	\$217,237
2004	20,554	1,490,400	9,721	2,700,410	4,190,810	73	131	204	0.73	519	\$85,142	\$101,134	\$186,276
2005	20,554	1,371,600	10,382	2,884,092	4,255,692	67	140	207	0.75	549	\$79,484	\$103,400	\$182,884
2006	20,554	2,613,600	11,061	3,072,607	5,686,207	127	149	277	1.00	613	\$162,347	\$127,376	\$289,723
2007	20,554	2,898,000	12,767	3,546,756	6,444,756	141	173	314	1.13	704	\$167,257	\$156,715	\$323,972
2008	20,554	2,678,400	11,131	3,092,053	5,770,453	130	150	281	1.01	618	\$160,590	\$141,363	\$301,952
2009	20,554	2,664,000	9,590	2,664,130	5,328,130	130	130	259	0.93	541	\$171,481	\$115,540	\$287,022
2010	20,554	2,581,200	8,743	2,428,750	5,009,950	126	118	244	0.88	497	\$182,531	\$93,105	\$275,636
2011													

Surrey Campus - summary of energy data

	Area	Electric	Gas		Total	Energy Density				Tonnes GHG	Costs		
	M2	kWh	GJ	ekWh	eKwh	Electric KWh/M2	Gas ekWh/M2	Total ekWh/M2	Total eGJ/M2		Electric	Gas	Total
1994	17,447	2,493,000	11,886	3,301,931	5,794,931	143	189	332	1.20	651	\$122,578	\$56,178	\$178,756
1995	17,447	2,580,300	10,949	3,041,632	5,621,932	148	174	322	1.16	606	\$124,733	\$49,853	\$174,586
1996	17,447	2,511,000	12,903	3,584,453	6,095,453	144	205	349	1.26	702	\$121,524	\$52,174	\$173,698
1997	17,447	2,619,200	12,408	3,446,942	6,066,142	150	198	348	1.25	680	\$128,330	\$49,800	\$178,130
1998	17,447	2,678,400	15,840	4,400,352	7,078,752	154	252	406	1.46	852	\$135,914	\$68,392	\$204,306
1999	26,185	3,245,400	17,997	4,999,567	8,244,967	124	191	315	1.13	973	\$156,158	\$71,294	\$227,452
2000	26,185	3,546,000	16,447	4,568,977	8,114,977	135	174	310	1.12	903	\$169,922	\$92,354	\$262,276
2001	26,185	3,540,600	14,640	4,066,992	7,607,592	135	155	291	1.05	813	\$171,857	\$196,224	\$368,081
2002	26,185	3,432,600	14,503	4,028,933	7,461,533	131	154	285	1.03	804	\$168,385	\$160,452	\$328,837
2003	26,185	3,335,400	12,038	3,344,184	6,679,584	127	128	255	0.92	679	\$189,005	\$153,582	\$342,587
2004	26,185	3,565,800	11,486	3,190,672	6,756,472	136	122	258	0.93	657	\$209,103	\$117,287	\$326,391
2005	26,185	3,394,800	10,922	3,034,132	6,428,932	130	116	246	0.88	625	\$177,203	\$110,438	\$287,641
2006	27,415	3,691,800	12,072	3,353,629	7,045,429	135	122	257	0.93	689	\$211,375	\$134,842	\$346,217
2007	27,415	4,131,000	15,006	4,168,722	8,299,722	151	152	303	1.09	845	\$239,352	\$176,272	\$415,624
2008	32,635	4,225,734	16,487	4,580,172	8,805,906	129	140	270	0.97	921	\$257,917	\$207,246	\$465,164
2009	36,935	4,626,800	16,119	4,477,755	9,104,555	125	121	247	0.89	913	\$283,439	\$193,582	\$477,021
2010	36,935	4,618,063	13,626	3,785,358	8,403,421	125	102	228	0.82	788	\$313,126	\$151,117	\$464,243
2011													

Cloverdale Campus - electrical consumption

ELECTRIC COST - \$

Acct #: 6216372

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2006													
2007	\$8,813	\$8,011	\$7,262	\$8,106	\$8,296	\$8,637	\$8,600	\$7,593	\$7,835	\$8,211	\$8,237	\$8,488	\$98,089
2008	\$8,225	\$8,707	\$7,668	\$8,717	\$7,378	\$6,730	\$7,618	\$7,190	\$7,158	\$7,348	\$7,575	\$7,539	\$91,852
2009	\$7,841	\$7,792	\$8,737	\$7,751	\$8,737	\$7,735	\$8,652	\$7,784	\$7,860	\$8,841	\$8,841	\$8,221	\$98,792
2010	\$8,675	\$8,070	\$8,841	\$9,173	\$8,661	\$8,889	\$8,751	\$8,614	\$9,286	\$9,059	\$9,830	\$9,777	\$107,628
2011													

ELECTRIC CONSUMPTION - kWh

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2006													
2007	107377	140400	136800	142200	127800	127800	120600	113400	104400	133200	136800	140100	1530877
2008	136800	154800	129600	142200	117000	100800	108430	104794	102600	104400	115200	120600	1437224
2009	126000	124200	135000	103800	109800	109800	118800	108000	109800	133200	133200	118800	1430400
2010	131400	117000	124200	115200	108000	113400	115200	111600	117000	115200	136800	138600	1443600
2011													

Cloverdale Campus - gas consumption

GAS COST - \$

Acct #: 1515702

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2006													
2007	\$13,174	\$13,613	\$9,889	\$4,442	\$1,555	\$1,346	\$501	\$470	\$2,196	\$6,217	\$12,034	\$13,402	\$78,839
2008	\$17,425	\$12,124	\$9,266	\$8,703	\$3,480	\$2,540	\$718	\$892	\$1,710	\$6,609	\$9,771	\$15,257	\$88,494
2009	\$16,898	\$12,240	\$12,998	\$6,157	\$3,309	\$1,175	\$507	\$585	\$1,938	\$6,434	\$8,575	\$13,221	\$84,036
2010	\$9,501	\$8,039	\$8,439	\$5,482	\$3,612	\$536	\$591	\$591	\$1,989	\$5,059	\$9,237	\$10,301	\$63,378
2011													

GAS CONSUMPTION - GJ

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2006													
2007	1,099	1,136	772	363	163	45	27	25	189	547	978	1,109	6,453
2008	1,432	979	673	262	262	176	40	53	119	510	716	1,178	6,398
2009	1,321	969	1,035	483	280	74	24	24	103	498	808	1,254	6,873
2010	847	725	760	484	336	139	30	32	147	418	1,010	1,081	6,009
2011													

Langley Campus (Main Site) - electrical consumption

ELECTRIC COST - \$

Note: includes Horticulture from 1994 - 1999 (bold text)

