

RETROFIT SAVINGS DETERMINATION FOR WICHITA FALLS INDEPENDENT SCHOOL DISTRICT

Prepared by

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Juan Carlos Baltazar
and David E. Claridge**



ENERGY SYSTEMS LABORATORY

Texas A&M University
College Station, TX

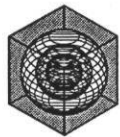
October 2001

ACKNOWLEDGEMENT

THIS PROJECT WAS FUNDED BY THE U.S.
DEPARTMENT OF ENERGY THROUGH THE
REBUILD AMERICA PROGRAM

Summary of Savings

WICHITA FALLS INDEPENDENT SCHOOL DISTRICT



ENERGY SYSTEMS LABORATORY

Texas Engineering Experiment Station
Texas A&M University System

WICHITA FALLS ISD

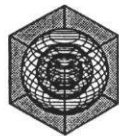
Summary from August-2000 to July-2001

BUILDING NAME	Measured kWh	Predicted kWh	Measured Savings kWh	Savings %	Measured Savings USD	Expected Savings kWh	Expected Savings USD	Meas/Est %
Barwise Jr High School	657,876	938,853	280,977	29.9%	\$22,450	308,290	\$24,632	91.1%
Ben Milam Elementary	479,190	469,650	-9,540	-2.0%	(\$762)	16,548	\$1,322	-
Bonham Elementary	276,924	284,535	7,611	2.7%	\$608	26,603	\$2,126	28.6%
Brook Elementary	191,088	252,294	61,206	24.3%	\$4,890	20,625	\$1,648	296.8%
Burgess Elementary School	488,628	389,731	-98,897	-25.4%	(\$7,902)	57,090	\$4,561	-
Carrigan Center	480,148	610,304	130,156	21.3%	\$10,399	149,073	\$11,911	87.3%
Denver Center	67,878	97,486	29,608	30.4%	\$2,366	14,348	\$1,146	206.4%
Fannin Elementary	302,220	331,551	29,331	8.8%	\$2,344	34,374	\$2,746	85.3%
Harrell Center	283,020	344,087	61,067	17.7%	\$4,879	28,167	\$2,251	216.8%
Haynes Elementary	382,680	366,312	-16,368	-4.5%	(\$1,308)	39,489	\$3,155	-
Holland Center	87,414	83,760	-3,654	-4.4%	(\$292)	2,690	\$215	-
Houston Elementary	297,270	301,086	3,816	1.3%	\$305	22,919	\$1,831	16.7%
Jefferson Elementary	398,340	432,547	34,207	7.9%	\$2,733	19,362	\$1,547	176.7%
Kirby Jr High School	1,092,790	1,539,016	446,226	29.0%	\$35,653	176,716	\$14,120	252.5%
Lamar Elementary	275,232	266,903	-8,329	-3.1%	(\$665)	47,226	\$3,773	-
McGaha Elementary	277,872	247,090	-30,782	-12.5%	(\$2,459)	26,233	\$2,096	-
Mc Neil Jr High School	874,538	1,382,085	507,547	36.7%	\$40,553	629,902	\$50,329	80.6%
Sheppard Elementary	273,546	309,363	35,817	11.6%	\$2,862	37,363	\$2,985	95.9%
Wichita Falls High School	1,716,972	1,912,008	195,036	10.2%	\$15,583	101,067	\$8,075	193.0%
Zundelowitz Jr High School	753,720	628,790	-124,930	-19.9%	(\$9,982)	34,168	\$2,730	-
	9,657,346	11,187,451	1,530,105	13.68%	\$122,255	1,792,253	\$143,201	85.4%
Schools with Negative Savings	2,744,736	2,452,236	-292,500	-11.9%	(\$23,371)	223,444	\$17,853	-
Schools with Positive savings	6,912,610	8,735,215	1,822,605	20.9%	\$145,626	1,568,809	\$125,348	116.2%
	9,657,346	11,187,451	1,530,105		\$122,255	1,792,253	\$143,201	

Savings Reports

Electricity

WICHITA FALLS INDEPENDENT SCHOOL DISTRICT



ENERGY SYSTEMS LABORATORY
Texas Engineering Experiment Station
Texas A&M University System

Barwise Jr High School
Wichita Falls ISD

Site Contact

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ESL Metering Contact

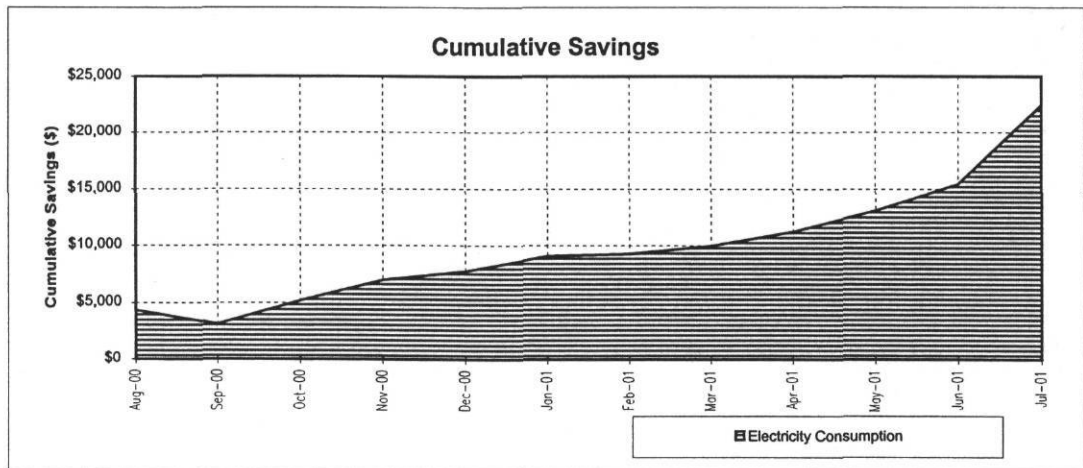
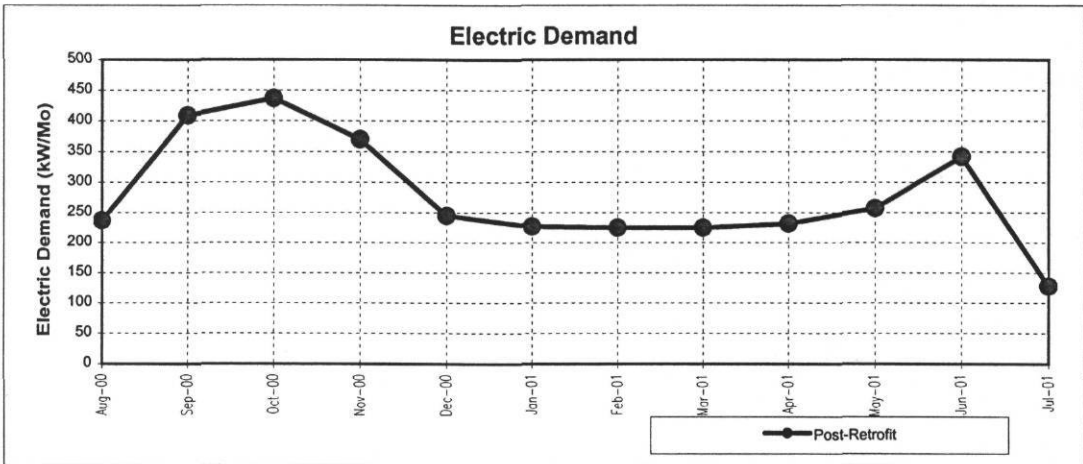
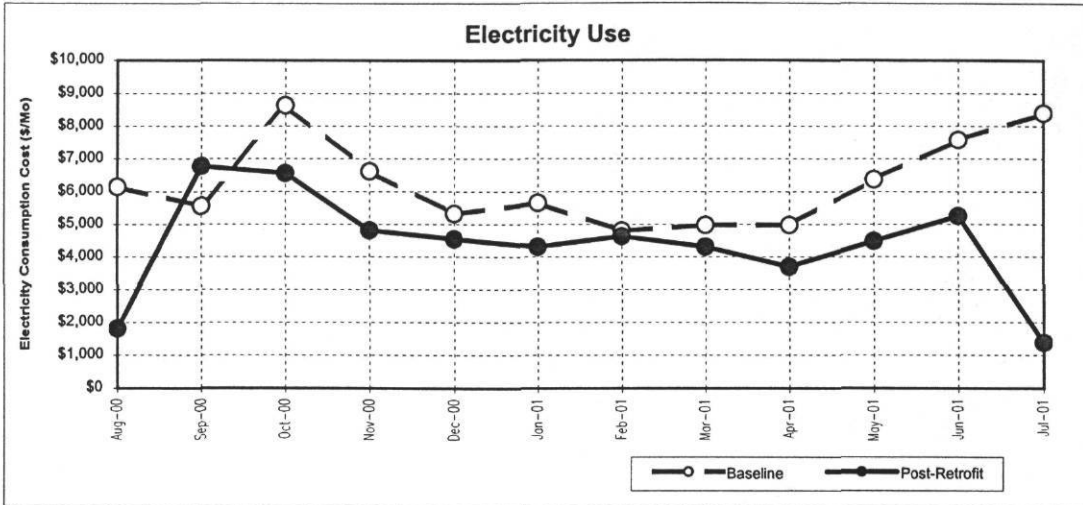
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Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	22,668	\$1,811	\$4,328	237	\$0	\$0	\$4,328	\$4,328
Sep-00	84,780	\$6,774	(\$1,211)	409	\$0	\$0	(\$1,211)	\$3,117
Oct-00	82,080	\$6,558	\$2,082	437	\$0	\$0	\$2,082	\$5,199
Nov-00	60,144	\$4,806	\$1,813	370	\$0	\$0	\$1,813	\$7,012
Dec-00	56,928	\$4,549	\$766	245	\$0	\$0	\$766	\$7,778
Jan-01	53,880	\$4,305	\$1,352	227	\$0	\$0	\$1,352	\$9,131
Feb-01	57,924	\$4,628	\$172	225	\$0	\$0	\$172	\$9,303
Mar-01	53,892	\$4,306	\$666	225	\$0	\$0	\$666	\$9,968
Apr-01	46,356	\$3,704	\$1,268	232	\$0	\$0	\$1,268	\$11,236
May-01	56,184	\$4,489	\$1,879	257	\$0	\$0	\$1,879	\$13,115
Jun-01	65,712	\$5,250	\$2,322	342	\$0	\$0	\$2,322	\$15,438
Jul-01	17,328	\$1,385	\$7,012	128	\$0	\$0	\$7,012	\$22,450
TOTAL	657,876	\$52,564	\$22,450	3,334	\$0	\$0	\$22,450	
Audit Estimated Savings			\$24,632			\$0	\$24,632	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Ben Milam Elementary
Wichita Falls ISD

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ESL Metering Contact

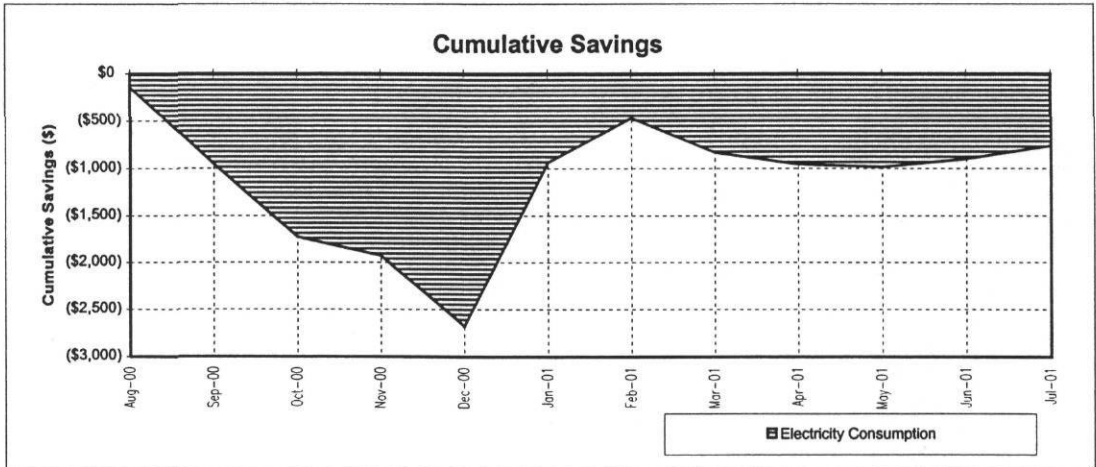
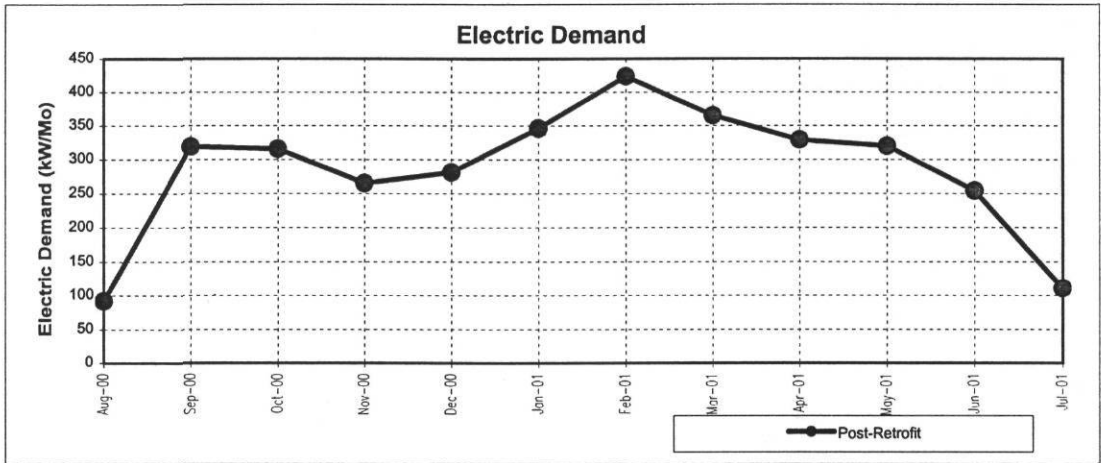
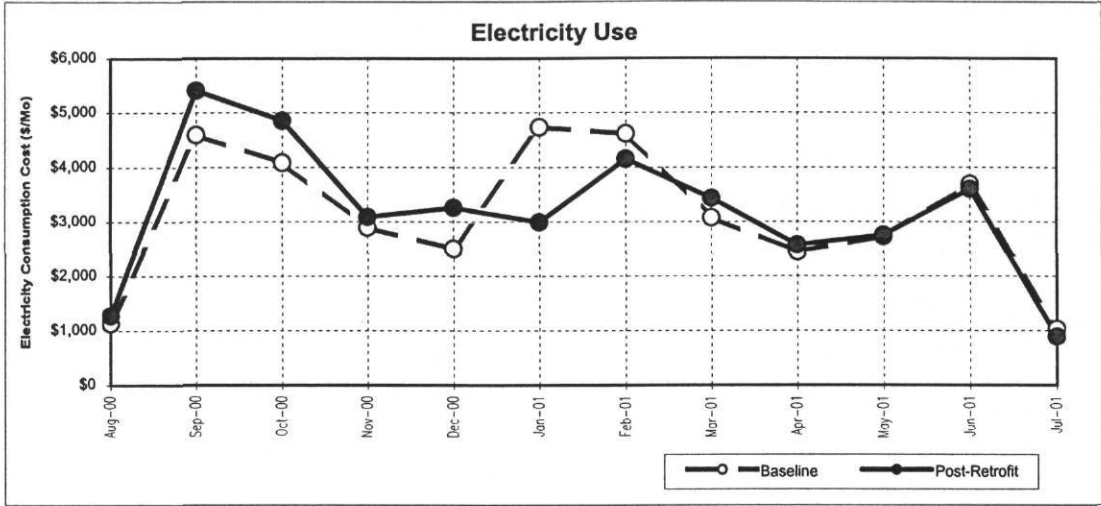
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Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	16,020	\$1,280	(\$143)	92	\$0	\$0	(\$143)	(\$143)
Sep-00	67,650	\$5,405	(\$812)	319	\$0	\$0	(\$812)	(\$955)
Oct-00	60,750	\$4,854	(\$774)	316	\$0	\$0	(\$774)	(\$1,730)
Nov-00	38,640	\$3,087	(\$197)	265	\$0	\$0	(\$197)	(\$1,926)
Dec-00	40,770	\$3,258	(\$754)	281	\$0	\$0	(\$754)	(\$2,680)
Jan-01	37,440	\$2,991	\$1,742	346	\$0	\$0	\$1,742	(\$938)
Feb-01	51,930	\$4,149	\$466	424	\$0	\$0	\$466	(\$472)
Mar-01	42,990	\$3,435	(\$359)	365	\$0	\$0	(\$359)	(\$831)
Apr-01	32,220	\$2,574	(\$126)	329	\$0	\$0	(\$126)	(\$957)
May-01	34,500	\$2,757	(\$28)	320	\$0	\$0	(\$28)	(\$985)
Jun-01	45,090	\$3,603	\$87	254	\$0	\$0	\$87	(\$899)
Jul-01	11,190	\$894	\$136	111	\$0	\$0	\$136	(\$762)
TOTAL	479,190	\$38,287	-\$762	3,422	\$0	\$0	-\$762	
Audit Estimated Savings			\$1,322			\$0	\$1,322	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Bonham Elementary
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ESL Metering Contact

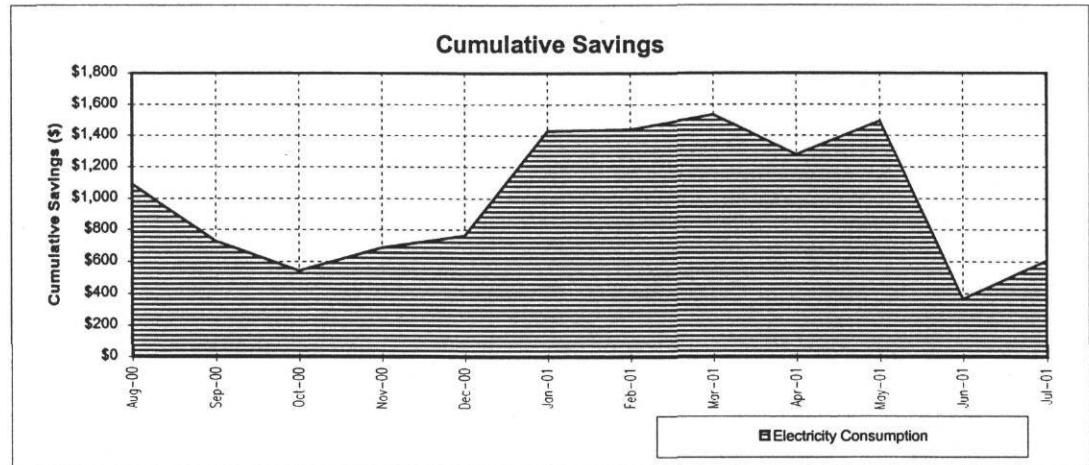
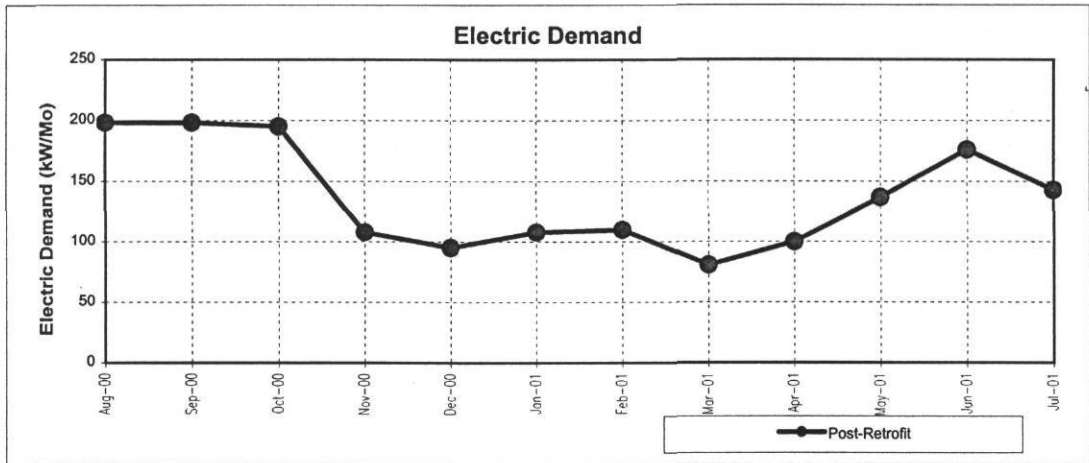
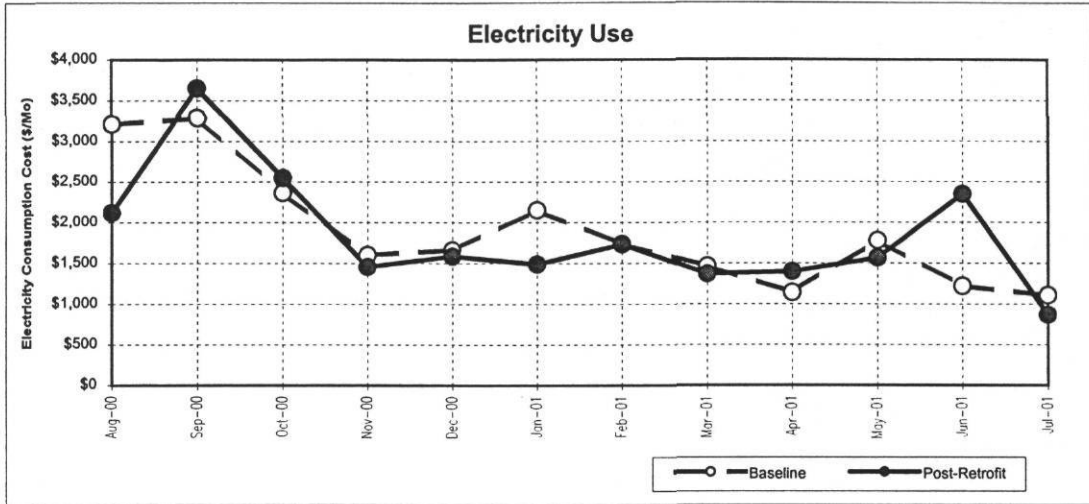
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Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	26,556	\$2,122	\$1,091	198	\$0	\$0	\$1,091	\$1,091
Sep-00	45,696	\$3,651	(\$363)	198	\$0	\$0	(\$363)	\$727
Oct-00	31,908	\$2,549	(\$185)	195	\$0	\$0	(\$185)	\$542
Nov-00	18,216	\$1,455	\$145	108	\$0	\$0	\$145	\$687
Dec-00	19,824	\$1,584	\$78	95	\$0	\$0	\$78	\$765
Jan-01	18,624	\$1,488	\$665	108	\$0	\$0	\$665	\$1,430
Feb-01	21,660	\$1,731	\$9	110	\$0	\$0	\$9	\$1,438
Mar-01	17,136	\$1,369	\$95	81	\$0	\$0	\$95	\$1,534
Apr-01	17,472	\$1,396	(\$254)	100	\$0	\$0	(\$254)	\$1,279
May-01	19,572	\$1,564	\$215	137	\$0	\$0	\$215	\$1,494
Jun-01	29,376	\$2,347	(\$1,126)	176	\$0	\$0	(\$1,126)	\$368
Jul-01	10,884	\$870	\$240	143	\$0	\$0	\$240	\$608
TOTAL	276,924	\$22,126	\$608	1,649	\$0	\$0	\$608	
Audit Estimated Savings			\$2,126			\$0	\$2,126	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Brook Elementary
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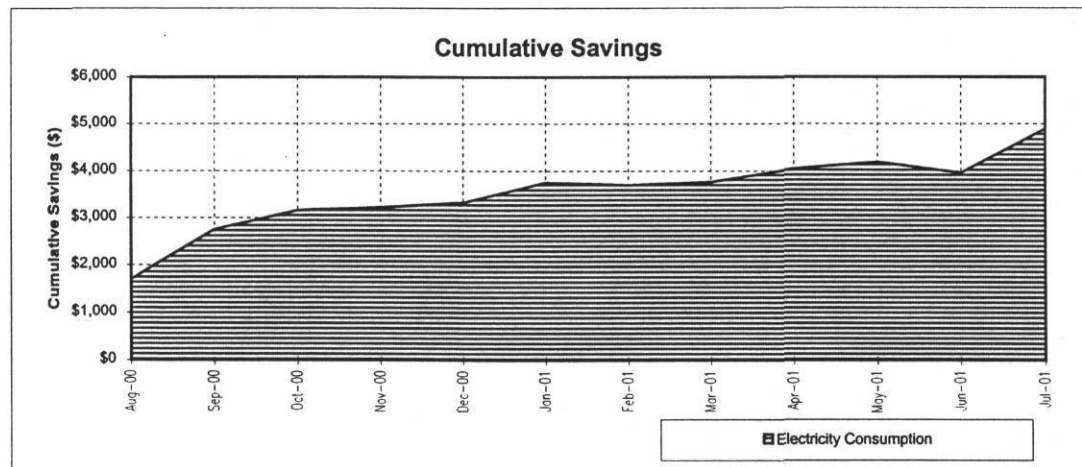
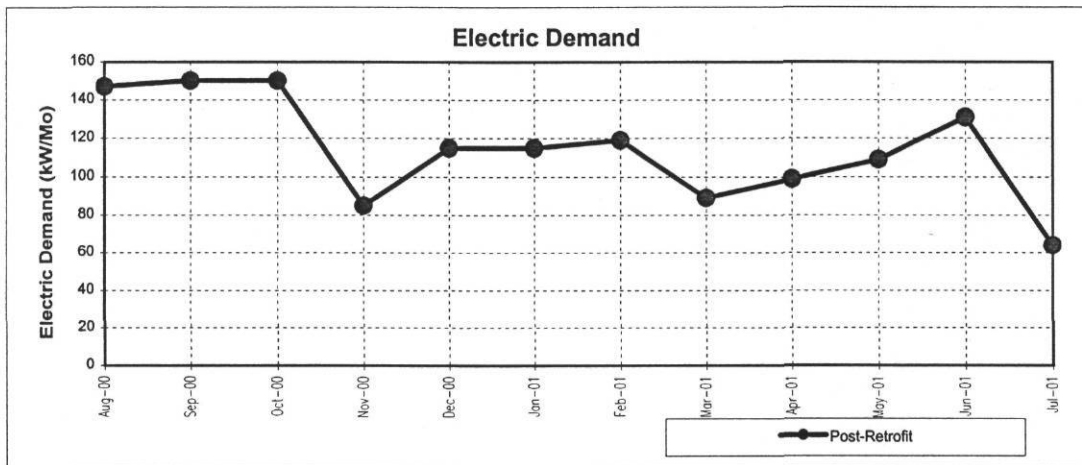
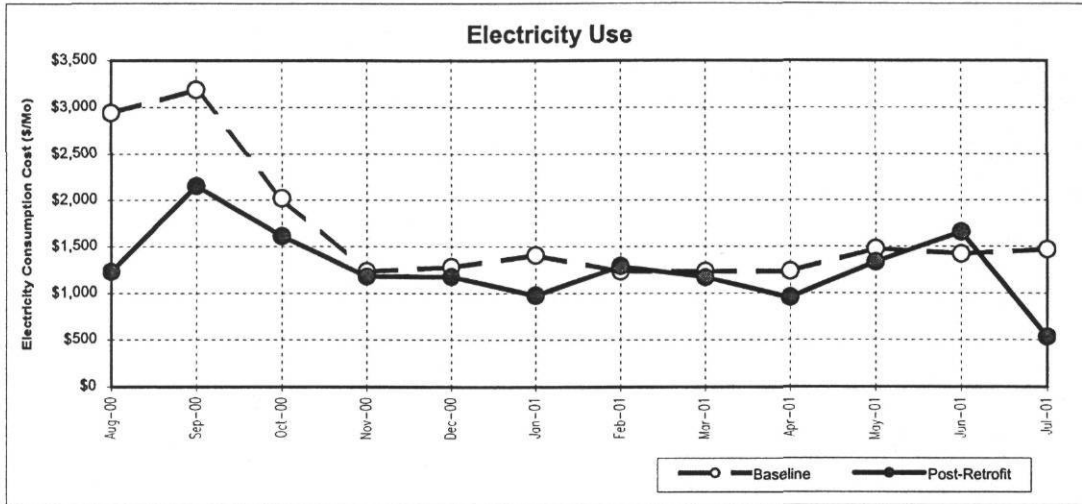
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Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	15,408	\$1,231	\$1,712	147	\$0	\$0	\$1,712	\$1,712
Sep-00	26,940	\$2,153	\$1,038	150	\$0	\$0	\$1,038	\$2,750
Oct-00	20,172	\$1,612	\$408	150	\$0	\$0	\$408	\$3,159
Nov-00	14,760	\$1,179	\$58	85	\$0	\$0	\$58	\$3,216
Dec-00	14,748	\$1,178	\$101	115	\$0	\$0	\$101	\$3,318
Jan-01	12,216	\$976	\$432	115	\$0	\$0	\$432	\$3,749
Feb-01	16,140	\$1,290	(\$52)	119	\$0	\$0	(\$52)	\$3,697
Mar-01	14,628	\$1,169	\$68	89	\$0	\$0	\$68	\$3,765
Apr-01	11,976	\$957	\$280	99	\$0	\$0	\$280	\$4,046
May-01	16,692	\$1,334	\$144	109	\$0	\$0	\$144	\$4,190
Jun-01	20,712	\$1,655	(\$233)	131	\$0	\$0	(\$233)	\$3,957
Jul-01	6,696	\$535	\$933	64	\$0	\$0	\$933	\$4,890
TOTAL	191,088	\$15,268	\$4,890	1,373	\$0	\$0	\$4,890	
Audit Estimated Savings			\$1,648			\$0	\$1,648	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Burgess Elementary School
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Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	61,812	\$4,939	(\$518)	327	\$0	\$0	(\$518)	(\$518)
Sep-00	74,880	\$5,983	(\$1,352)	335	\$0	\$0	(\$1,352)	(\$1,870)
Oct-00	35,604	\$2,845	\$56	294	\$0	\$0	\$56	(\$1,813)
Nov-00	36,648	\$2,928	(\$598)	182	\$0	\$0	(\$598)	(\$2,411)
Dec-00	29,340	\$2,344	(\$319)	135	\$0	\$0	(\$319)	(\$2,730)
Jan-01	26,388	\$2,108	\$119	138	\$0	\$0	\$119	(\$2,611)
Feb-01	32,904	\$2,629	(\$671)	141	\$0	\$0	(\$671)	(\$3,282)
Mar-01	30,204	\$2,413	(\$456)	138	\$0	\$0	(\$456)	(\$3,738)
Apr-01	28,692	\$2,292	(\$335)	184	\$0	\$0	(\$335)	(\$4,072)
May-01	41,868	\$3,345	(\$401)	232	\$0	\$0	(\$401)	(\$4,473)
Jun-01	52,560	\$4,200	(\$2,337)	278	\$0	\$0	(\$2,337)	(\$6,810)
Jul-01	37,728	\$3,014	(\$1,092)	217	\$0	\$0	(\$1,092)	(\$7,902)
TOTAL	488,628	\$39,041	-\$7,902	2,601	\$0	\$0	-\$7,902	
Audit Estimated Savings			\$4,561			\$0	\$4,561	

Comments:

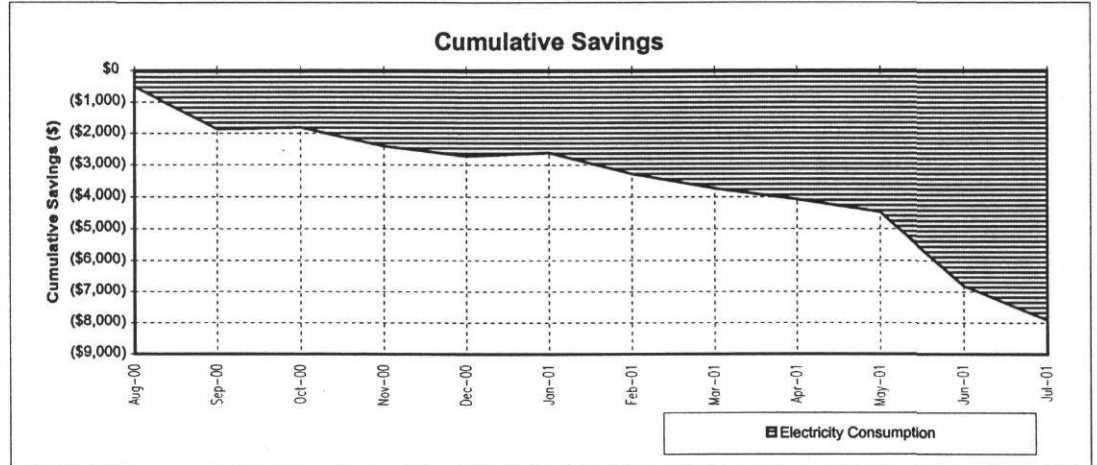
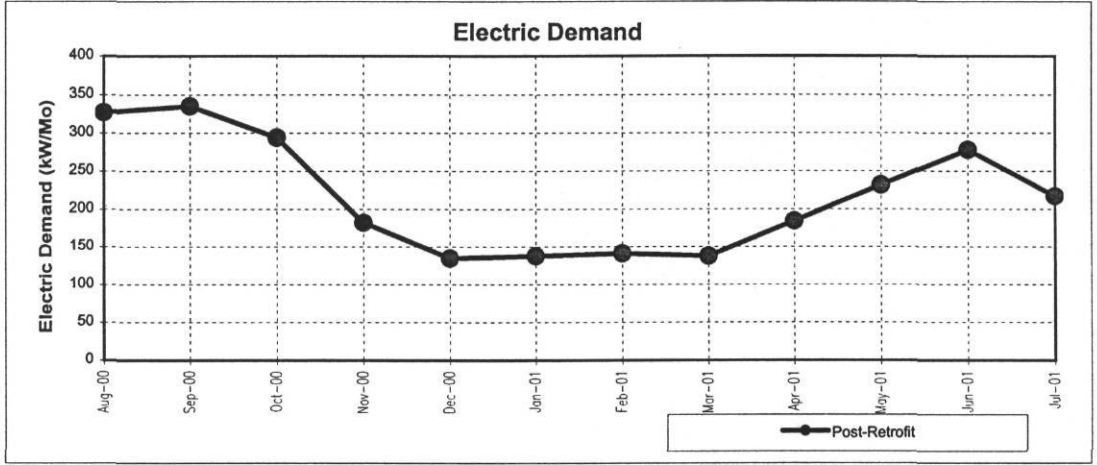
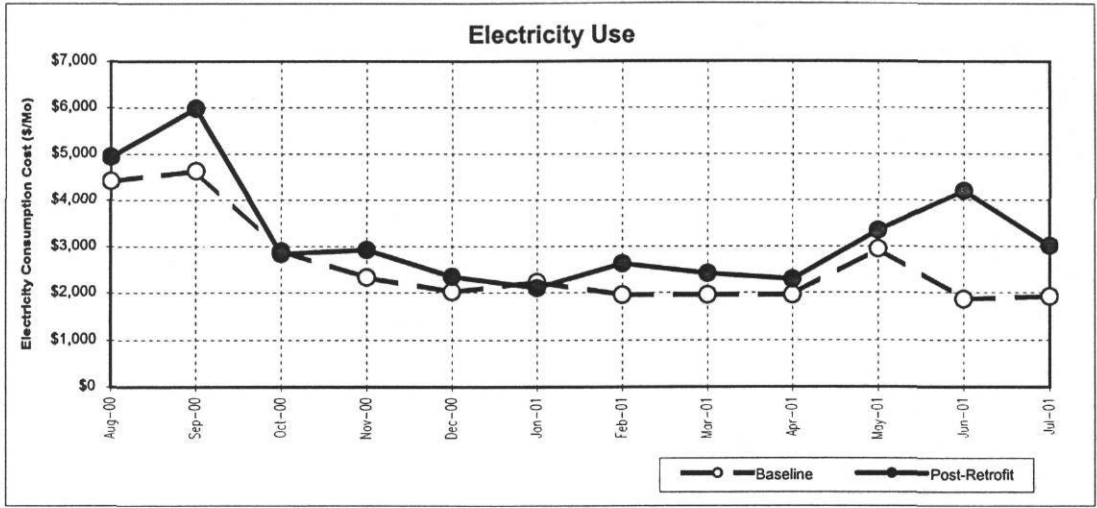
Unit Cost: \$0.0799/kWh
* N.A. means not applicable