Acct #: 2134-2602-481

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	\$10,047	\$17,814	\$14,264	\$22,788	\$1,187	\$13,323	\$11,323	\$11,730	\$14,046	\$12,454	\$11,385	\$11,541	\$151,902
1995	\$19,393	\$10,111	\$10,797	\$9,760	\$10,689	\$11,174	\$10,701	\$10,512	\$12,755	\$12,083	\$10,853	\$10,487	\$139,315
1996	\$12,211	\$20,612	\$10,043	\$10,555	\$11,146	\$10,545	\$10,602	\$12,107	\$11,907	\$11,067	\$10,984	\$11,500	\$143,279
1997	\$10,098	\$11,001	\$11,379	\$9,678	\$12,767	\$10,943	\$11,662	\$12,834	\$13,066	\$11,027	\$10,972	\$10,821	\$136,248
1998	\$10,921	\$11,984	\$10,601	\$10,473	\$12,246	\$11,926	\$11,414	\$12,889	\$13,645	\$12,300	\$11,433	\$13,757	\$143,589
1999	\$10,317	\$12,645	\$11,365	\$12,436	\$10,035	\$11,350	\$11,539	\$11,473	\$12,561	\$10,793	\$11,369	\$11,877	\$137,760
2000	\$10,153	\$10,153	\$10,985	\$10,483	\$9,633	\$11,504	\$10,738	\$10,714	\$12,433	\$10,547	\$10,617	\$12,925	\$130,885
2001	\$9,658	\$10,813	\$11,275	\$10,547	\$11,148	\$11,537	\$10,922	\$10,796	\$12,059	\$10,719	\$8,887	\$9,651	\$128,012
2002	\$8,946	\$9,359	\$9,036	\$8,481	\$7,838	\$8,664	\$8,449	\$8,126	\$9,747	\$8,674	\$8,610	\$8,733	\$104,663
2003	\$8,733	\$8,733	\$8,293	\$8,157	\$7,326	\$8,510	\$8,609	\$8,671	\$10,201	\$9,489	\$9,057	\$8,734	\$104,515
2004	\$8,159	\$8,857	\$8,540	\$8,765	\$7,596	\$9,625	\$8,643	\$8,681	\$8,617	\$9,137	\$9,187	\$8,785	\$104,591
2005	\$8,122	\$8,713	\$9,118	\$8,188	\$8,374	\$9,491	\$7,912	\$7,644	\$8,843	\$8,454	\$8,986	\$8,785	\$102,630
2006	\$8,521	\$8,919	\$8,924	\$8,181	\$8,374	\$7,350	\$8,554	\$8,830	\$10,008	\$8,771	\$8,837	\$9,116	\$104,382
2007	\$7,784	\$8,399	\$5,705	\$7,104	\$6,622	\$5,592	\$6,688	\$6,560	\$7,742	\$7,064	\$7,546	\$6,800	\$83,607
2008	\$7,211	\$7,001	\$7,389	\$4,816	\$5,249	\$5,990	\$6,688	\$6,472	\$8,020	\$8,191	\$8,002	\$7,500	\$82,530
2009	\$8,364	\$8,364	\$7,810	\$7,733	\$5,739	\$8,935	\$9,166	\$8,633	\$8,712	\$8,796	\$9,468	\$10,045	\$101,765
2010	\$9,846	\$8,489	\$8,141	\$9,862	\$9,035	\$8,130	\$9,992	\$10,650	\$10,403	\$9,908	\$11,062	\$10,937	\$116,455
2011													

ELECTRIC CONSUMPTION - kWh

Note: includes Horticulture from 1994 - 1999 (bold text)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	20500	394200	351000	431200	227200	220000	256800	234800	281200	244200	241800	345000	3247900
1995	405000	207600	237000	204800	221600	220800	210400	209000	263400	234600	233600	230600	2878400
1996	207900	434800	206200	217000	180600	211000	200800	229200	211200	227033	226233	227233	2779199
1997	198000	229200	248000	195000	246100	208300	212200	257600	262200	225000	224200	224600	2730400
1998	228200	247600	213400	209400	227200	217400	203000	250400	255400	221400	240200	285619	2799219
1999	221381	273600	232800	238200	179200	197890	206000	202600	236200	221400	240800	255200	2705271
2000	181800	181800	205200	205200	156600	179690	167710	176400	210600	207000	189000	225000	2286000
2001	176400	194400	214200	180000	183600	180000	171000	185400	214200	183600	167400	181800	2232000
2002	162000	164842	159158	162000	144000	153000	149400	147600	169200	167400	165600	162000	1906200
2003	160200	162000	163800	149400	133200	144000	142200	136800	171000	160200	174600	160200	1857600
2004	162000	158400	156600	153000	129600	142200	124200	129600	135000	160200	163800	153000	1767600
2005	149400	144000	158400	147600	129600	122400	129600	122400	140400	151200	158400	153000	1706400
2006	153000	156600	163800	136800	129600	111600	124000	128000	154800	151200	145800	153000	1708200
2007	131400	142200	124200	117000	104400	84600	102600	109800	118800	122400	131400	124200	1413000
2008	135000	122400	124200	93600	104400	88200	84600	84600	124200	129600	124200	122400	1337400
2009	138600	138600	140400	122400	109800	136800	149400	129600	136800	154800	156600	165600	1679400
2010	165600	140400	131400	145800	127800	122400	149400	163800	158400	147600	172800	167400	1792800
2011													

Langley Campus (Main Site) - gas consumption

GAS COST - \$

Note: includes Horticulture from 1994 - 1999 (bold text)

Acct #: 1180023

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	\$5,438	\$7,202	\$7,560	\$5,715	\$3,663	\$3,366	\$2,348	\$2,364	\$3,231	\$4,853	\$8,867	\$10,961	\$65,568
1995	\$9,242	\$8,742	\$8,381	\$5,091	\$3,244	\$2,007	\$1,120	\$1,185	\$2,976	\$4,764	\$7,238	\$9,552	\$63,542
1996	\$8,061	\$15,018	\$6,327	\$4,550	\$3,555	\$1,474	\$1,891	\$982	\$1,220	\$7,374	\$5,716	\$11,517	\$67,685
1997	\$12,352	\$10,112	\$11,352	\$4,387	\$4,505	\$3,058	\$2,391	\$2,977	\$3,266	\$4,999	\$8,441	\$9,027	\$76,867
1998	\$11,294	\$10,986	\$6,999	\$4,791	\$3,673	\$3,050	\$2,320	\$1,979	\$3,174	\$4,777	\$8,556	\$13,396	\$74,995
1999	\$11,504	\$10,278	\$9,402	\$7,601	\$6,230	\$4,792	\$4,012	\$2,030	\$3,387	\$6,403	\$7,508	\$9,381	\$82,528
2000	\$17,523	\$14,335	\$7,501	\$3,865	\$3,486	\$1,784	\$1,015	\$1,118	\$1,641	\$3,752	\$9,724	\$15,065	\$80,809
2001	\$13,996	\$17,395	\$11,835	\$11,209	\$5,235	\$4,019	\$1,600	\$1,800	\$2,526	\$8,387	\$11,647	\$17,641	\$107,290
2002	\$18,315	\$17,242	\$18,848	\$11,192	\$8,402	\$3,891	\$2,741	\$2,715	\$5,240	\$11,013	\$13,222	\$15,745	\$128,566
2003	\$14,227	\$13,513	\$14,279	\$8,439	\$7,091	\$3,869	\$2,441	\$2,118	\$3,885	\$7,563	\$11,055	\$15,036	\$103,516
2004	\$17,253	\$13,538	\$10,993	\$6,013	\$3,605	\$1,077	\$475	\$517	\$2,545	\$7,647	\$12,093	\$13,887	\$89,643
2005	\$15,581	\$13,192	\$9,503	\$6,389	\$669	\$541	\$457	\$343	\$2,231	\$5,946	\$12,516	\$13,500	\$80,868
2006	\$13,224	\$13,042	\$11,554	\$7,394	\$3,252	\$584	\$572	\$501	\$2,495	\$8,383	\$17,531	\$20,538	\$99,070
2007	\$22,816	\$14,793	\$12,788	\$8,207	\$3,586	\$498	\$446	\$480	\$2,923	\$9,207	\$15,577	\$19,168	\$110,489
2008	\$18,476	\$11,471	\$10,785	\$10,181	\$4,467	\$2,923	\$322	\$350	\$2,467	\$9,684	\$12,334	\$20,697	\$104,156
2009	\$19,297	\$15,044	\$13,640	\$8,943	\$3,903	\$953	\$519	\$599	\$2,722	\$11,211	\$12,152	\$17,721	\$106,704
2010	\$13,849	\$10,953	\$11,260	\$8,004	\$4,955	\$2,598	\$1,292	\$591	\$2,145	\$8,060	\$10,724	\$11,469	\$85,900
2011													