Burgess Elementary School

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Texas A&M University
College Station, TX



Carrigan Center
Wichita Falls ISD

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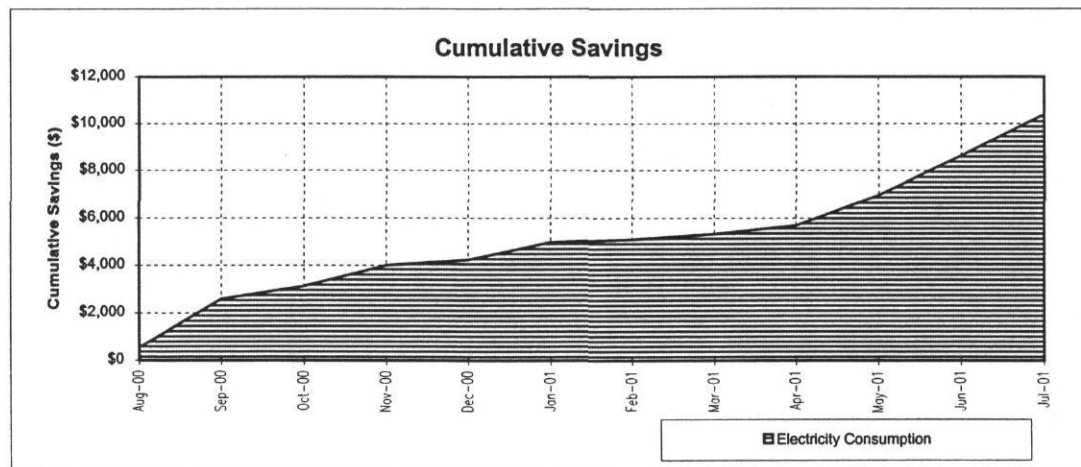
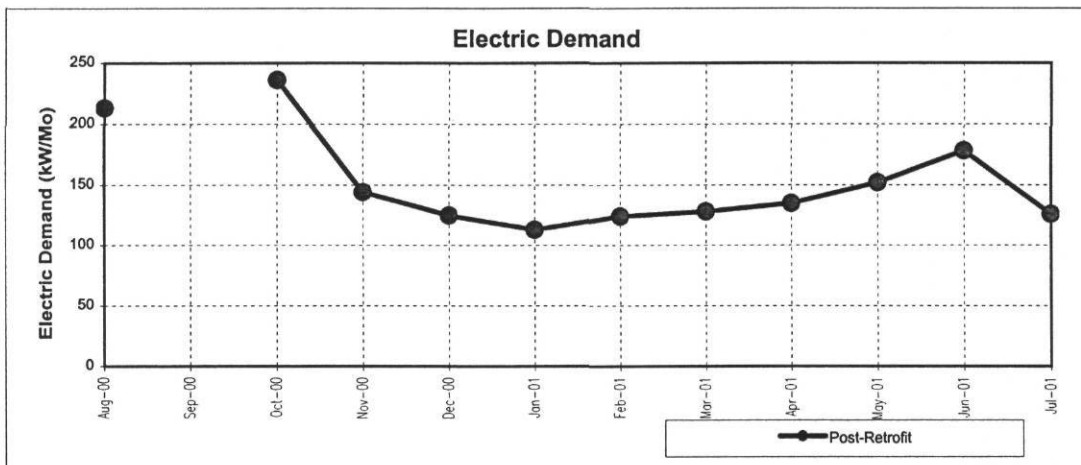
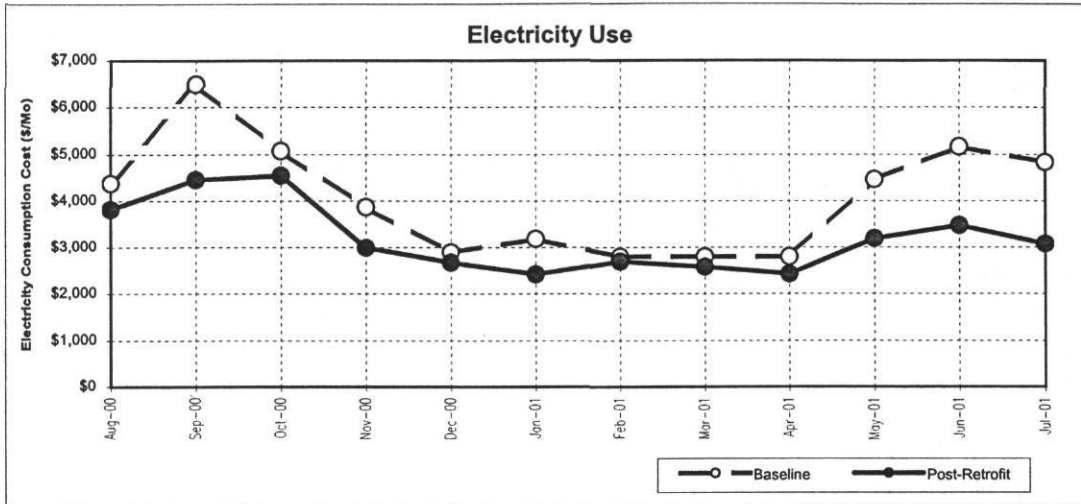
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Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	47,835	\$3,822	\$557	213	\$0	\$0	\$557	\$557
Sep-00	55,710	\$4,451	\$2,042	N.A.*	\$0	\$0	\$2,042	\$2,599
Oct-00	56,880	\$4,545	\$530	236	\$0	\$0	\$530	\$3,129
Nov-00	37,440	\$2,991	\$874	144	\$0	\$0	\$874	\$4,003
Dec-00	33,480	\$2,675	\$224	125	\$0	\$0	\$224	\$4,227
Jan-01	30,330	\$2,423	\$766	113	\$0	\$0	\$766	\$4,993
Feb-01	33,795	\$2,700	\$103	124	\$0	\$0	\$103	\$5,096
Mar-01	32,293	\$2,580	\$223	128	\$0	\$0	\$223	\$5,318
Apr-01	30,443	\$2,432	\$370	135	\$0	\$0	\$370	\$5,689
May-01	39,989	\$3,195	\$1,265	152	\$0	\$0	\$1,265	\$6,954
Jun-01	43,475	\$3,474	\$1,688	178	\$0	\$0	\$1,688	\$8,642
Jul-01	38,478	\$3,074	\$1,758	126	\$0	\$0	\$1,758	\$10,399
TOTAL	480,148	\$38,364	\$10,399	1,674	\$0	\$0	\$10,399	
Audit Estimated Savings			\$11,911			\$0	\$11,911	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Denver Center
Wichita Falls ISD

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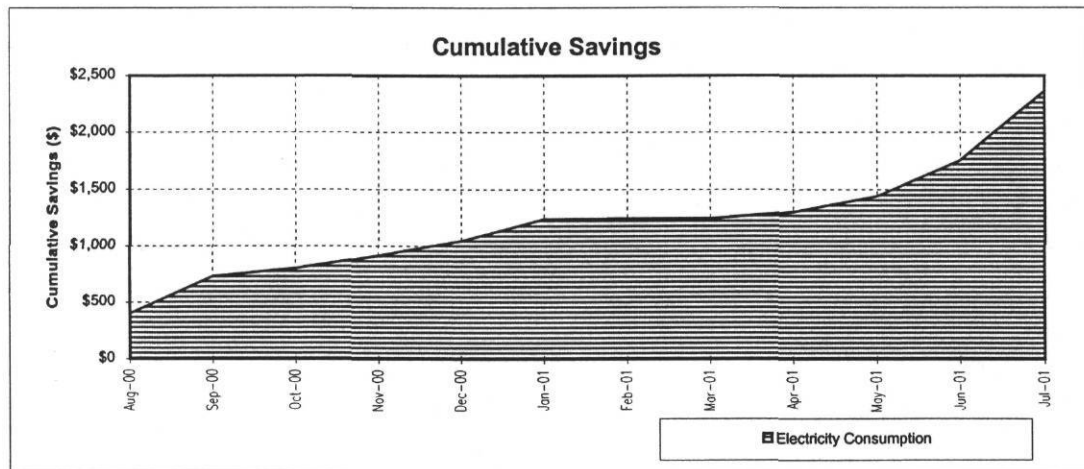
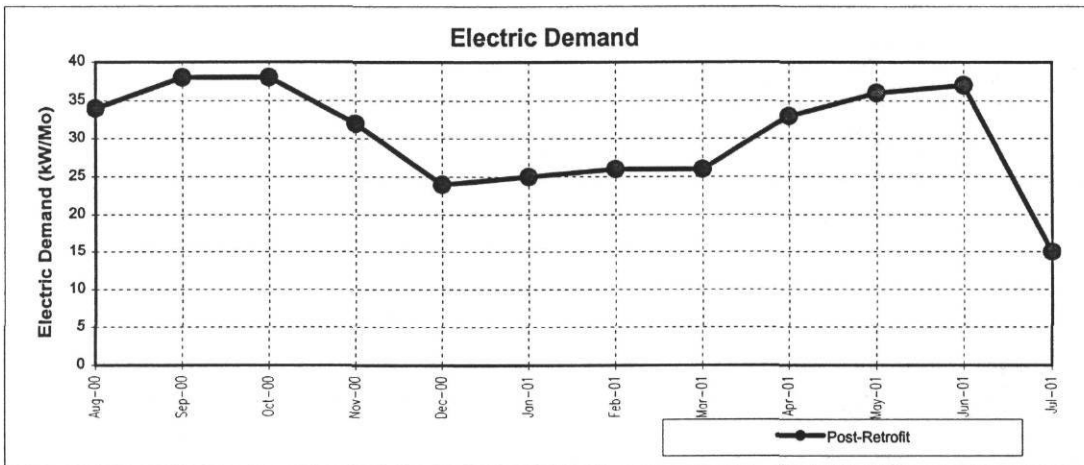
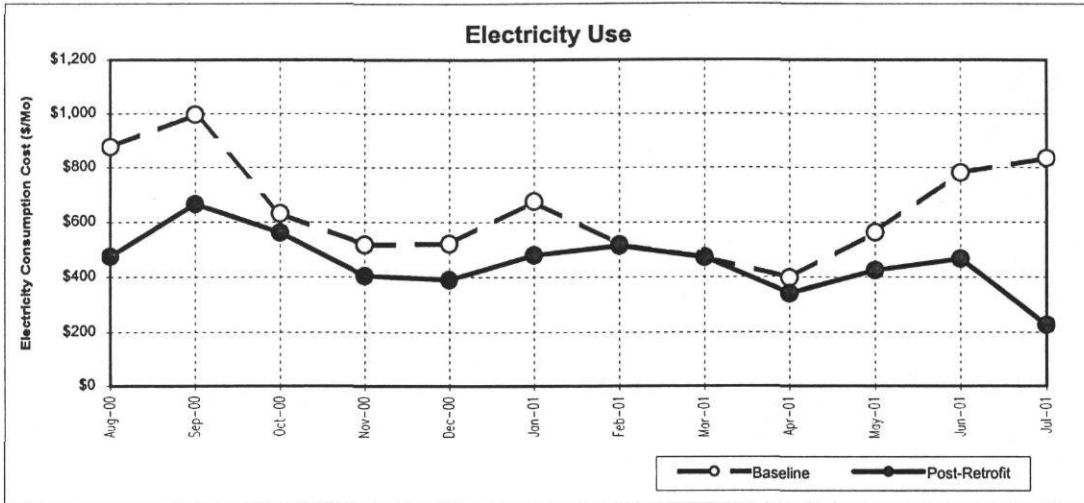
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Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	5,952	\$476	\$402	34	\$0	\$0	\$402	\$402
Sep-00	8,331	\$666	\$330	38	\$0	\$0	\$330	\$731
Oct-00	7,029	\$562	\$70	38	\$0	\$0	\$70	\$801
Nov-00	5,058	\$404	\$114	32	\$0	\$0	\$114	\$915
Dec-00	4,887	\$390	\$132	24	\$0	\$0	\$132	\$1,047
Jan-01	6,012	\$480	\$196	25	\$0	\$0	\$196	\$1,243
Feb-01	6,444	\$515	\$3	26	\$0	\$0	\$3	\$1,246
Mar-01	5,904	\$472	\$1	26	\$0	\$0	\$1	\$1,247
Apr-01	4,275	\$342	\$56	33	\$0	\$0	\$56	\$1,303
May-01	5,310	\$424	\$138	36	\$0	\$0	\$138	\$1,441
Jun-01	5,841	\$467	\$315	37	\$0	\$0	\$315	\$1,756
Jul-01	2,835	\$227	\$609	15	\$0	\$0	\$609	\$2,366
TOTAL	67,878	\$5,423	\$2,366	364	\$0	\$0	\$2,366	
Audit Estimated Savings			\$1,146			\$0	\$1,146	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Fannin Elementary
Wichita Falls ISD

Site Contact
Mr. Skip Alderman
Energy Manager
Wichita Falls ISD, Maintenance Dept.
2015 5th Street
Wichita Falls, TX 76301
(940) 720-3160

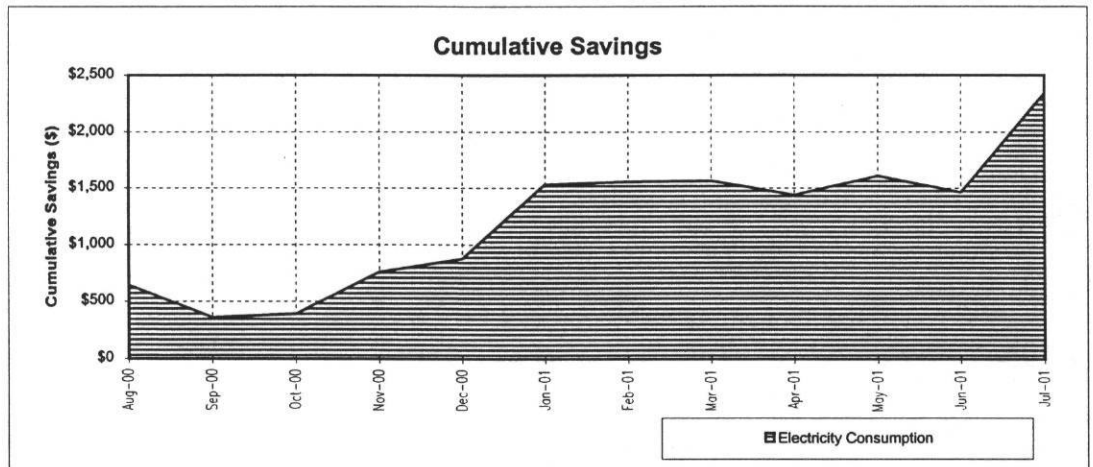
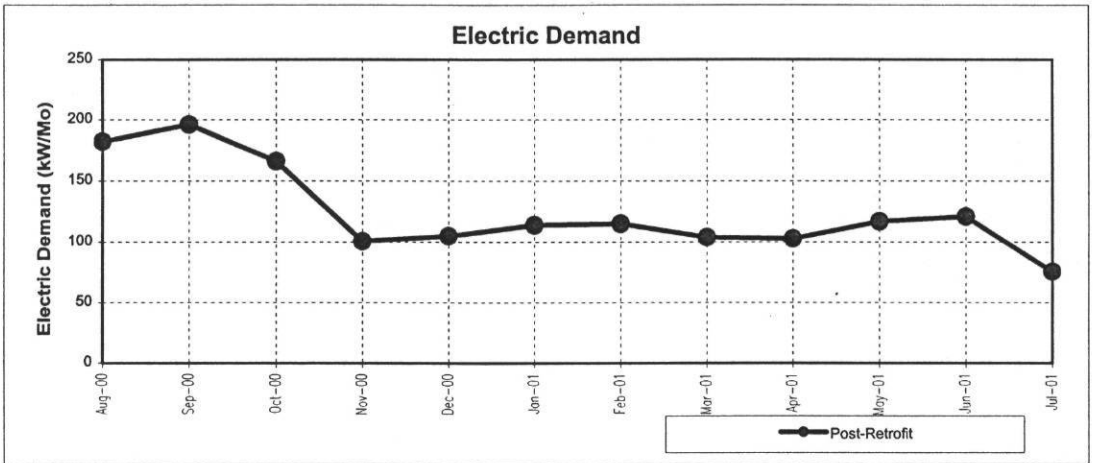
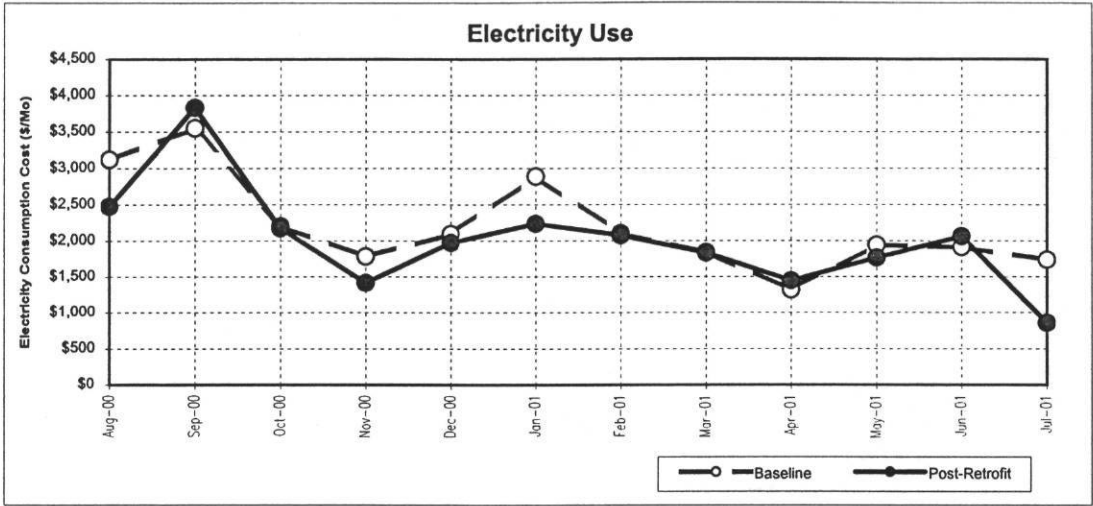
ESL Metering Contact
Bahman Yazdani
053 WERC
Energy Systems Laboratory
Texas A&M University
College Station, TX 77843-3581
(979) 845-9213

Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	31,020	\$2,478	\$643	182	\$0	\$0	\$643	\$643
Sep-00	47,910	\$3,828	(\$281)	196	\$0	\$0	(\$281)	\$362
Oct-00	27,180	\$2,172	\$32	166	\$0	\$0	\$32	\$394
Nov-00	17,730	\$1,417	\$366	101	\$0	\$0	\$366	\$760
Dec-00	24,720	\$1,975	\$118	105	\$0	\$0	\$118	\$878
Jan-01	27,960	\$2,234	\$655	114	\$0	\$0	\$655	\$1,533
Feb-01	25,980	\$2,076	\$26	115	\$0	\$0	\$26	\$1,560
Mar-01	22,920	\$1,831	\$8	104	\$0	\$0	\$8	\$1,568
Apr-01	18,120	\$1,448	(\$128)	103	\$0	\$0	(\$128)	\$1,439
May-01	22,110	\$1,767	\$175	117	\$0	\$0	\$175	\$1,614
Jun-01	25,800	\$2,061	(\$149)	121	\$0	\$0	(\$149)	\$1,465
Jul-01	10,770	\$861	\$878	76	\$0	\$0	\$878	\$2,344
TOTAL	302,220	\$24,147	\$2,344	1,500	\$0	\$0	\$2,344	
Audit Estimated Savings			\$2,746			\$0	\$2,746	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Harrell Center
Wichita Falls ISD

Site Contact

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Energy Manager
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ESL Metering Contact

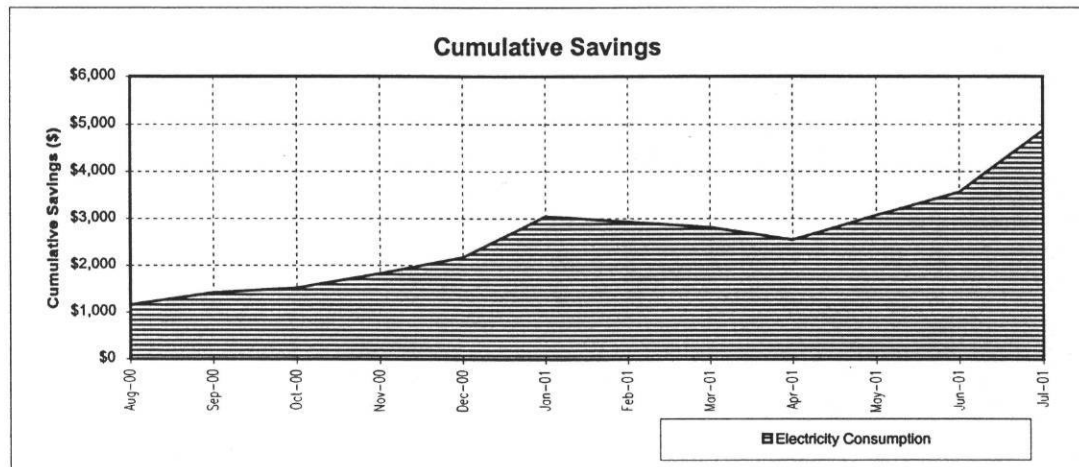
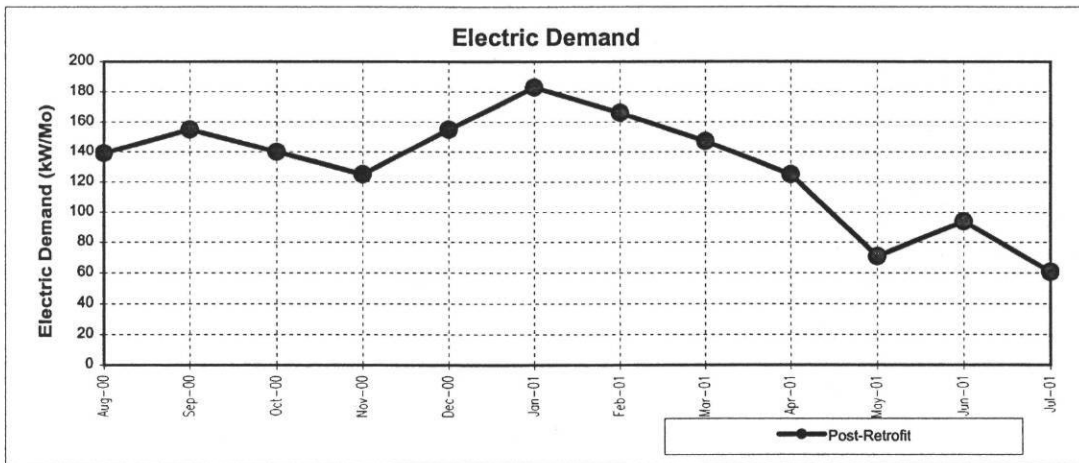
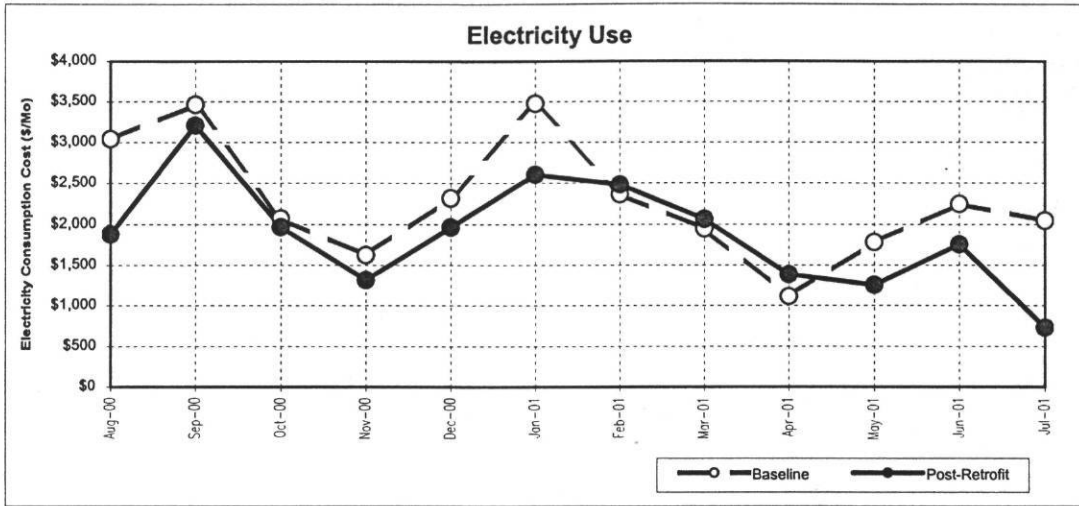
Bahman Yazdani
053 WERC
Energy Systems Laboratory
Texas A&M University
College Station, TX 77843-3581
(979) 845-9213

Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	23,550	\$1,882	\$1,161	139	\$0	\$0	\$1,161	\$1,161
Sep-00	40,170	\$3,210	\$255	155	\$0	\$0	\$255	\$1,416
Oct-00	24,630	\$1,968	\$101	140	\$0	\$0	\$101	\$1,517
Nov-00	16,470	\$1,316	\$307	125	\$0	\$0	\$307	\$1,824
Dec-00	24,570	\$1,963	\$355	155	\$0	\$0	\$355	\$2,178
Jan-01	32,610	\$2,606	\$871	183	\$0	\$0	\$871	\$3,049
Feb-01	31,050	\$2,481	(\$116)	166	\$0	\$0	(\$116)	\$2,933
Mar-01	25,800	\$2,061	(\$113)	147	\$0	\$0	(\$113)	\$2,820
Apr-01	17,340	\$1,385	(\$272)	125	\$0	\$0	(\$272)	\$2,548
May-01	15,690	\$1,254	\$528	71	\$0	\$0	\$528	\$3,076
Jun-01	21,960	\$1,755	\$493	94	\$0	\$0	\$493	\$3,569
Jul-01	9,180	\$733	\$1,310	61	\$0	\$0	\$1,310	\$4,879
TOTAL	283,020	\$22,613	\$4,879	1,561	\$0	\$0	\$4,879	
Audit Estimated Savings			\$2,251			\$0	\$2,251	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Haynes Elementary Wichita Falls ISD

Site Contact

Mr. Skip Alderman
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Wichita Falls ISD, Maintenance Dept.
2015 5th Street
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ESL Metering Contact

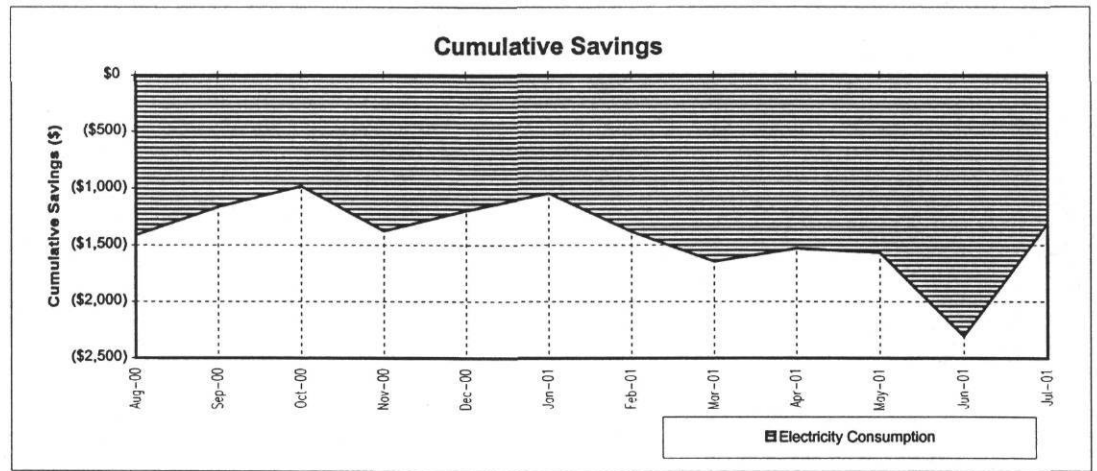
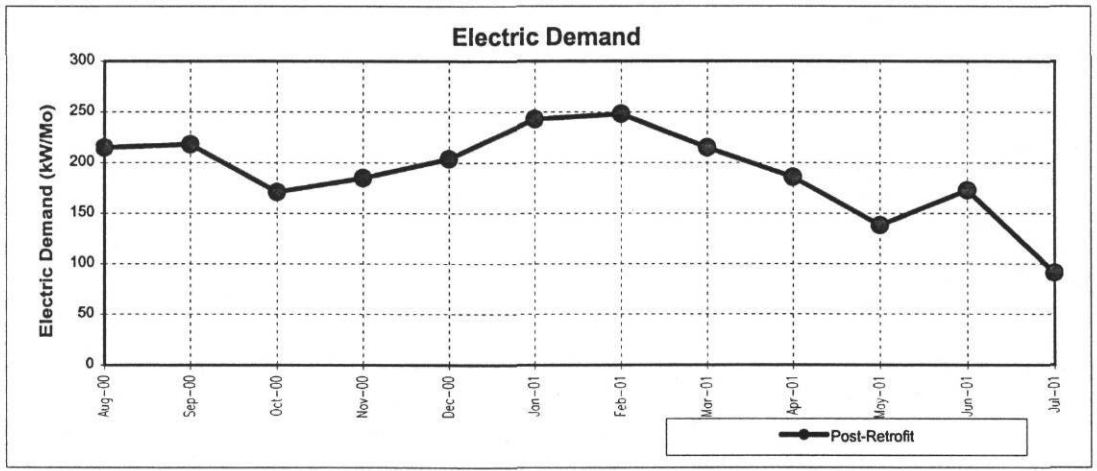
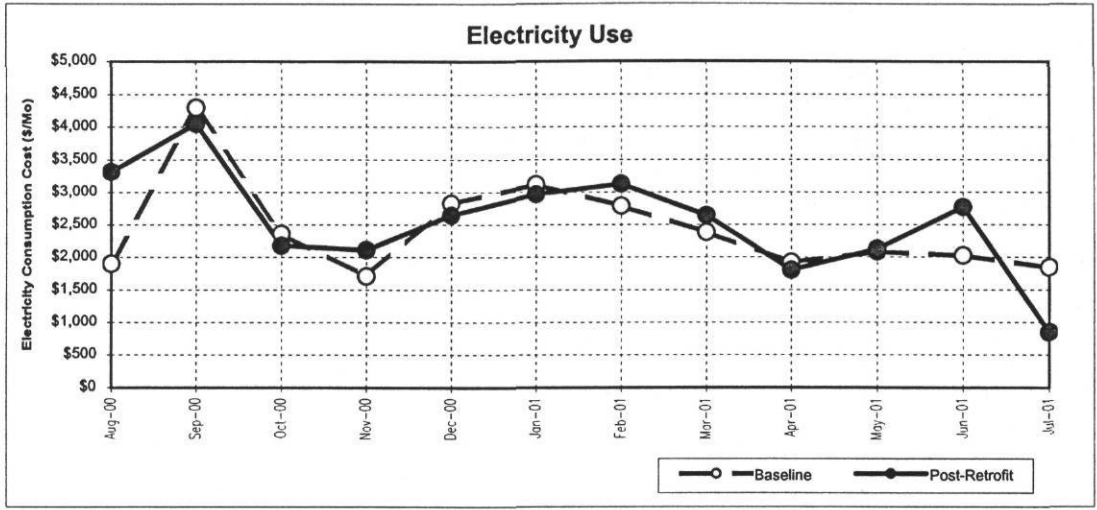
Bahman Yazdani
053 WERC
Energy Systems Laboratory
Texas A&M University
College Station, TX 77843-3581
(979) 845-9213

Aug-00 to Jul-01 Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	41,520	\$3,317	(\$1,413)	215	\$0	\$0	(\$1,413)	(\$1,413)
Sep-00	50,700	\$4,051	\$246	218	\$0	\$0	\$246	(\$1,167)
Oct-00	27,240	\$2,176	\$185	171	\$0	\$0	\$185	(\$982)
Nov-00	26,370	\$2,107	(\$394)	185	\$0	\$0	(\$394)	(\$1,376)
Dec-00	33,120	\$2,646	\$179	204	\$0	\$0	\$179	(\$1,197)
Jan-01	37,170	\$2,970	\$154	243	\$0	\$0	\$154	(\$1,043)
Feb-01	39,150	\$3,128	(\$339)	248	\$0	\$0	(\$339)	(\$1,382)
Mar-01	33,030	\$2,639	(\$262)	215	\$0	\$0	(\$262)	(\$1,644)
Apr-01	22,590	\$1,805	\$116	186	\$0	\$0	\$116	(\$1,528)
May-01	26,580	\$2,124	(\$38)	138	\$0	\$0	(\$38)	(\$1,566)
Jun-01	34,650	\$2,769	(\$741)	173	\$0	\$0	(\$741)	(\$2,307)
Jul-01	10,560	\$844	\$999	91	\$0	\$0	\$999	(\$1,308)
TOTAL	382,680	\$30,576	-\$1,308	2,287	\$0	\$0	-\$1,308	
Audit Estimated Savings			\$3,155			\$0	\$3,155	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Holland Center
Wichita Falls ISD

Site Contact

Mr. Skip Alderman
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(940) 720-3160