GAS CONSUMPTION - GJ

Note: includes Horticulture from 1994 - 1999 (bold text)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	1985	1438	1467	1308	855	791	546	553	754	1133	1787	2188	14805
1995	1852	1759	1692	1210	781	486	274	297	747	1174	1513	1987	13772
1996	1657	3452	1452	1301	1044	725	552	282	678	1759	1539	2632	17073
1997	2822	2165	2429	1441	1193	798	614	776	855	1332	1847	2019	18291
1998	2195	2005	1630	1104	825	534	484	401	700	1100	1742	2550	15270
1999	2253	2140	2046	1413	1227	957	793	286	613	1139	1485	1867	16219
2000	1383	1113	1260	632	558	266	140	128	273	670	1146	1342	8913
2001	1296	1265	1063	786	477	337	179	89	307	770	988	1407	8964
2002	1537	1321	1410	897	570	206	146	188	412	888	1067	1357	9997
2003	1339	1263	1057	846	450	160	60	104	307	719	1449	1485	9239
2004	1680	1312	1065	557	340	86	24	24	218	727	1183	1337	8552
2005	1537	1297	938	632	48	35	28	24	246	672	1213	1368	8039
2006	1205	1285	1128	710	283	30	26	26	206	809	1327	1547	8581
2007	1776	1104	997	695	318	26	22	26	258	819	1271	1595	8908
2008	1533	1142	1072	790	341	205	9	11	79	755	908	1604	8448
2009	1511	1195	1150	684	334	35	25	25	150	881	1154	1676	8820
2010	1244	995	1021	716	469	235	105	32	160	678	1177	1359	8191
2011													

Langley Campus (Horticulture) - electrical consumption

ELECTRIC COST - \$

Acct #: 2134-2600-531

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec														
1994	Energy information for this time period included in main campus totals																									
1995																										
1996																										
1997																										
1998																										
1999	Energy information for this time period included in main campus totals																									
2000														\$1,417	\$1,656	\$1,627	\$1,611	\$1,396	\$1,294	\$1,207	\$1,321	\$1,359	\$1,420	\$1,331	\$1,711	\$17,350
2001														\$1,282	\$1,505	\$1,543	\$1,543	\$1,636	\$1,287	\$1,173	\$1,173	\$1,406	\$1,445	\$1,370	\$1,634	\$16,997
2002														\$1,480	\$1,498	\$1,444	\$1,483	\$1,323	\$1,323	\$1,208	\$1,171	\$1,267	\$1,336	\$1,314	\$1,414	\$16,261
2003														\$1,369	\$1,400	\$1,475	\$1,425	\$956	\$867	\$837	\$807	\$1,004	\$1,319	\$1,378	\$1,426	\$14,264
2004	\$1,439	\$1,379	\$1,346	\$1,409	\$1,293	\$1,221	\$1,025	\$1,024	\$1,440	\$1,426	\$1,430	\$1,513	\$15,945													
2005	\$1,367	\$1,225	\$1,423	\$1,367	\$1,036	\$858	\$939	\$1,193	\$1,338	\$1,405	\$1,427	\$1,798	\$15,376													
2006	\$1,380	\$1,944	\$1,691	\$1,544	\$1,036	\$1,001	\$1,320	\$1,362	\$1,381	\$1,400	\$1,577	\$1,480	\$17,115													
2007	\$1,481	\$1,720	\$1,743	\$1,476	\$1,442	\$1,277	\$1,089	\$1,259	\$1,425	\$1,534	\$1,630	\$1,669	\$17,746													
2008	\$1,853	\$1,727	\$1,696	\$1,631	\$1,296	\$1,069	\$1,103	\$1,244	\$1,507	\$1,628	\$1,630	\$1,949	\$18,333													
2009	\$1,744	\$1,768	\$1,798	\$1,625	\$1,298	\$1,123	\$1,001	\$1,408	\$1,489	\$1,719	\$1,903	\$2,128	\$19,003													
2010	\$1,963	\$1,827	\$1,863	\$2,006	\$1,643	\$1,189	\$1,272	\$1,487	\$2,067	\$1,994	\$2,406	\$2,499	\$22,214													
2011																										

ELECTRIC CONSUMPTION - kWh

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total													
1994	Energy information for this time period included in main campus totals																									
1995																										
1996																										
1997																										
1998																										
1999	Energy information for this time period included in main campus totals																									
2000														21600	27400	26800	26800	21200	17800	16200	18800	20600	22200	19600	26600	265600
2001														20600	24400	24600	24600	26200	17400	16200	16200	21600	22600	20600	28000	263000
2002														23800	24200	22600	23800	18800	18800	16400	15400	17800	19800	19600	22300	243300
2003														22300	21800	23800	22400	12800	11600	11200	10800	13400	19200	21400	22400	213100
2004	23000	21200	20600	19800	17000	15200	12800	12800	20600	20400	20800	23200	227400													
2005	19400	17800	21200	19800	13000	11000	12000	15800	18600	20200	20800	30400	220000													
2006	19200	33600	27000	23600	13000	15000	16829	17371	18400	18800	23400	26800	253000													
2007	24800	26800	27200	26600	20800	16600	15600	16200	19800	22000	24600	25800	266800													
2008	30400	27000	26200	23000	16200	12800	13200	15000	20400	22800	22200	30600	259800													
2009	25800	26000	28600	20800	14800	12800	11400	17000	18400	23000	27400	32000	258000													
2010	28400	25400	25200	26000	18200	12400	12600	16200	21000	24000	31600	34600	275600													
2011																										

Langley Campus (Horticulture) - gas consumption

GAS COST - \$

Acct #: 11880022

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	Energy information for this time period included in main campus totals												
1995													
1996													
1997													
1998													
1999													
2000	\$1,340	\$1,294	\$1,225	\$968	\$997	\$776	\$657	\$514	\$577	\$740	\$1,138	\$1,516	\$11,742
2001	\$1,542	\$1,345	\$1,275	\$1,119	\$1,152	\$1,059	\$989	\$1,080	\$1,165	\$1,402	\$1,296	\$1,601	\$15,025
2002	\$1,417	\$1,228	\$1,559	\$1,123	\$1,000	\$794	\$887	\$903	\$1,046	\$1,223	\$1,163	\$1,256	\$13,599
2003	\$8,892	\$8,522	\$9,441	\$5,346	\$4,720	\$2,876	\$1,945	\$1,759	\$2,690	\$4,891	\$8,975	\$5,547	\$65,604
2004	\$6,017	\$4,341	\$4,560	\$3,384	\$2,203	\$1,616	\$1,737	\$2,109	\$2,708	\$3,674	\$3,822	\$6,594	\$42,765
2005	\$4,865	\$5,421	\$4,248	\$3,443	\$2,387	\$1,856	\$1,452	\$1,161	\$1,471	\$1,937	\$3,492	\$5,278	\$37,011
2006	\$5,155	\$4,965	\$4,948	\$3,935	\$2,242	\$1,551	\$1,448	\$1,698	\$2,362	\$2,807	\$4,478	\$6,367	\$41,956
2007	\$7,260	\$5,782	\$5,342	\$3,706	\$3,183	\$3,010	\$2,306	\$2,672	\$2,734	\$3,183	\$4,281	\$6,018	\$49,477
2008	\$6,869	\$5,989	\$5,339	\$4,980	\$2,906	\$2,672	\$2,598	\$2,529	\$2,946	\$3,422	\$3,106	\$7,143	\$50,498
2009	\$6,661	\$5,172	\$5,472	\$4,804	\$3,539	\$2,722	\$1,678	\$1,931	\$3,839	\$4,213	\$3,696	\$7,186	\$50,912
2010	\$5,436	\$4,772	\$4,286	\$3,557	\$2,936	\$1,768	\$1,543	\$1,836	\$2,872	\$3,872	\$6,963	\$8,495	\$48,336
2011													

GAS CONSUMPTION - GJ

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	Energy information for this time period included in main campus totals												
1995													
1996													
1997													
1998													
1999													
2000	663	638	598	452	469	343	276	195	231	323	549	763	5500
2001	715	610	573	490	508	459	422	470	515	641	584	746	6732
2002	593	500	663	448	387	286	332	340	410	497	468	513	5436
2003	487	492	563	363	228	193	141	165	202	338	486	535	4193
2004	573	407	429	305	200	139	135	146	233	339	360	637	3901
2005	466	521	408	331	225	175	139	165	154	203	324	522	3632
2006	450	476	471	368	189	108	89	133	194	257	327	467	3529
2007	507	422	407	304	272	251	192	233	240	271	337	489	3924
2008	568	475	421	378	216	186	187	180	217	256	217	543	3845
2009	510	399	450	373	301	194	122	113	217	320	336	667	4001
2010	476	422	374	307	269	153	130	144	221	315	775	887	4473
2011													

Newton Campus - electrical consumption

ELECTRIC COST - \$

Acct #: 2074 2501 692

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	\$6,947	\$7,708	\$7,100	\$9,790	\$4,815	\$8,158	\$8,509	\$7,681	\$8,080	\$8,518	\$7,264	\$10,405	\$94,975
1995	\$7,349	\$9,309	\$6,119	\$8,877	\$7,778	\$8,270	\$7,241	\$7,165	\$7,967	\$8,888	\$6,974	\$10,089	\$96,026
1996	\$6,691	\$9,758	\$7,137	\$8,808	\$7,342	\$8,201	\$11,107	\$7,044	\$5,565	\$9,221	\$7,431	\$8,800	\$97,105
1997	\$6,443	\$12,590	\$6,817	\$9,314	\$7,586	\$8,187	\$7,564	\$8,723	\$7,021	\$8,953	\$7,173	\$9,549	\$99,920
1998	\$8,412	\$8,375	\$8,677	\$7,778	\$8,254	\$6,693	\$8,375	\$8,450	\$8,442	\$7,876	\$8,846	\$8,741	\$98,919
1999	\$8,925	\$8,864	\$8,823	\$8,800	\$7,901	\$7,950	\$7,525	\$7,485	\$8,211	\$10,233	\$8,554	\$8,155	\$101,426
2000	\$8,013	\$8,880	\$9,566	\$9,862	\$7,555	\$7,133	\$8,044	\$7,513	\$8,064	\$7,793	\$8,570	\$9,415	\$100,408
2001	\$9,360	\$10,001	\$10,182	\$9,564	\$9,493	\$9,114	\$9,554	\$8,802	\$9,678	\$9,354	\$9,488	\$10,045	\$114,635
2002	\$8,215	\$8,364	\$10,446	\$9,787	\$8,930	\$9,852	\$8,880	\$8,317	\$9,220	\$8,629	\$9,369	\$8,906	\$108,915
2003	\$8,586	\$8,851	\$8,710	\$8,754	\$8,635	\$8,352	\$7,996	\$7,583	\$8,241	\$8,398	\$9,304	\$9,267	\$102,677
2004	\$8,405	\$8,512	\$8,126	\$9,165	\$7,984	\$8,135	\$7,155	\$6,850	\$7,663	\$7,891	\$8,243	\$6,955	\$95,084
2005	\$7,109	\$7,462	\$7,877	\$8,154	\$10,331	\$6,896	\$7,109	\$7,132	\$7,243	\$7,790	\$8,179	\$7,916	\$93,198
2006	\$8,832	\$9,367	\$8,022	\$7,705	\$8,164	\$7,844	\$8,157	\$7,585	\$7,047	\$7,854	\$8,689	\$9,165	\$98,429
2007	\$7,467	\$3,059	\$2,736	\$2,445	\$2,386	\$2,637	\$2,139	\$2,081	\$2,069	\$1,915	\$2,007	\$232	\$31,174
2008	\$2,838	\$1,683	\$1,968	\$1,423	\$338	\$182	\$266	\$216	\$471	\$1,635	\$2,277	\$3,815	\$17,112
2009	\$1,682	\$1,838	\$555	\$555	\$555	\$836	\$836	\$836	\$836	\$836	\$836	\$836	\$11,037
2010	\$839	\$839	\$839	\$839	\$839	\$839	Campus Shut Down						\$5,034

ELECTRIC CONSUMPTION - kWh

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	126060	136705	124020	168635	132120	141474	146083	123030	139260	149020	126600	167603	1680610
1995	139140	165341	110760	161601	139200	140510	123240	124122	136760	160600	124920	166216	1692410
1996	120960	167308	127680	150626	133380	147706	199200	128207	112260	157036	138840	140300	1723503
1997	105720	208988	126120	202666	131580	130272	128880	151300	121160	160171	128680	156600	1752137
1998	161937	160137	155490	141268	150358	131098	157027	159965	151906	134686	220848	219769	1944489
1999	163343	158306	155547	159033	141149	140310	137746	139367	147820	190545	156662	155584	1845412
2000	144558	147978	152099	148859	133822	122606	146584	141005	143168	142994	154945	171336	1749954
2001	146370	158372	164639	152580	155488	144212	150364	136686	162130	155295	156129	174150	1856415
2002	170322	174643	172812	153136	151431	157975	143531	128955	151572	141515	169428	140531	1855851
2003	131917	140861	136650	135652	135726	127087	123738	115638	129773	130433	152576	139198	1599246
2004	135726	134407	128523	135189	118893	114478	97757	91596	108314	113955	125040	95797	1399675
2005	109562	108843	121917	120179	151174	98856	106471	100015	108252	119234	123045.5	117286.5	1384835
2006	140544	136223.5	124823	116843	119329	117469	120499	110479	119618	127778	125637	129837	1489079
2007	112002	55423	39550	34511	32752	37792	29970	30930	28798	29038	28060	28610	487434
2008	6940.5	27625	16825	13633	22034	19680	22800	25229	20160	19920	21219	25440	241505.5
2009	21600	24960	6720	6000	6480	12857	12857	12857	12857	12857	12857	12857	155759
2010	5,800	5,800	5,800	5,800	5,800	5,800	Campus Shut Down						\$34,800