ESL Metering Contact

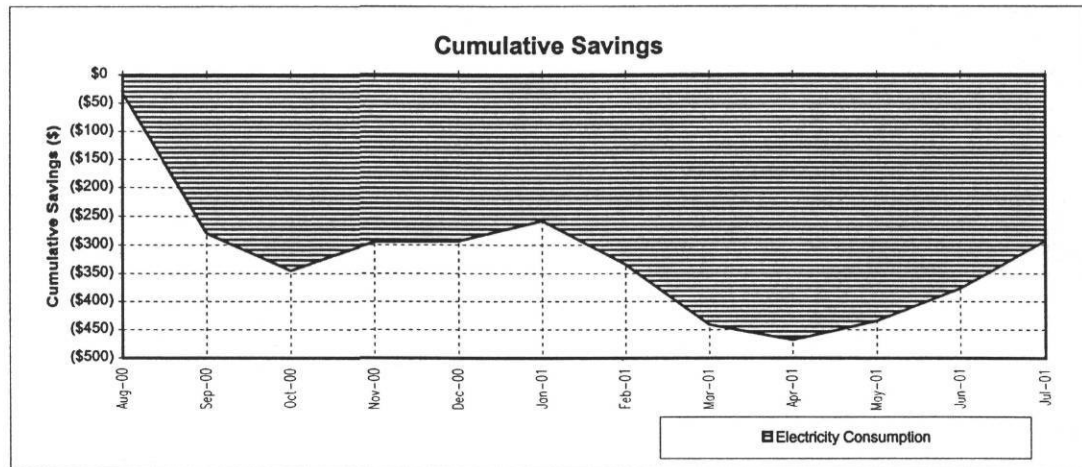
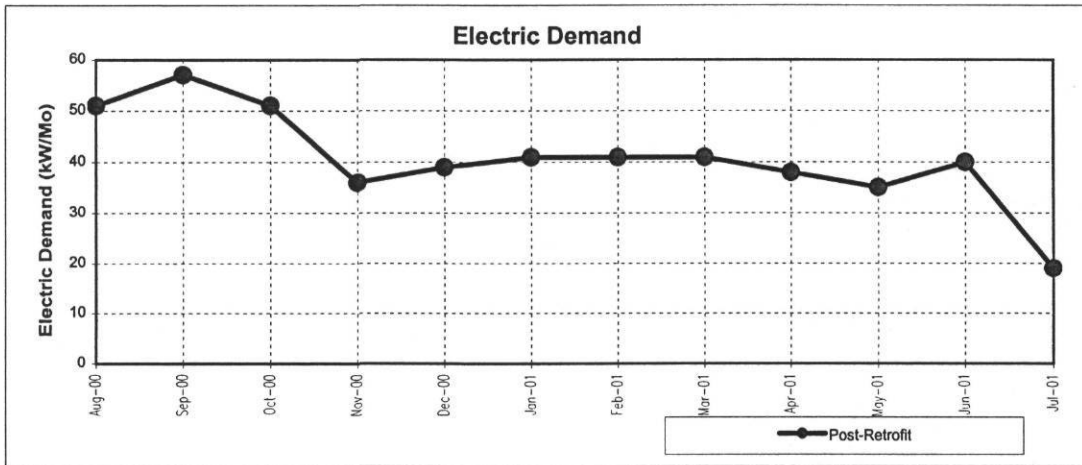
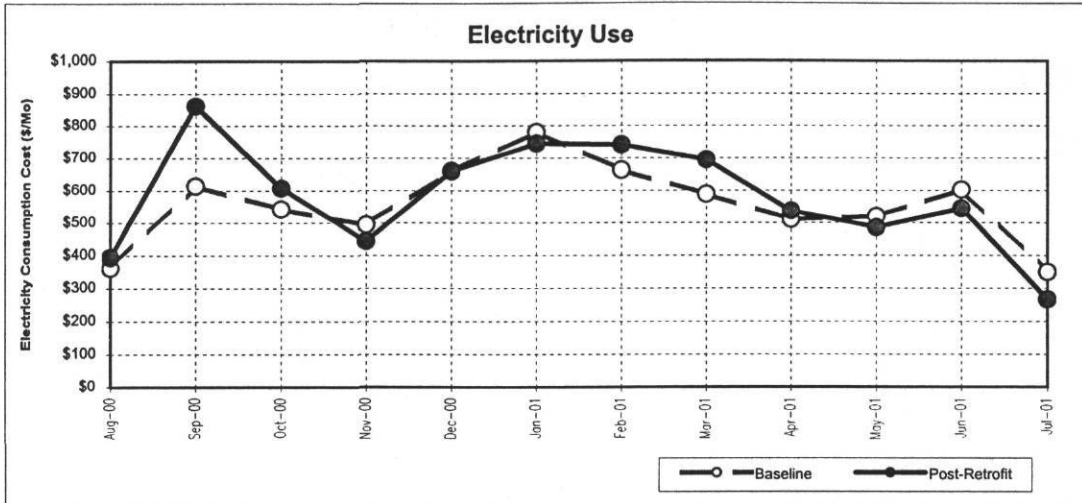
Bahman Yazdani
053 WERC
Energy Systems Laboratory
Texas A&M University
College Station, TX 77843-3581
(979) 845-9213

Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	4,938	\$395	(\$33)	51	\$0	\$0	(\$33)	(\$33)
Sep-00	10,782	\$861	(\$247)	57	\$0	\$0	(\$247)	(\$280)
Oct-00	7,608	\$608	(\$65)	51	\$0	\$0	(\$65)	(\$345)
Nov-00	5,562	\$444	\$51	36	\$0	\$0	\$51	(\$295)
Dec-00	8,256	\$660	\$1	39	\$0	\$0	\$1	(\$293)
Jan-01	9,330	\$745	\$36	41	\$0	\$0	\$36	(\$258)
Feb-01	9,276	\$741	(\$77)	41	\$0	\$0	(\$77)	(\$335)
Mar-01	8,706	\$696	(\$106)	41	\$0	\$0	(\$106)	(\$441)
Apr-01	6,720	\$537	(\$27)	38	\$0	\$0	(\$27)	(\$468)
May-01	6,084	\$486	\$34	35	\$0	\$0	\$34	(\$434)
Jun-01	6,822	\$545	\$58	40	\$0	\$0	\$58	(\$376)
Jul-01	3,330	\$266	\$84	19	\$0	\$0	\$84	(\$292)
TOTAL	87,414	\$6,984	-\$292	489	\$0	\$0	-\$292	
Audit Estimated Savings			\$215			\$0	\$215	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Houston Elementary
Wichita Falls ISD

Site Contact

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ESL Metering Contact

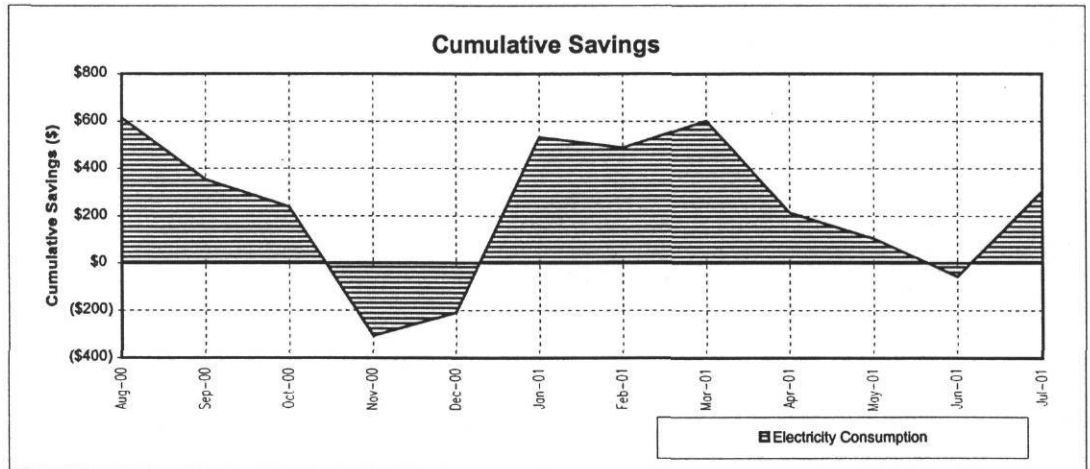
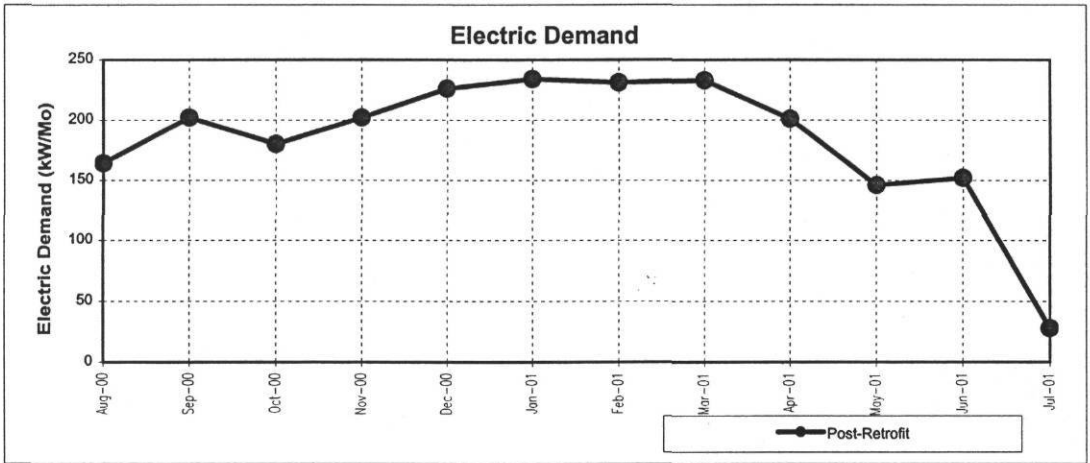
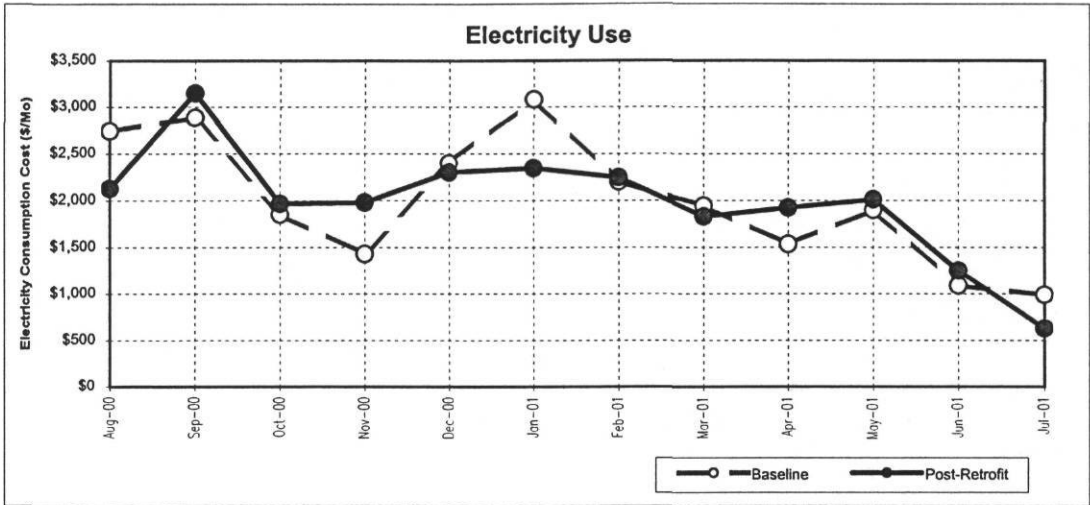
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Energy Systems Laboratory
Texas A&M University
College Station, TX 77843-3581
(979) 845-9213

Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	26,640	\$2,129	\$616	164	\$0	\$0	\$616	\$616
Sep-00	39,420	\$3,150	(\$262)	202	\$0	\$0	(\$262)	\$354
Oct-00	24,615	\$1,967	(\$115)	180	\$0	\$0	(\$115)	\$239
Nov-00	24,750	\$1,978	(\$546)	202	\$0	\$0	(\$546)	(\$307)
Dec-00	28,755	\$2,298	\$99	226	\$0	\$0	\$99	(\$208)
Jan-01	29,340	\$2,344	\$740	234	\$0	\$0	\$740	\$532
Feb-01	28,080	\$2,244	(\$46)	231	\$0	\$0	(\$46)	\$487
Mar-01	22,905	\$1,830	\$116	233	\$0	\$0	\$116	\$602
Apr-01	24,075	\$1,924	(\$388)	201	\$0	\$0	(\$388)	\$215
May-01	25,155	\$2,010	(\$110)	146	\$0	\$0	(\$110)	\$105
Jun-01	15,660	\$1,251	(\$161)	152	\$0	\$0	(\$161)	(\$57)
Jul-01	7,875	\$629	\$362	28	\$0	\$0	\$362	\$305
TOTAL	297,270	\$23,752	\$305	2,199	\$0	\$0	\$305	
Audit Estimated Savings			\$1,831			\$0	\$1,831	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Jefferson Elementary
Wichita Falls ISD

Site Contact _____

Mr. Skip Alderman
Energy Manager
Wichita Falls ISD, Maintenance Dept.
2015 5th Street
Wichita Falls, TX 76301
(940) 720-3160

ESL Metering Contact _____

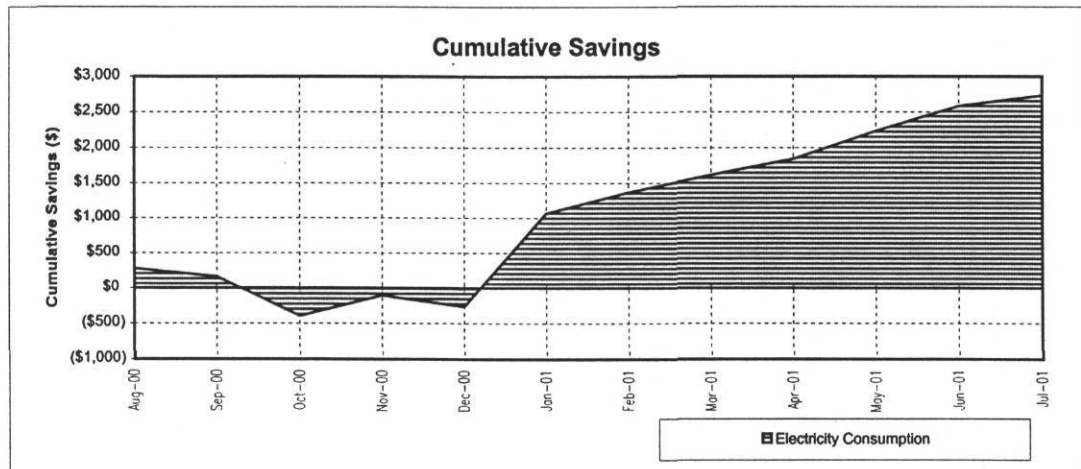
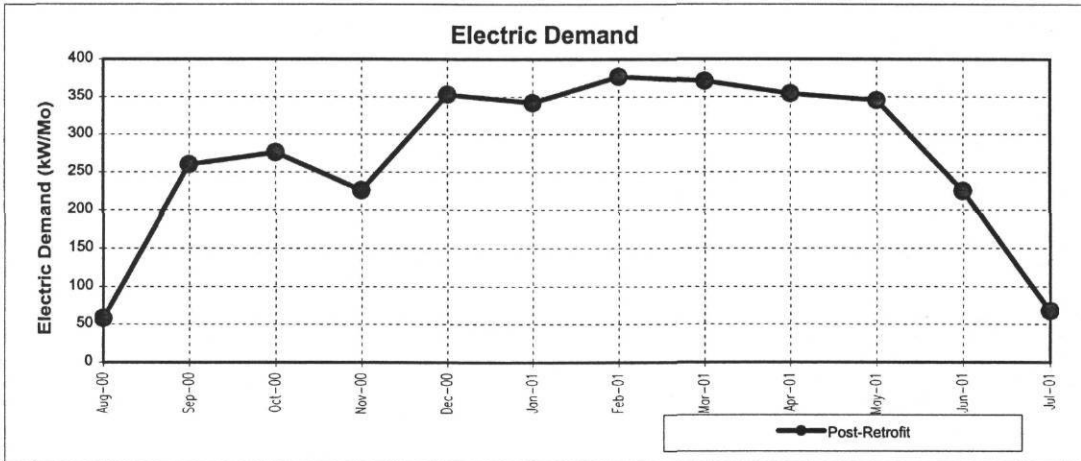
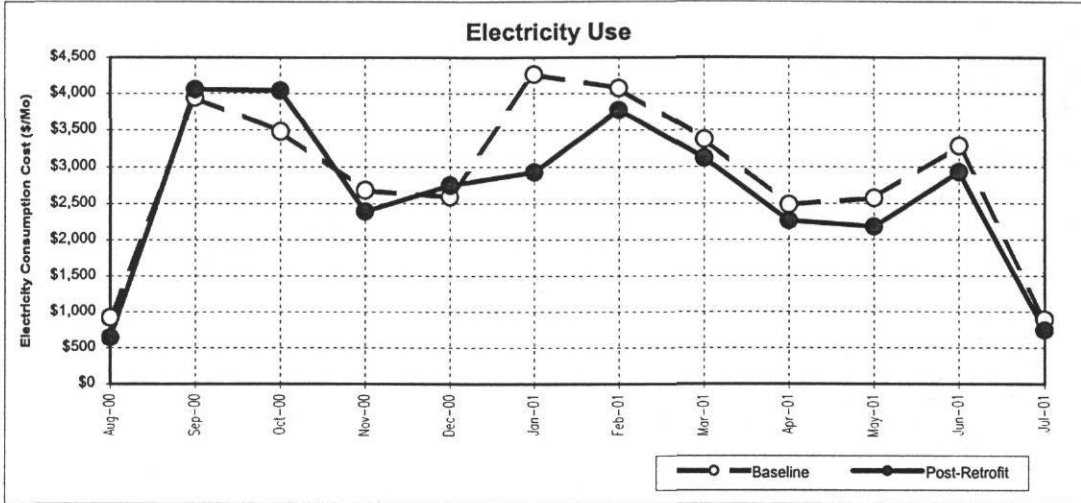
Bahman Yazdani
053 WERC
Energy Systems Laboratory
Texas A&M University
College Station, TX 77843-3581
(979) 845-9213

Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	8,064	\$644	\$280	58	\$0	\$0	\$280	\$280
Sep-00	50,796	\$4,059	(\$117)	260	\$0	\$0	(\$117)	\$163
Oct-00	50,544	\$4,038	(\$558)	276	\$0	\$0	(\$558)	(\$396)
Nov-00	29,952	\$2,393	\$286	226	\$0	\$0	\$286	(\$110)
Dec-00	34,416	\$2,750	(\$157)	353	\$0	\$0	(\$157)	(\$267)
Jan-01	36,684	\$2,931	\$1,334	342	\$0	\$0	\$1,334	\$1,067
Feb-01	47,196	\$3,771	\$302	377	\$0	\$0	\$302	\$1,370
Mar-01	39,060	\$3,121	\$250	371	\$0	\$0	\$250	\$1,619
Apr-01	28,332	\$2,264	\$221	354	\$0	\$0	\$221	\$1,840
May-01	27,288	\$2,180	\$393	345	\$0	\$0	\$393	\$2,233
Jun-01	36,648	\$2,928	\$355	225	\$0	\$0	\$355	\$2,588
Jul-01	9,360	\$748	\$146	68	\$0	\$0	\$146	\$2,733
TOTAL	398,340	\$31,827	\$2,733	3,255	\$0	\$0	\$2,733	
Audit Estimated Savings			\$1,547			\$0	\$1,547	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Kirby Jr High School
Wichita Falls ISD

Site Contact

Mr. Skip Alderman
Energy Manager
Wichita Falls ISD, Maintenance Dept.
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ESL Metering Contact