Newton Campus - gas consumption

GAS COST - \$

Acct #: 879065 & 879066

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	\$4,473	\$8,327	\$3,214	\$3,301	\$630	\$546	\$327	\$309	\$331	\$2,921	\$5,864	\$11,555	\$41,798
1995	\$5,621	\$7,482	\$2,900	\$2,965	\$363	\$492	\$145	\$557	\$419	\$4,075	\$3,991	\$10,163	\$39,173
1996	\$6,791	\$7,099	\$3,068	\$2,876	\$1,029	\$1,143	\$342	\$278	\$589	\$3,494	\$6,542	\$6,791	\$40,042
1997	\$7,084	\$13,101	\$5,522	\$4,014	\$873	\$1,209	\$374	\$723	\$503	\$3,192	\$4,680	\$9,734	\$51,009
1998	\$7,590	\$6,434	\$4,725	\$3,187	\$1,595	\$909	\$628	\$675	\$1,173	\$2,966	\$6,704	\$10,622	\$47,208
1999	\$8,494	\$8,213	\$6,464	\$4,997	\$3,504	\$2,406	\$980	\$788	\$1,623	\$4,440	\$6,749	\$9,536	\$58,194
2000	\$10,351	\$8,413	\$7,262	\$4,684	\$3,240	\$1,501	\$1,324	\$1,444	\$2,508	\$4,790	\$13,575	\$18,492	\$77,583
2001	\$24,747	\$18,618	\$14,741	\$11,712	\$5,285	\$1,999	\$890	\$1,714	\$2,473	\$7,218	\$11,787	\$20,641	\$121,825
2002	\$16,054	\$15,999	\$15,831	\$10,337	\$5,376	\$3,810	\$3,211	\$3,716	\$3,751	\$7,021	\$9,981	\$10,807	\$105,894
2003	\$9,477	\$10,711	\$8,903	\$6,861	\$3,695	\$1,929	\$1,068	\$672	\$1,250	\$4,662	\$17,502	\$13,418	\$80,148
2004	\$12,934	\$10,694	\$6,155	\$3,089	\$1,400	\$920	\$581	\$619	\$1,228	\$4,407	\$11,322	\$10,331	\$63,681
2005	\$14,266	\$10,470	\$7,036	\$5,007	\$2,108	\$1,167	\$787	\$695	\$2,291	\$8,332	\$13,792	\$14,784	\$80,735
2006	\$8,259	\$10,282	\$6,927	\$4,017	\$1,234	\$754	\$818	\$724	\$1,982	\$1,426	\$9,497	\$8,925	\$54,845
2007	\$8,956	\$5,990	\$1,936	\$1,623	\$496	\$361	\$330	\$505	\$686	\$2,086	\$2,806	\$3,100	\$28,874
2008	\$2,838	\$1,683	\$1,968	\$1,422	\$337	\$182	\$266	\$216	\$471	\$1,635	\$1,264	\$3,557	\$15,839
2009	\$2,553	\$1,933	\$1,659	\$1,659	\$1,889	\$697	(\$320)	\$79	\$80	\$580	\$1,959	\$2,193	\$14,960
2010	\$1,443	\$1,556	\$1,091	\$540	\$202	\$32	Campus shut down						\$4,865

GAS CONSUMPTION - GJ

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	869	1555	626	697	239	95	58	32	67	645	1177	2282	8342
1995	1336	1464	583	650	78	78	24	93	86	907	787	1983	8069
1996	1499	1520	681	663	282	299	76	37	156	905	1446	1499	9063
1997	1485	2494	1105	870	192	224	47	92	83	740	889	1846	10067
1998	2271	2013	1012	655	288	123	57	69	180	616	1314	1984	10582
1999	1582	1573	1276	827	540	254	122	84	343	864	1255	1670	10390
2000	1659	1328	1110	673	454	176	112	121	261	571	1422	1762	9648
2001	1354	1361	1138	828	332	208	83	77	197	638	1018	1692	8927
2002	1572	1442	1433	861	386	198	73	84	215	546	964	1066	8838
2003	1263	1402	1274	801	279	174	86	54	145	790	1860	1273	9401
2004	1200	987	569	248	88	41	8	12	68	370	1030	1129	5748
2005	1129	1315	957	674	434	145	68	22	27	173	678	1185	6806
2006	1285	1185	1403	866	450	115	32	29	22	155	586	1321	7447
2007	736	483	143	120	30	19	16	33	38	174	237	237	2264
2008	183	137	153	100	21	9	12	9	30	117	93	285	1149
2009	196	148	115	28	168	56	142	2	2	52	190	138	1238
2010	125	135	90	41	12	2	Campus shut down						405

Richmond Campus - electrical consumption

ELECTRIC COST - \$

Acct #: 1944-3200-032

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	\$16,833	\$19,611	\$18,449	\$20,809	\$19,459	\$17,325	\$18,920	\$17,899	\$21,498	\$20,707	\$19,712	\$17,568	\$228,790
1995	\$18,400	\$16,860	\$16,860	\$18,723	\$18,166	\$18,399	\$16,739	\$16,296	\$19,507	\$20,595	\$18,832	\$16,581	\$215,958
1996	\$15,199	\$17,025	\$16,964	\$16,080	\$19,241	\$16,504	\$17,739	\$16,292	\$19,257	\$17,938	\$16,858	\$16,195	\$205,292
1997	\$14,761	\$15,305	\$16,956	\$16,301	\$18,166	\$17,186	\$15,306	\$17,513	\$19,810	\$18,607	\$16,301	\$15,959	\$202,171
1998	\$14,978	\$15,969	\$14,769	\$15,429	\$15,641	\$13,329	\$16,867	\$16,641	\$16,292	\$16,310	\$15,756	\$15,756	\$187,737
1999	\$15,756	\$16,305	\$15,314	\$15,429	\$13,451	\$15,194	\$13,544	\$18,840	\$18,708	\$14,986	\$15,318	\$15,655	\$188,500
2000	\$16,531	\$15,203	\$15,203	\$16,642	\$14,446	\$17,739	\$17,739	\$17,190	\$19,160	\$18,385	\$16,531	\$14,539	\$199,308
2001	\$12,012	\$15,756	\$1,863	\$15,535	\$14,867	\$17,850	\$15,194	\$15,982	\$17,296	\$15,650	\$13,119	\$14,225	\$169,349
2002	\$5,589	\$14,778	\$12,008	\$12,906	\$11,140	\$11,680	\$11,121	\$6,414	\$7,507	\$7,608	\$7,597	\$6,467	\$114,815
2003	\$6,588	\$6,966	\$7,095	\$6,969	\$6,204	\$6,837	\$7,714	\$7,967	\$8,971	\$8,337	\$6,842	\$6,463	\$86,953
2004	\$6,457	\$6,340	\$6,837	\$7,118	\$6,528	\$7,481	\$9,079	\$7,458	\$7,209	\$7,980	\$6,177	\$6,479	\$85,142
2005	\$6,479	\$6,351	\$6,351	\$6,611	\$5,430	\$6,998	\$6,876	\$7,140	\$7,405	\$6,875	\$7,008	\$5,959	\$79,484
2006	\$11,202	\$11,922	\$12,920	\$11,188	\$11,201	\$11,729	\$12,737	\$12,172	\$13,406	\$14,481	\$13,297	\$26,093	\$162,347
2007	\$15,685	\$10,317	\$12,478	\$15,818	\$13,728	\$13,961	\$14,778	\$13,810	\$15,711	\$14,596	\$14,140	\$12,235	\$167,257
2008	\$12,203	\$12,608	\$14,774	\$12,629	\$12,629	\$12,453	\$14,628	\$13,018	\$14,692	\$14,580	\$14,140	\$12,235	\$160,590
2009	\$13,054	\$13,198	\$13,397	\$12,716	\$15,786	\$15,105	\$15,636	\$16,112	\$14,452	\$14,888	\$13,034	\$14,102	\$171,481
2010	\$12,884	\$13,927	\$14,619	\$15,042	\$16,028	\$16,998	\$17,310	\$16,819	\$16,821	\$14,445	\$13,599	\$14,040	\$182,531
2011													

ELECTRIC CONSUMPTION - kWh

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	342000	421200	378000	433600	405800	360000	403200	378000	450000	432000	421200	374400	4799400
1995	410400	367200	367200	406800	381600	388800	349200	334800	457200	432000	403200	363600	4662000
1996	313200	367200	363600	342000	374400	327600	396000	334800	403200	367200	374400	352800	4316400
1997	313200	316800	356400	349200	369000	378000	316800	381600	414000	398000	349200	338400	4280600
1998	313200	338400	327600	342000	334800	316800	388800	374400	334800	363600	345600	345600	4125600
1999	345600	356400	331200	342000	298800	313200	273600	363600	385200	327600	338400	356400	4032000
2000	309600	321853	333347	381600	331200	306000	396000	385200	414000	388800	370800	306000	4244400
2001	370800	345600	381600	338400	309600	399600	313200	360000	381600	349200	288000	324000	4161600
2002	25200	34200	244800	295200	244800	241200	212400	140400	154800	144000	147600	129600	2014200
2003	126000	133200	140400	136800	108000	126000	136800	144000	158400	140400	133200	122400	1605600
2004	115200	126000	126000	129600	104400	129600	154800	126000	122400	129600	118800	108000	1490400
2005	108000	111600	111600	111600	93600	108000	118800	126000	133200	118800	122400	108000	1371600
2006	180000	212400	226800	205200	180000	194400	212400	194400	226800	219600	187200	374400	2613600
2007	223200	183600	266400	291600	234000	226800	252000	234000	262800	259200	255600	208800	2898000
2008	212400	223200	262800	219600	208800	187200	230400	198000	230400	241200	255600	208800	2678400
2009	219600	226800	208800	205200	234000	226800	226800	230400	212400	248400	205200	219600	2664000
2010	198000	223200	212400	212400	201600	230400	237600	219600	223200	212400	198000	212400	2581200
2011													

Richmond Campus - gas consumption

GAS COST - \$

Acct #: 1179620

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	\$5,657	\$7,046	\$5,113	\$3,458	\$2,718	\$2,334	\$2,079	\$1,786	\$2,290	\$3,357	\$6,531	\$7,253	\$49,622
1995	\$8,405	\$6,929	\$6,237	\$4,219	\$2,924	\$1,924	\$1,211	\$1,475	\$1,875	\$4,027	\$6,978	\$8,035	\$54,239
1996	\$5,765	\$6,508	\$4,863	\$3,702	\$3,426	\$2,107	\$2,151	\$1,943	\$2,556	\$3,530	\$6,982	\$10,133	\$53,666
1997	\$7,903	\$6,549	\$7,582	\$4,558	\$3,128	\$2,357	\$2,218	\$1,996	\$2,293	\$4,105	\$2,839	\$7,348	\$52,876
1998	\$5,781	\$5,834	\$5,517	\$3,730	\$3,395	\$2,577	\$2,475	\$2,292	\$2,390	\$3,704	\$4,207	\$9,975	\$51,877
1999	\$8,828	\$7,283	\$6,115	\$4,778	\$4,168	\$1,895	\$1,812	\$1,903	\$2,116	\$5,136	\$5,727	\$7,586	\$57,347
2000	\$7,892	\$7,499	\$7,592	\$4,989	\$4,619	\$3,431	\$2,106	\$1,920	\$2,829	\$5,471	\$12,080	\$18,338	\$78,766
2001	\$33,756	\$19,832	\$14,530	\$13,795	\$9,602	\$6,800	\$7,323	\$4,758	\$8,244	\$14,237	\$14,977	\$16,451	\$164,305
2002	\$18,982	\$17,452	\$19,129	\$11,475	\$8,680	\$4,989	\$3,326	\$2,878	\$5,052	\$10,110	\$14,637	\$17,156	\$133,866
2003	\$19,013	\$18,238	\$19,702	\$11,280	\$9,636	\$5,073	\$3,316	\$2,820	\$5,031	\$10,034	\$11,235	\$14,903	\$130,284
2004	\$19,038	\$14,912	\$12,548	\$7,522	\$1,664	\$1,108	\$829	\$871	\$4,212	\$8,955	\$14,115	\$15,362	\$101,134
2005	\$18,612	\$15,216	\$12,289	\$8,894	\$2,416	\$1,886	\$728	\$546	\$3,334	\$7,459	\$15,156	\$16,864	\$103,400
2006	\$16,434	\$15,477	\$14,320	\$9,790	\$7,143	\$3,685	\$1,031	\$925	\$4,347	\$8,889	\$21,470	\$23,862	\$127,376
2007	\$26,864	\$20,804	\$23,186	\$13,974	\$6,358	\$1,692	\$1,966	\$1,350	\$5,177	\$12,702	\$19,677	\$22,966	\$156,715
2008	\$25,676	\$19,989	\$19,392	\$16,151	\$6,866	\$2,618	\$1,394	\$1,038	\$3,615	\$11,304	\$13,590	\$19,730	\$141,363
2009	\$19,864	\$15,315	\$15,530	\$10,347	\$5,700	\$3,610	\$2,825	\$1,145	\$2,238	\$10,363	\$11,687	\$16,916	\$115,540
2010	\$13,114	\$11,695	\$12,430	\$9,711	\$5,156	\$2,972	\$920	\$945	\$2,837	\$8,662	\$11,759	\$12,904	\$93,105
2011													