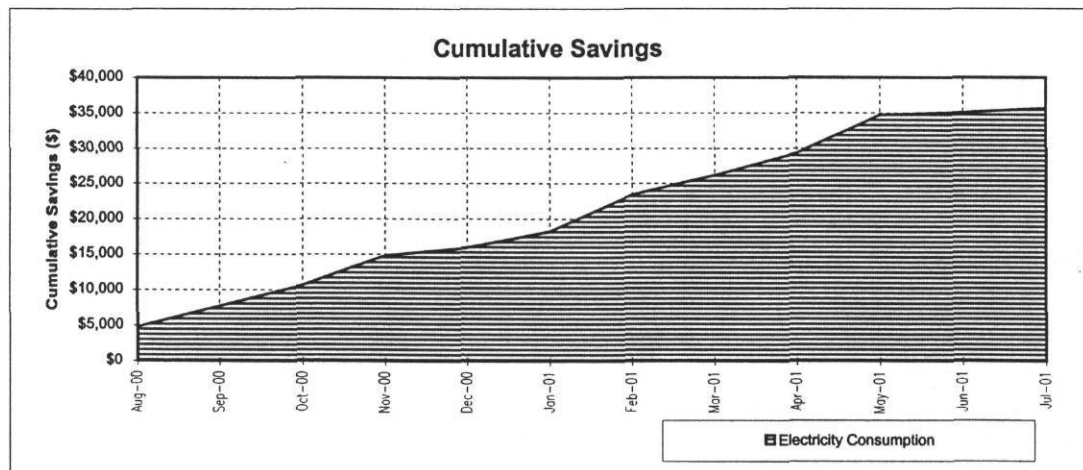
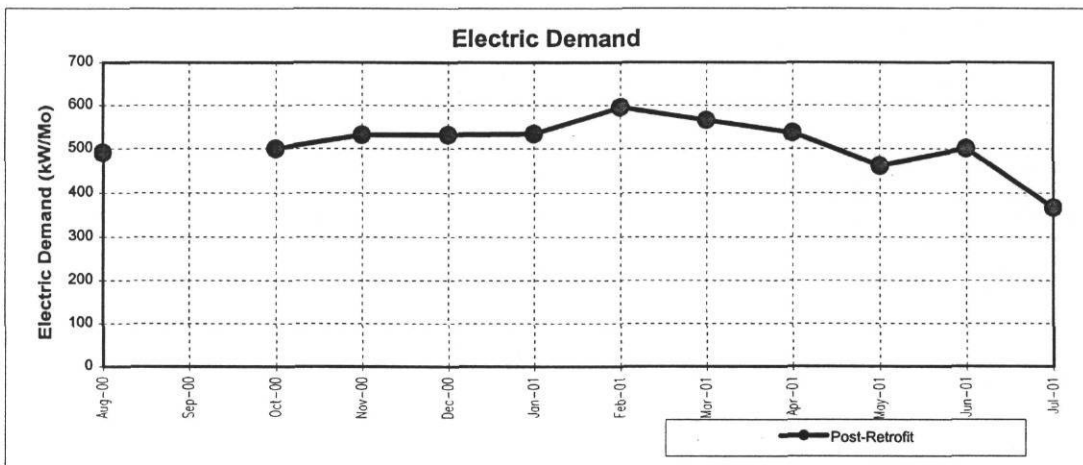
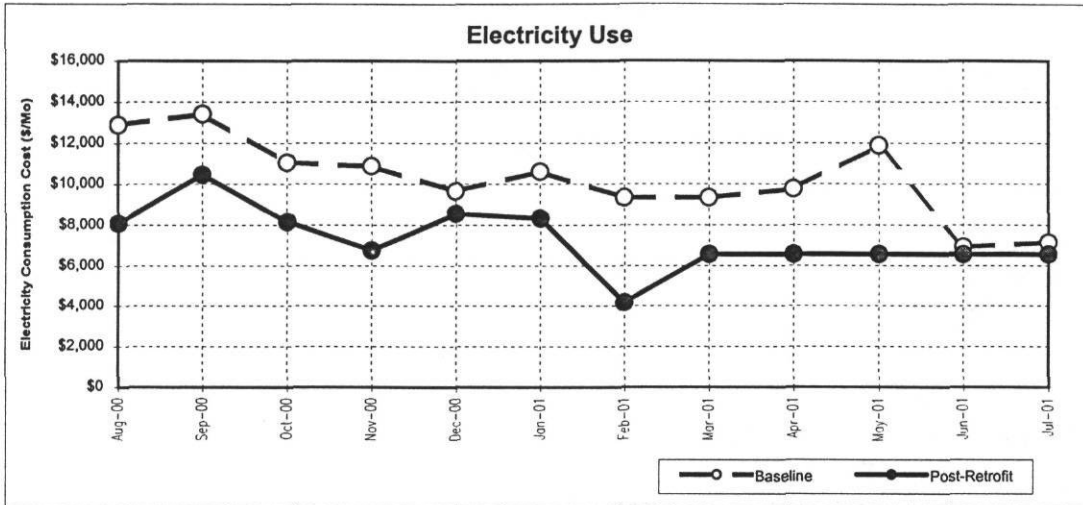
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Texas A&M University
College Station, TX 77843-3581
(979) 845-9213

Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	101,250	\$8,090	\$4,807	491	\$0	\$0	\$4,807	\$4,807
Sep-00	130,860	\$10,456	\$2,957	N.A.*	\$0	\$0	\$2,957	\$7,764
Oct-00	101,970	\$8,147	\$2,915	500	\$0	\$0	\$2,915	\$10,679
Nov-00	84,420	\$6,745	\$4,150	532	\$0	\$0	\$4,150	\$14,829
Dec-00	107,190	\$8,564	\$1,095	532	\$0	\$0	\$1,095	\$15,924
Jan-01	104,130	\$8,320	\$2,305	534	\$0	\$0	\$2,305	\$18,229
Feb-01	52,110	\$4,164	\$5,174	595	\$0	\$0	\$5,174	\$23,403
Mar-01	82,170	\$6,565	\$2,772	566	\$0	\$0	\$2,772	\$26,175
Apr-01	82,171	\$6,565	\$3,210	537	\$0	\$0	\$3,210	\$29,384
May-01	82,172	\$6,566	\$5,331	462	\$0	\$0	\$5,331	\$34,716
Jun-01	82,173	\$6,566	\$357	501	\$0	\$0	\$357	\$35,073
Jul-01	82,174	\$6,566	\$580	367	\$0	\$0	\$580	\$35,653
TOTAL	1,092,790	\$87,314	\$35,653	5,617	\$0	\$0	\$35,653	
Audit Estimated Savings			\$14,120			\$0	\$14,120	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Lamar Elementary
Wichita Falls ISD

Site Contact

Mr. Skip Alderman
Energy Manager
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ESL Metering Contact

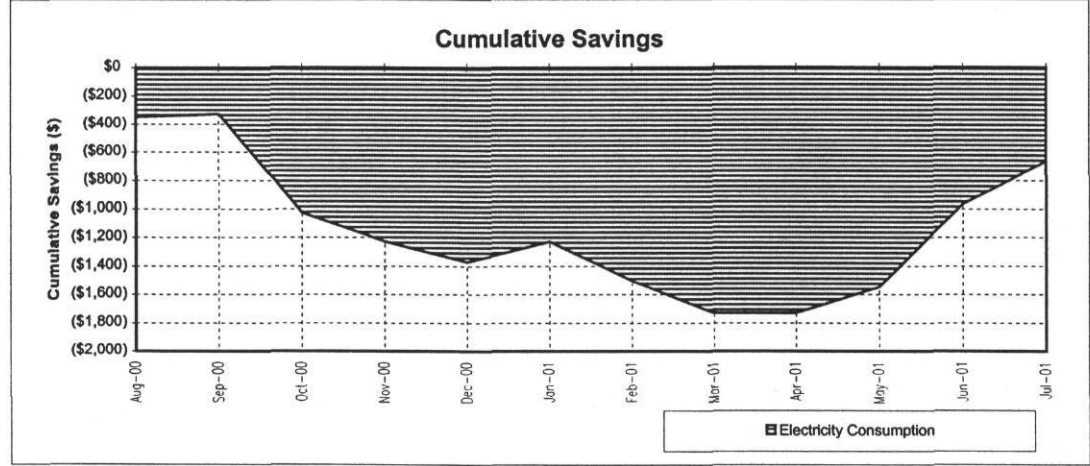
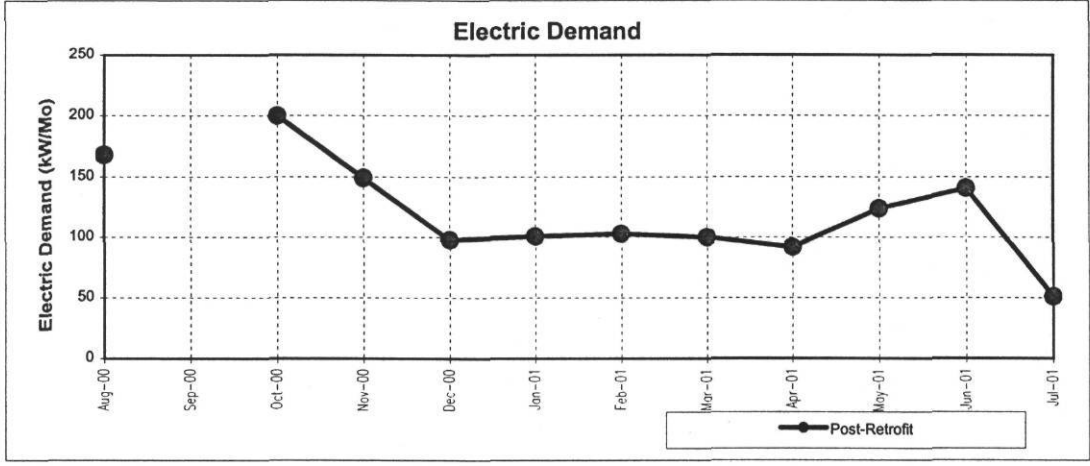
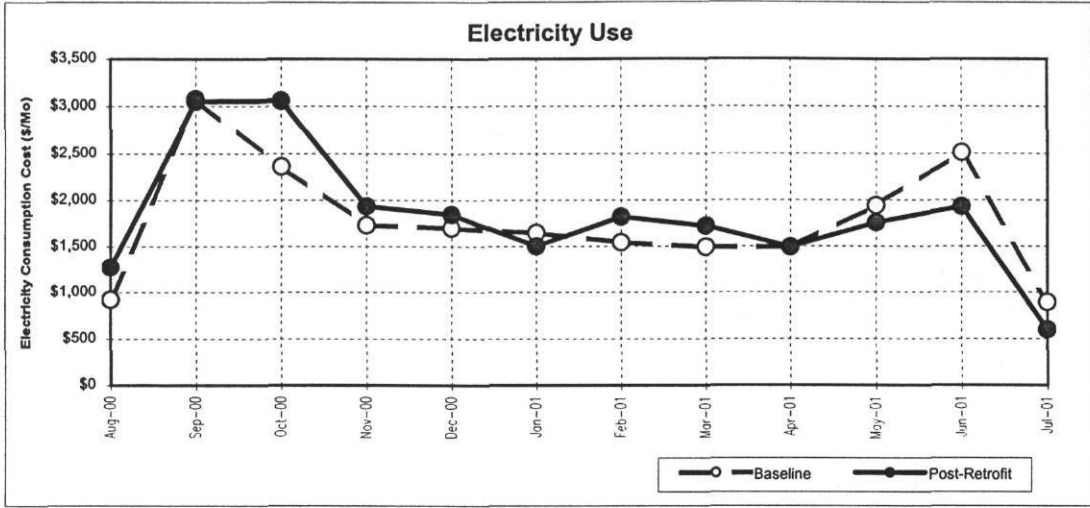
Bahman Yazdani
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Energy Systems Laboratory
Texas A&M University
College Station, TX 77843-3581
(979) 845-9213

Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	15,960	\$1,275	(\$350)	168	\$0	\$0	(\$350)	(\$350)
Sep-00	38,220	\$3,054	\$23	N.A.*	\$0	\$0	\$23	(\$327)
Oct-00	38,280	\$3,059	(\$698)	200	\$0	\$0	(\$698)	(\$1,025)
Nov-00	24,210	\$1,934	(\$203)	149	\$0	\$0	(\$203)	(\$1,228)
Dec-00	23,070	\$1,843	(\$143)	98	\$0	\$0	(\$143)	(\$1,371)
Jan-01	18,840	\$1,505	\$144	101	\$0	\$0	\$144	(\$1,227)
Feb-01	22,800	\$1,822	(\$276)	103	\$0	\$0	(\$276)	(\$1,503)
Mar-01	21,520	\$1,719	(\$225)	100	\$0	\$0	(\$225)	(\$1,728)
Apr-01	18,691	\$1,493	\$1	92	\$0	\$0	\$1	(\$1,727)
May-01	22,010	\$1,759	\$182	124	\$0	\$0	\$182	(\$1,545)
Jun-01	24,146	\$1,929	\$582	141	\$0	\$0	\$582	(\$963)
Jul-01	7,485	\$598	\$298	51	\$0	\$0	\$298	(\$665)
TOTAL	275,232	\$21,991	-\$665	1,327	\$0	\$0	-\$665	
Audit Estimated Savings			\$3,773			\$0	\$3,773	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



McGaha Elementary

Wichita Falls ISD

Site Contact

Mr. Skip Alderman
 Energy Manager
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 2015 5th Street
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ESL Metering Contact

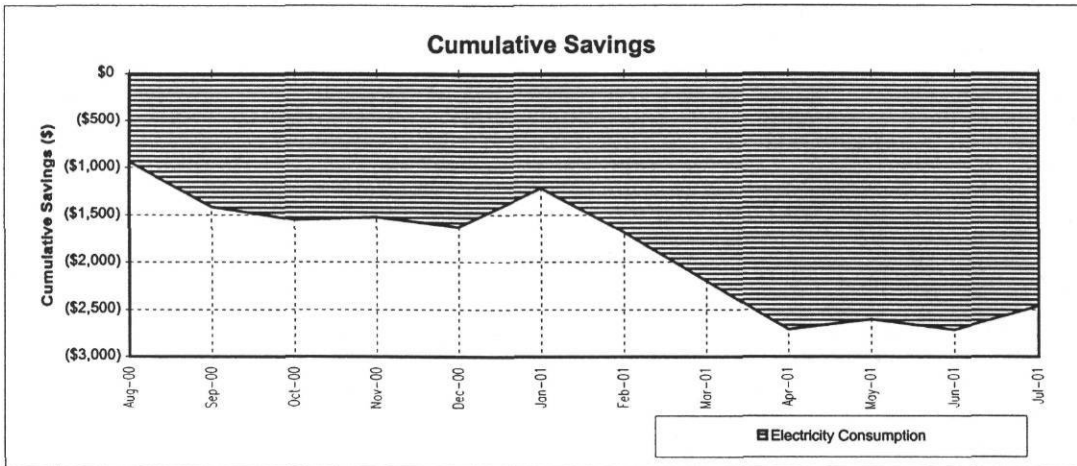
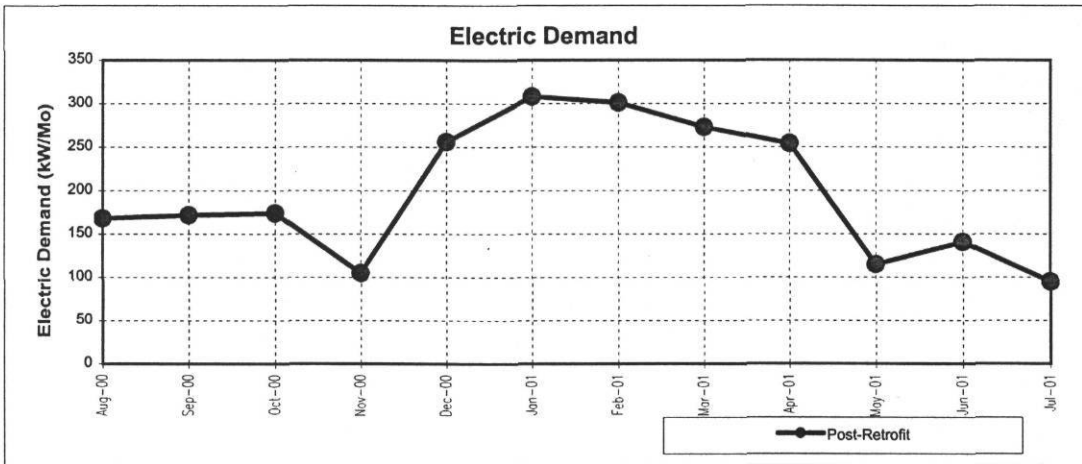
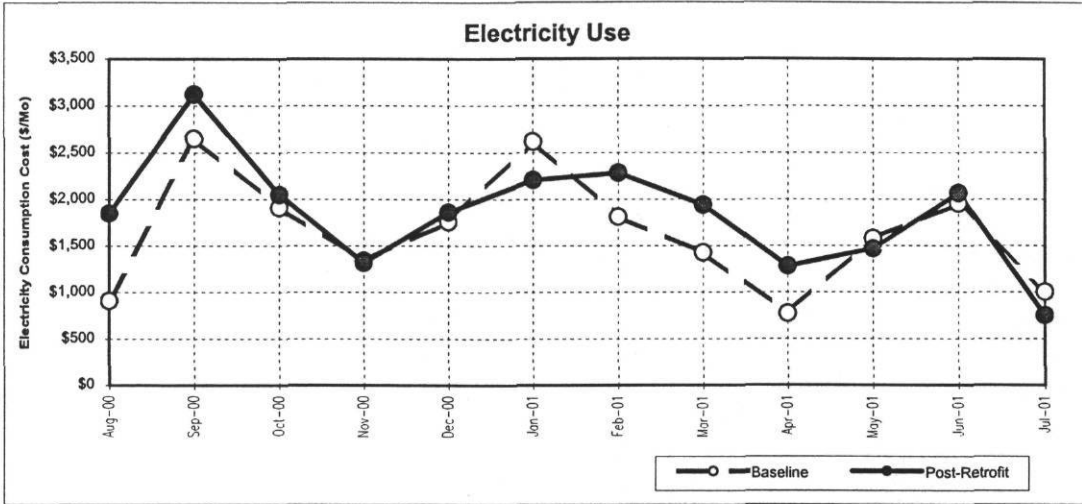
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 College Station, TX 77843-3581
 (979) 845-9213

Aug-00 to Jul-01 Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	23,184	\$1,852	(\$941)	168	\$0	\$0	(\$941)	(\$941)
Sep-00	39,048	\$3,120	(\$472)	172	\$0	\$0	(\$472)	(\$1,412)
Oct-00	25,632	\$2,048	(\$137)	174	\$0	\$0	(\$137)	(\$1,550)
Nov-00	16,488	\$1,317	\$25	105	\$0	\$0	\$25	(\$1,525)
Dec-00	23,304	\$1,862	(\$104)	256	\$0	\$0	(\$104)	(\$1,629)
Jan-01	27,600	\$2,205	\$413	308	\$0	\$0	\$413	(\$1,216)
Feb-01	28,536	\$2,280	(\$468)	301	\$0	\$0	(\$468)	(\$1,684)
Mar-01	24,312	\$1,943	(\$515)	273	\$0	\$0	(\$515)	(\$2,198)
Apr-01	16,080	\$1,285	(\$511)	254	\$0	\$0	(\$511)	(\$2,710)
May-01	18,408	\$1,471	\$108	115	\$0	\$0	\$108	(\$2,601)
Jun-01	25,848	\$2,065	(\$111)	141	\$0	\$0	(\$111)	(\$2,712)
Jul-01	9,432	\$754	\$252	95	\$0	\$0	\$252	(\$2,459)
TOTAL	277,872	\$22,202	-\$2,459	2,362	\$0	\$0	-\$2,459	
Audit Estimated Savings			\$2,096			\$0	\$2,096	

Comments:

Unit Cost: \$0.0799/kWh
 * N.A. means not applicable



McNeil Jr High School
Wichita Falls ISD

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ESL Metering Contact

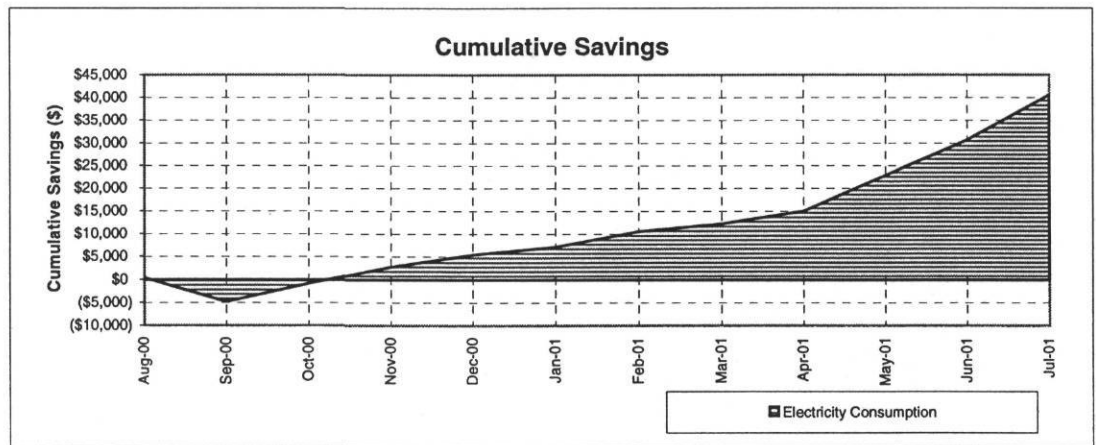
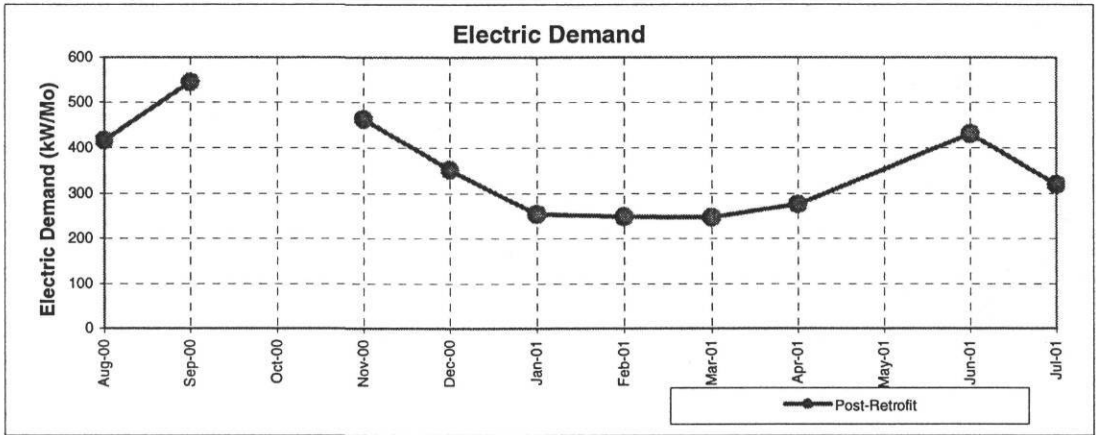
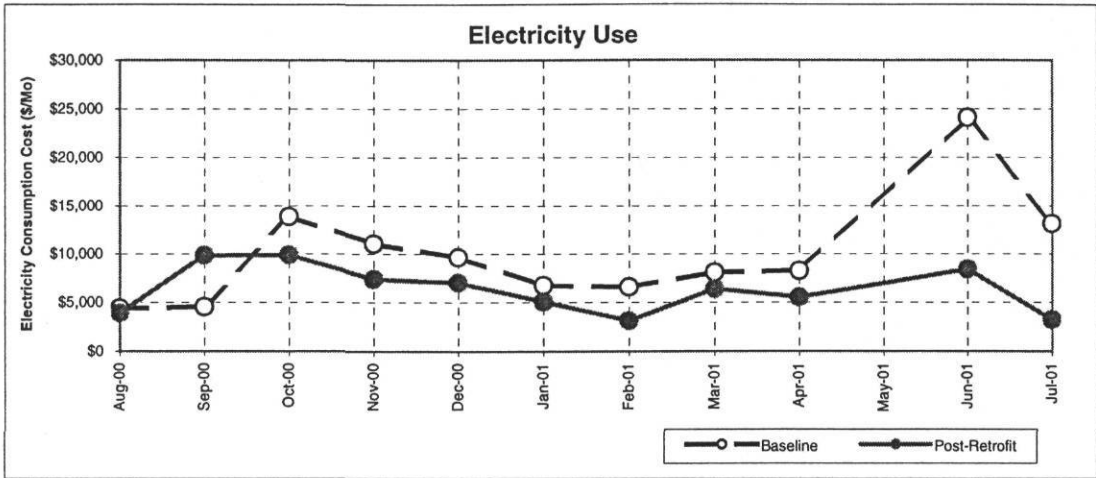
Bahman Yazdani
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Texas A&M University
College Station, TX 77843-3581
(979) 845-9213

Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	48,960	\$3,912	\$495	416	\$0	\$0	\$495	\$495
Sep-00	123,390	\$9,859	(\$5,305)	545	\$0	\$0	(\$5,305)	(\$4,810)
Oct-00	123,570	\$9,873	\$3,987	N.A.*	\$0	\$0	\$3,987	(\$823)
Nov-00	92,610	\$7,400	\$3,642	463	\$0	\$0	\$3,642	\$2,819
Dec-00	88,110	\$7,040	\$2,615	352	\$0	\$0	\$2,615	\$5,434
Jan-01	63,450	\$5,070	\$1,686	254	\$0	\$0	\$1,686	\$7,120
Feb-01	39,150	\$3,128	\$3,455	248	\$0	\$0	\$3,455	\$10,575
Mar-01	80,198	\$6,408	\$1,671	247	\$0	\$0	\$1,671	\$12,246
Apr-01	69,235	\$5,532	\$2,734	276	\$0	\$0	\$2,734	\$14,980
Jun-01	105,572	\$8,435	\$15,672	431	\$0	\$0	\$15,672	\$30,652
Jul-01	40,293	\$3,219	\$9,901	320	\$0	\$0	\$9,901	\$40,553
TOTAL	874,538	\$69,876	\$40,553	3,552	\$0	\$0	\$40,553	
Audit Estimated Savings			\$50,329			\$0	\$50,329	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Sheppard Elementary
Wichita Falls ISD

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ESL Metering Contact

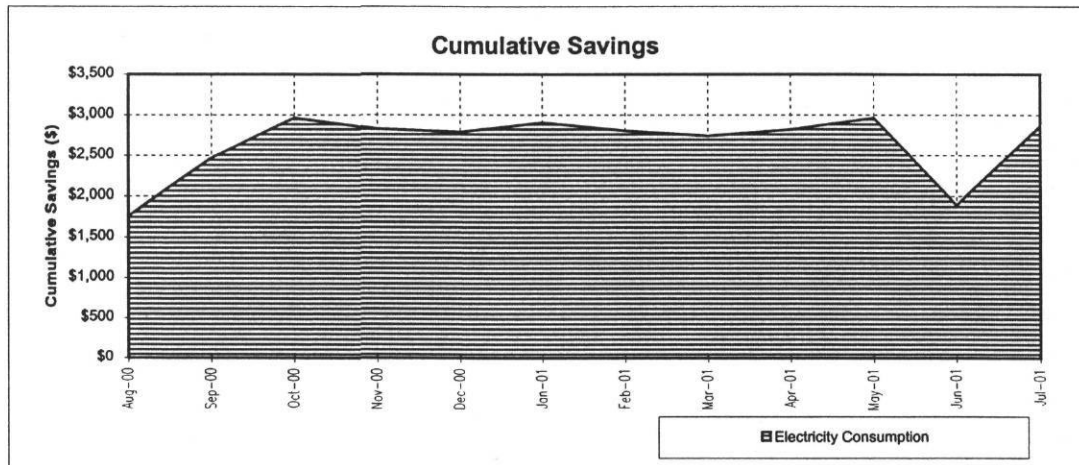
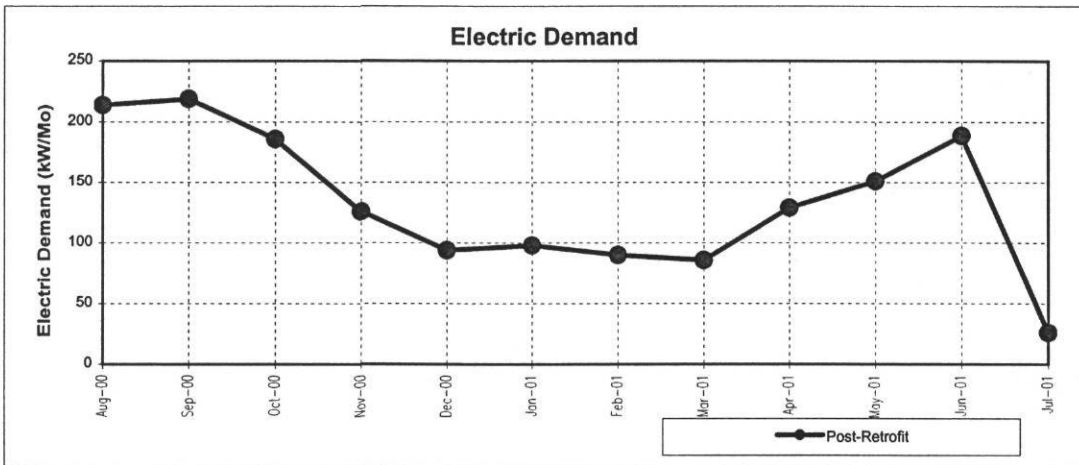
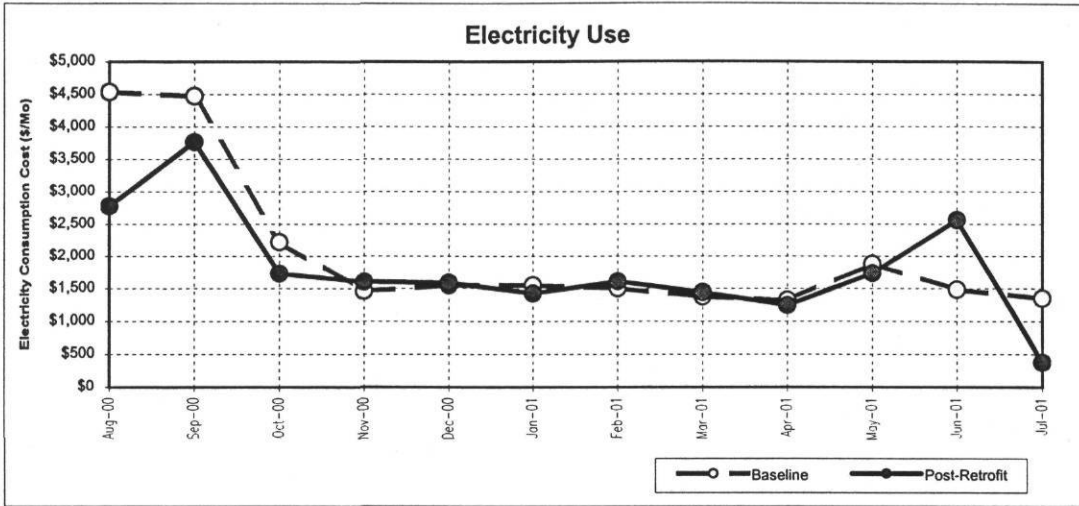
Bahman Yazdani
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(979) 845-9213

Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	34,758	\$2,777	\$1,761	214	\$0	\$0	\$1,761	\$1,761
Sep-00	47,142	\$3,767	\$707	219	\$0	\$0	\$707	\$2,469
Oct-00	21,636	\$1,729	\$495	186	\$0	\$0	\$495	\$2,964
Nov-00	20,034	\$1,601	(\$136)	126	\$0	\$0	(\$136)	\$2,827
Dec-00	19,890	\$1,589	(\$42)	94	\$0	\$0	(\$42)	\$2,785
Jan-01	17,856	\$1,427	\$120	98	\$0	\$0	\$120	\$2,905
Feb-01	20,142	\$1,609	(\$104)	90	\$0	\$0	(\$104)	\$2,801
Mar-01	18,018	\$1,440	(\$61)	86	\$0	\$0	(\$61)	\$2,740
Apr-01	15,552	\$1,243	\$79	129	\$0	\$0	\$79	\$2,818
May-01	21,726	\$1,736	\$147	151	\$0	\$0	\$147	\$2,965
Jun-01	32,040	\$2,560	(\$1,074)	189	\$0	\$0	(\$1,074)	\$1,891
Jul-01	4,752	\$380	\$971	26	\$0	\$0	\$971	\$2,862
TOTAL	273,546	\$21,856	\$2,862	1,608	\$0	\$0	\$2,862	
Audit Estimated Savings			\$2,985			\$0	\$2,985	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Wichita Falls High School
Wichita Falls ISD

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ESL Metering Contact

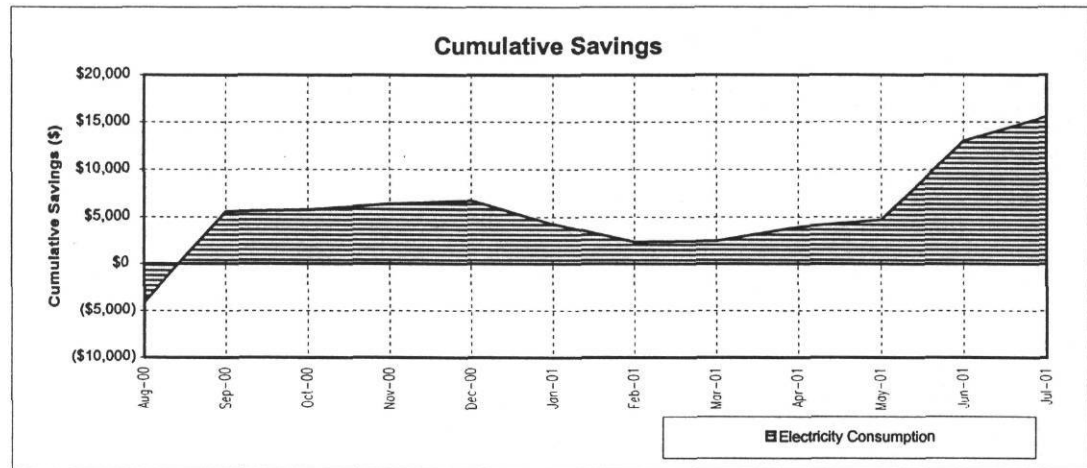
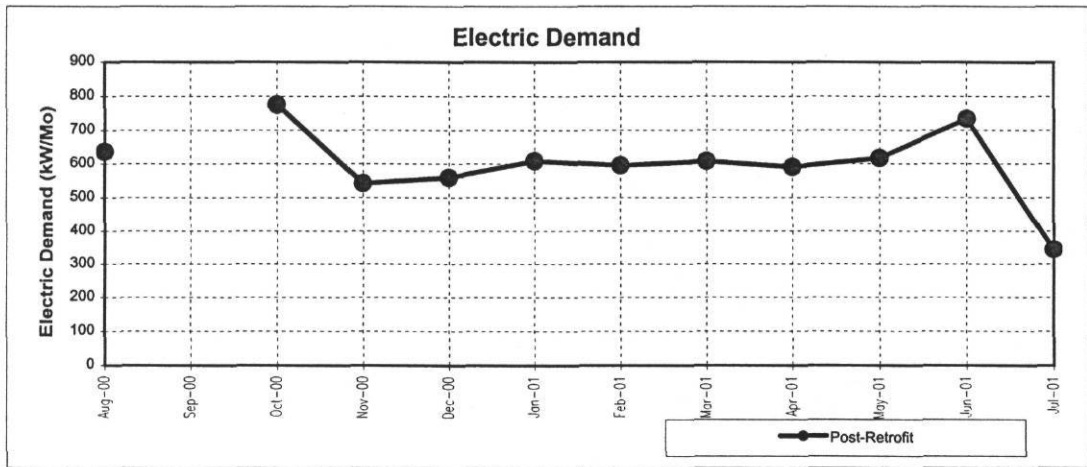
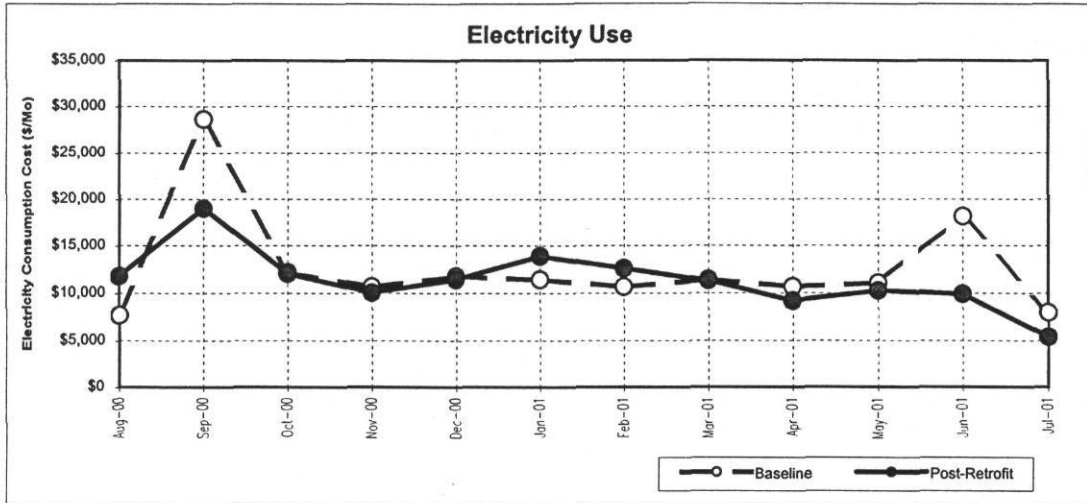
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Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	148,275	\$11,847	(\$4,092)	636	\$0	\$0	(\$4,092)	(\$4,092)
Sep-00	237,599	\$18,984	\$9,660	N.A.*	\$0	\$0	\$9,660	\$5,568
Oct-00	150,975	\$12,063	\$163	776	\$0	\$0	\$163	\$5,731
Nov-00	126,225	\$10,085	\$626	542	\$0	\$0	\$626	\$6,357
Dec-00	143,550	\$11,470	\$350	560	\$0	\$0	\$350	\$6,707
Jan-01	173,925	\$13,897	(\$2,446)	609	\$0	\$0	(\$2,446)	\$4,261
Feb-01	158,062	\$12,629	(\$1,918)	596	\$0	\$0	(\$1,918)	\$2,344
Mar-01	142,087	\$11,353	\$98	608	\$0	\$0	\$98	\$2,441
Apr-01	115,425	\$9,222	\$1,489	591	\$0	\$0	\$1,489	\$3,930
May-01	128,812	\$10,292	\$789	617	\$0	\$0	\$789	\$4,719
Jun-01	124,425	\$9,942	\$8,244	734	\$0	\$0	\$8,244	\$12,963
Jul-01	67,612	\$5,402	\$2,621	344	\$0	\$0	\$2,621	\$15,583
TOTAL	1,716,972	\$137,186	\$15,583	6,613	\$0	\$0	\$15,583	
Audit Estimated Savings			\$8,075			\$0	\$8,075	