GAS CONSUMPTION - GJ

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	1139	1406	1019	814	856	563	501	430	553	812	1362	1482	10937
1995	1733	1430	1287	1036	737	484	303	421	472	1017	1283	1663	11866
1996	1325	1450	1117	1041	1010	620	633	571	753	1041	1649	2329	13539
1997	1702	1407	1632	1156	838	626	588	527	609	1103	607	1639	12434
1998	1241	1252	1182	885	801	597	526	571	550	879	1233	1958	11675
1999	1749	1533	1444	1077	813	390	340	272	418	923	1142	1427	11528
2000	1666	1412	1271	929	821	537	364	333	496	931	1471	1753	11984
2001	1572	1614	1474	1092	790	693	88	338	690	1086	1271	1687	12395
2002	1733	1626	1649	967	580	168	139	123	334	870	1057	1428	10675
2003	1331	1337	1246	898	463	66	50	49	241	716	1640	1471	9507
2004	1856	1447	1213	701	146	89	55	51	373	855	1384	1551	9721
2005	1840	1499	1219	888	228	175	58	59	380	849	1473	1714	10382
2006	1474	1529	1403	947	645	280	59	64	373	859	1629	1800	11061
2007	2094	1559	1821	1196	562	133	161	108	472	1137	1610	1915	12767
2008	2137	1625	1574	1263	533	182	70	64	270	884	1002	1528	11131
2009	1556	1217	1312	824	497	263	218	61	121	813	1109	1599	9590
2010	1177	1064	1129	873	489	272	68	66	218	730	1293	1364	8743
2011													

Surrey Campus - electrical consumption

ELECTRIC COST - \$

Acct #: 2073 1199 121

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	\$10,569	\$10,238	\$10,586	\$9,350	\$8,546	\$9,304	\$9,784	\$10,536	\$12,143	\$10,516	\$10,503	\$10,503	\$122,578
1995	\$10,834	\$10,106	\$10,650	\$9,271	\$9,271	\$8,645	\$8,962	\$11,570	\$11,864	\$11,299	\$11,299	\$10,962	\$124,733
1996	\$10,005	\$10,719	\$10,687	\$9,469	\$9,683	\$9,242	\$9,759	\$10,841	\$10,744	\$11,193	\$10,201	\$8,981	\$121,524
1997	\$9,809	\$10,419	\$10,408	\$10,299	\$9,099	\$9,887	\$10,137	\$12,395	\$12,395	\$11,746	\$11,746	\$9,990	\$128,330
1998	\$11,389	\$10,632	\$14,083	\$11,445	\$10,802	\$10,802	\$9,814	\$12,191	\$11,524	\$11,908	\$10,562	\$10,762	\$135,914
1999	\$10,384	\$10,821	\$10,736	\$11,289	\$12,250	\$11,524	\$12,924	\$16,205	\$15,926	\$15,777	\$14,552	\$13,770	\$156,158
2000	\$13,261	\$13,260	\$13,770	\$14,824	\$13,706	\$13,002	\$14,265	\$14,317	\$15,889	\$16,325	\$14,656	\$12,647	\$169,922
2001	\$14,049	\$13,595	\$14,876	\$13,317	\$14,598	\$13,697	\$14,477	\$13,753	\$15,810	\$15,818	\$13,989	\$13,878	\$171,857
2002	\$13,286	\$13,489	\$13,092	\$14,206	\$11,975	\$15,136	\$15,537	\$14,641	\$15,751	\$14,198	\$13,701	\$13,373	\$168,385
2003	\$13,269	\$15,253	\$15,188	\$14,674	\$13,517	\$16,820	\$16,633	\$17,400	\$16,514	\$17,083	\$17,595	\$15,060	\$189,005
2004	\$14,803	\$13,581	\$17,305	\$15,646	\$13,824	\$18,411	\$20,480	\$21,168	\$20,033	\$19,255	\$17,270	\$17,328	\$209,103
2005	\$11,718	\$16,259	\$15,449	\$12,910	\$15,584	\$5,549	\$14,659	\$19,909	\$16,396	\$16,982	\$17,941	\$13,849	\$177,203
2006	\$14,202	\$13,848	\$16,152	\$14,336	\$16,648	\$18,579	\$19,094	\$20,868	\$18,269	\$20,794	\$20,123	\$18,462	\$211,375
2007	\$17,285	\$18,508	\$19,517	\$16,804	\$18,068	\$20,323	\$22,167	\$20,663	\$21,716	\$22,181	\$22,538	\$19,581	\$239,352
2008	\$20,957	\$19,888	\$19,002	\$21,912	\$18,862	\$20,702	\$24,817	\$20,667	\$22,670	\$23,607	\$22,810	\$22,023	\$257,917
2009	\$24,032	\$22,593	\$21,977	\$22,177	\$14,254	\$23,702	\$23,389	\$27,290	\$24,947	\$28,311	\$25,799	\$24,970	\$283,439
2010	\$24,045	\$23,610	\$24,571	\$24,706	\$27,648	\$25,670	\$25,661	\$28,189	\$27,411	\$25,018	\$28,463	\$28,135	\$313,126
2011													

ELECTRIC CONSUMPTION - kWh

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	217800	217800	226800	187200	169200	192600	183600	203400	239400	223200	216000	216000	2493000
1995	220500	219600	223200	186300	186300	198000	176400	228600	239400	238500	238500	225000	2580300
1996	210600	228600	225000	201600	198000	180000	196200	214200	205200	250200	217800	183600	2511000
1997	207000	225000	226800	208800	178200	205200	214200	253900	253900	216000	216000	214200	2619200
1998	214200	189000	253800	203400	204300	204300	196200	261000	230400	248400	228600	244800	2678400
1999	226800	241200	223200	246600	246600	230400	230400	320400	315000	342000	320400	302400	3245400
2000	279000	279000	302400	315000	286200	270000	300600	295200	304200	338400	309600	266400	3546000
2001	307800	286200	309600	280800	304200	271800	286200	273600	304200	318600	298800	298800	3540600
2002	304200	293400	273600	295200	248400	282600	309600	284400	298800	280800	279000	282600	3432600
2003	246600	288000	286200	271800	239400	275400	277200	291600	288000	288000	300600	282600	3335400
2004	275400	241200	338400	329400	226800	277200	327600	342000	270000	320400	306000	311400	3565800
2005	259200	289800	261000	313200	264600	226800	273600	324000	289800	284400	334800	273600	3394800
2006	284400	273600	318600	273600	279000	306000	304200	329400	340200	320400	345600	316800	3691800
2007	297000	336600	349200	370800	307800	334800	356400	336600	345600	363600	390600	342000	4131000
2008	370800	354600	338400	394200	318600	336600	405000	304200	346734	342000	343800	370800	4225734
2009	426600	380600	379800	358200	363600	369000	343800	394200	338400	426600	430200	415800	4626800
2010	392400	385200	392400	342000	374400	360000	363600	401400	387000	363600	424800	431263	4618063
2011													

Surrey Campus - gas consumption

GAS COST - \$

Acct #: 1179620

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	\$8,801	\$8,320	\$6,521	\$2,651	\$1,259	\$1,259	\$676	\$569	\$2,144	\$6,274	\$8,852	\$8,852	\$56,178
1995	\$8,488	\$6,966	\$4,948	\$1,187	\$1,187	\$1,183	\$469	\$643	\$2,957	\$6,812	\$6,812	\$8,201	\$49,853
1996	\$7,114	\$6,074	\$4,658	\$3,394	\$1,895	\$744	\$611	\$1,344	\$2,552	\$6,502	\$8,687	\$8,599	\$52,174
1997	\$7,933	\$8,008	\$6,656	\$3,602	\$2,257	\$2,571	\$1,355	\$2,840	\$2,840	\$3,610	\$3,610	\$4,518	\$49,800
1998	\$9,361	\$7,107	\$7,174	\$4,627	\$3,641	\$2,426	\$1,451	\$1,608	\$2,527	\$5,345	\$8,369	\$14,756	\$68,392
1999	\$14,480	\$12,053	\$9,959	\$6,265	\$5,104	\$2,647	\$1,062	\$3,799	\$3,709	\$4,805	\$3,167	\$4,244	\$71,294
2000	\$14,520	\$11,094	\$11,180	\$7,271	\$6,635	\$3,605	\$2,304	\$2,221	\$4,003	\$6,997	\$2,865	\$19,659	\$92,354
2001	\$38,842	\$20,811	\$15,750	\$15,490	\$11,650	\$7,704	\$9,297	\$6,856	\$9,216	\$17,757	\$20,517	\$22,333	\$196,224
2002	\$21,087	\$19,799	\$22,790	\$14,840	\$11,639	\$6,995	\$5,036	\$4,571	\$6,729	\$11,633	\$16,561	\$18,773	\$160,452
2003	\$21,348	\$20,405	\$22,177	\$13,096	\$12,059	\$7,510	\$5,446	\$4,868	\$7,107	\$12,071	\$10,401	\$17,096	\$153,582
2004	\$19,918	\$15,142	\$13,490	\$7,995	\$6,441	\$3,878	\$2,369	\$2,609	\$5,776	\$9,902	\$14,711	\$15,057	\$117,287
2005	\$17,272	\$13,792	\$11,888	\$8,942	\$4,082	\$4,219	\$2,977	\$2,225	\$4,547	\$8,465	\$15,533	\$16,496	\$110,438
2006	\$14,709	\$15,000	\$13,615	\$10,513	\$6,525	\$2,939	\$2,784	\$2,809	\$5,407	\$11,601	\$24,227	\$24,712	\$134,842
2007	\$28,402	\$22,588	\$21,275	\$14,810	\$8,991	\$6,319	\$2,544	\$2,638	\$7,189	\$13,845	\$21,967	\$25,704	\$176,272
2008	\$31,441	\$23,310	\$24,612	\$18,655	\$10,927	\$9,272	\$3,434	\$3,211	\$10,431	\$15,470	\$20,039	\$36,444	\$207,246
2009	\$34,682	\$27,424	\$27,513	\$15,491	\$9,934	\$4,181	\$3,829	\$3,941	\$6,133	\$15,643	\$16,729	\$28,084	\$193,582
2010	\$21,637	\$18,280	\$16,991	\$12,982	\$8,761	\$7,497	\$4,793	\$3,867	\$7,223	\$12,547	\$18,133	\$18,405	\$151,117
2011													

GAS CONSUMPTION - GJ

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1994	1757	1661	1427	640	302	302	158	135	517	1369	1809	1809	11886
1995	1748	1438	1128	299	299	293	115	159	745	1459	1459	1807	10949
1996	1636	1396	1193	1001	557	216	177	394	751	1664	1999	1919	12903
1997	1708	1724	1567	969	599	685	351	758	758	719	719	1851	12408
1998	2045	1539	1554	1109	863	559	316	355	585	1288	2270	3357	15840
1999	2892	2563	2218	1426	918	600	528	390	832	1447	1788	2395	17997
2000	2544	2109	1944	1369	1218	643	397	425	693	1218	1780	2107	16447
2001	1868	1772	1656	1287	822	573	408	395	578	1361	1693	2227	14640
2002	2323	1914	2248	1447	994	506	325	356	576	1048	1268	1498	14503
2003	1662	1598	1503	1123	703	231	107	87	395	1047	1772	1811	12038
2004	2164	1595	1404	728	577	263	74	84	456	967	1565	1610	11486
2005	1842	1424	1211	868	274	294	149	84	405	955	1606	1811	10922
2006	1618	1602	1422	1043	528	110	85	112	390	1174	1982	2009	12072
2007	2409	1806	1784	1329	795	485	91	105	618	1301	1940	2343	15006
2008	2835	2010	2130	1505	756	619	123	102	578	1224	1529	3078	16487
2009	2926	2313	2491	1216	793	153	133	110	244	1212	1632	2896	16119
2010	2035	1705	1559	1114	716	565	228	103	425	987	2133	2056	13626
2011													

Campus Sizes in M2 - 1994 to 2009

	Cloverdale	Newton	Lang - M	Lang - H	Richmond	Surrey	Total	Comments
1994		14,327	17,029	3,107	20,129	17,447	72,039	
1995		14,327	17,029	3,107	20,554	17,447	72,464	R - Lecture Theater added (425)
1996		14,327	17,029	3,107	20,554	17,447	72,464	
1997		14,327	17,029	3,107	20,554	17,447	72,464	
1998		14,327	17,029	3,107	20,554	17,447	72,464	
1999		14,327	17,029	3,107	20,554	26,185	81,202	S - Bldg G added (8738)
2000		14,327	17,029	3,107	20,554	26,185	81,202	
2001		14,327	17,029	3,107	20,554	26,185	81,202	
2002		14,327	17,029	3,107	20,554	26,185	81,202	
2003		14,327	17,029	3,107	20,554	26,185	81,202	
2004		14,327	17,029	3,107	20,554	26,185	81,202	
2005		14,327	17,029	3,107	20,554	26,185	81,202	
2006		14,327	17,029	3,107	20,554	27,415	82,432	S - Bldg D extension added (1230)
2007	18,559	4,015	16,654	3,107	20,554	27,415	90,304	N - Closed except Bldg 3/Unit 7(3715)(300)/Farrier barn closed (375)
2008	18,559	4,015	16,654	3,107	20,554	32,635	95,524	S - Bldg A added (5220)
2009	18,559	4,015	17,143	3,107	20,554	36,935	100,313	S - Bldg C added (4300)/L - ISH added (489)
2010	18,559	4,015	17,143	3,107	20,554	36,935	100,313	L - New greenhouse lab under construction - west wing under construction and temp trailers on site
2011								

Conversion Factors

Natural Gas	277.8	ekWh	=	1	GJ
Electricity	1	kwh	=	0.03832	GJ
GHG	1	kwh	=	0.000024	tonnes
GHG	1	GJ	=	0.04973	tonnes

Notes

- 1 - Data collected from utility bills and is not adjusted for factors such as weather
- 2 - Data from year 2000 to 2010 has been quality checked for accuracy
- 3 - Costs include taxes
- 4 - Building areas not audited to confirm size

For further information contact Dan Brown - Manager Physical Plant @Dan.Brown@kwantlen.ca