Comments:

Unit Cost: \$0.0799/kWh
* N.A. means not applicable



Zundelowitz Jr High School
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ESL Metering Contact

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Aug-00 to Jul-01
Summary of Measured Energy Consumption and Savings

Month	Electricity Use			Electric Demand			Total	
	Use kWh	Cost \$	Savings \$	Demand kW	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	51,420	\$4,108	(\$2,588)	295	\$0	\$0	(\$2,588)	(\$2,588)
Sep-00	102,540	\$8,193	(\$3,667)	440	\$0	\$0	(\$3,667)	(\$6,256)
Oct-00	71,580	\$5,719	(\$1,804)	413	\$0	\$0	(\$1,804)	(\$8,060)
Nov-00	59,580	\$4,760	(\$914)	313	\$0	\$0	(\$914)	(\$8,974)
Dec-00	65,520	\$5,235	\$56	356	\$0	\$0	\$56	(\$8,918)
Jan-01	63,420	\$5,067	\$2,755	446	\$0	\$0	\$2,755	(\$6,163)
Feb-01	68,820	\$5,499	(\$490)	405	\$0	\$0	(\$490)	(\$6,653)
Mar-01	64,860	\$5,182	(\$726)	359	\$0	\$0	(\$726)	(\$7,379)
Apr-01	50,100	\$4,003	(\$237)	327	\$0	\$0	(\$237)	(\$7,616)
May-01	57,960	\$4,631	(\$628)	273	\$0	\$0	(\$628)	(\$8,244)
Jun-01	55,800	\$4,458	\$54	325	\$0	\$0	\$54	(\$8,189)
Jul-01	42,120	\$3,365	(\$1,793)	225	\$0	\$0	(\$1,793)	(\$9,982)
TOTAL	753,720	\$60,222	-\$9,982	4,177	\$0	\$0	-\$9,982	
Audit Estimated Savings			\$2,730			\$0	\$2,730	

Comments:

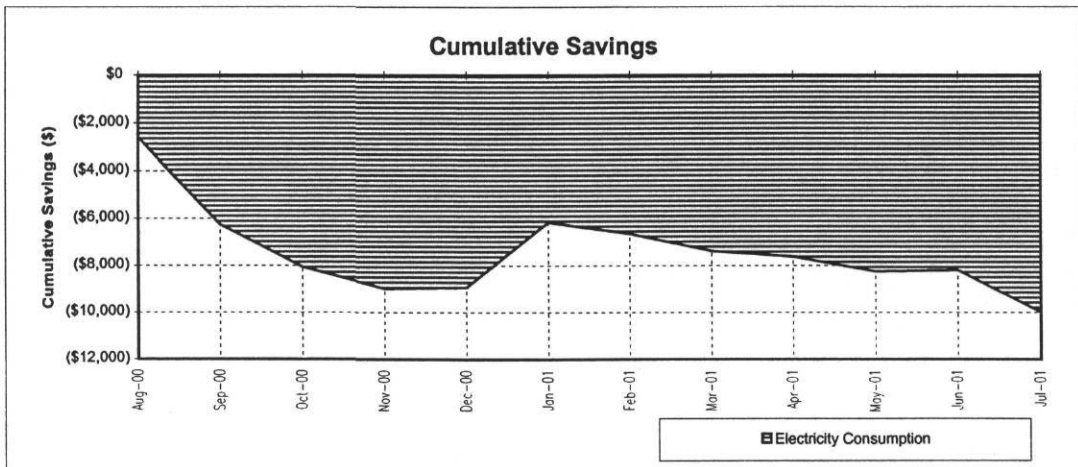
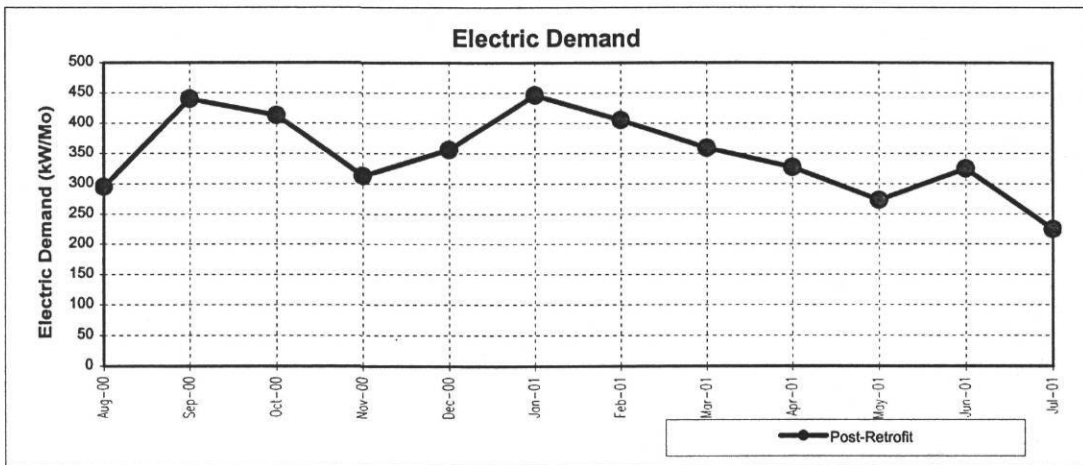
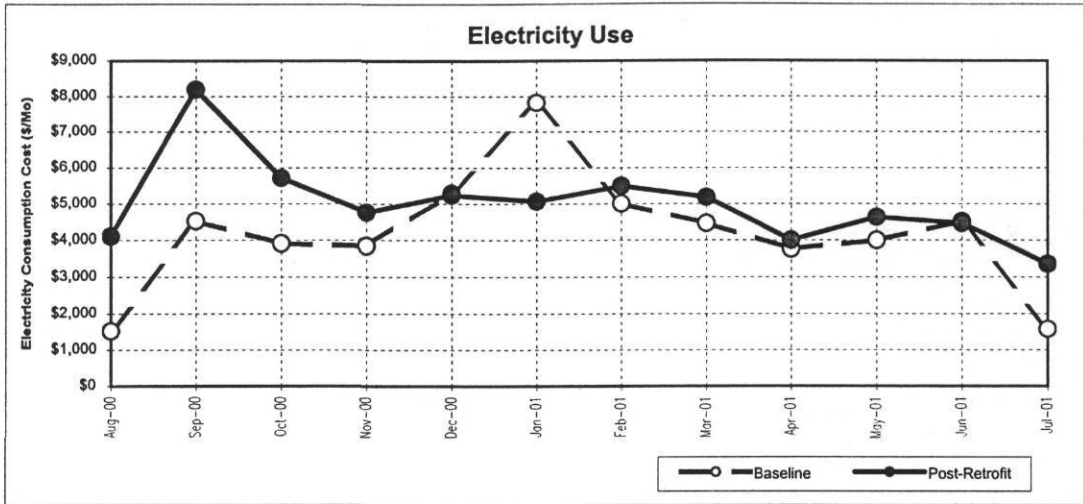
Unit Cost: \$0.0799/kWh
* N.A. means not applicable

Zundelowitz Jr High School

Energy Systems Laboratory
Texas Engineering Experiment Station

Wichita Falls ISD

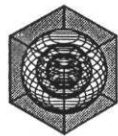
Texas A&M University
College Station, TX



Savings Reports

Gas

WICHITA FALLS INDEPENDENT SCHOOL DISTRICT



ENERGY SYSTEMS LABORATORY
Texas Engineering Experiment Station
Texas A&M University System

Barwise Jr High School

Wichita Falls ISD

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Texas A&M University

College Station, TX 77843-3581

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Aug-00 to Jul-01

Summary of Measured Energy Consumption and Savings

Month	Gas Use			Total	
	Use MCF	Cost \$	Savings \$	Monthly Savings	Cumulative Savings
Aug-00	12	\$59	\$158	\$158	\$158
Sep-00	43	\$221	\$57	\$57	\$215
Oct-00	61	\$316	(\$64)	(\$64)	\$151
Nov-00	185	\$949	(\$347)	(\$347)	(\$196)
Dec-00	382	\$1,965	\$768	\$768	\$572
Jan-01	473	\$2,432	\$1,239	\$1,239	\$1,811
Feb-01	421	\$2,164	\$301	\$301	\$2,112
Mar-01	285	\$1,463	\$574	\$574	\$2,687
Apr-01	168	\$864	(\$420)	(\$420)	\$2,267
May-01	57	\$293	(\$42)	(\$42)	\$2,225
Jun-01	47	\$241	\$46	\$46	\$2,271
Jul-01	33	\$170	\$90	\$90	\$2,361
TOTAL	2,167	\$11,137	\$2,361	\$2,361	
Audit Estimated Savings			\$5,629	\$5,629	

Comments:

Unit Cost: \$5.14/MCF

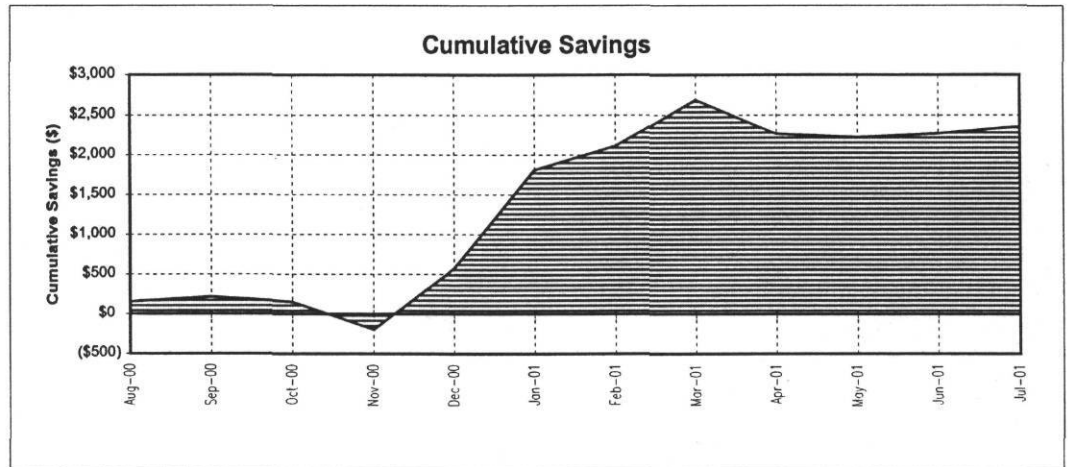
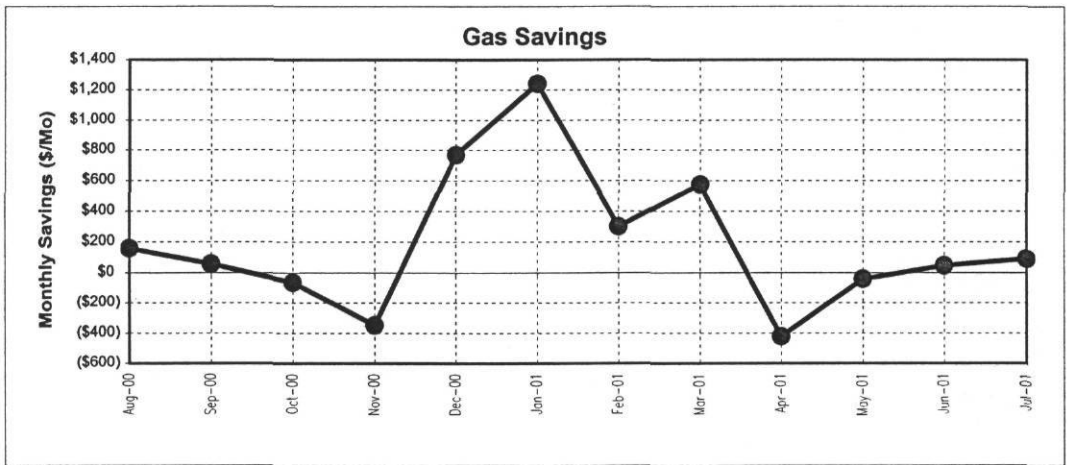
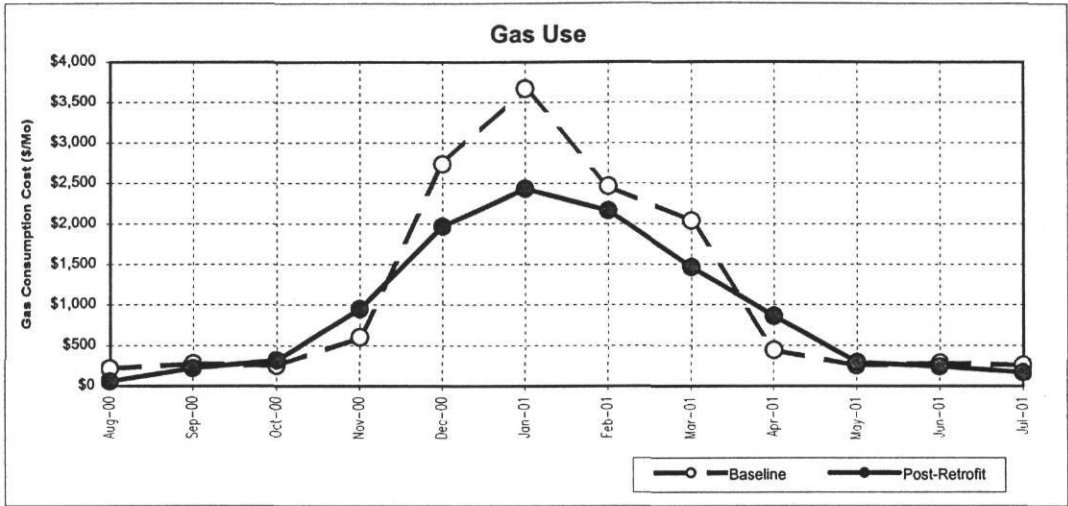
* N.A. means not applicable

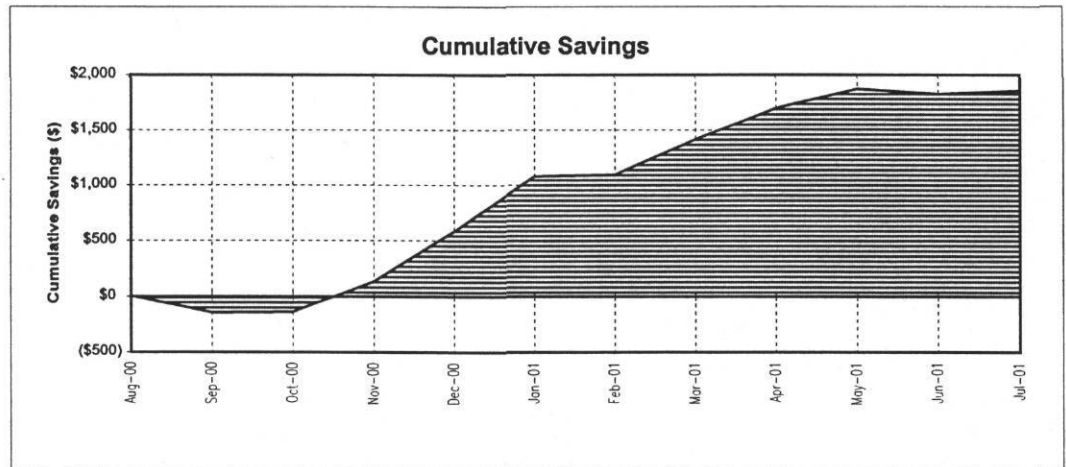
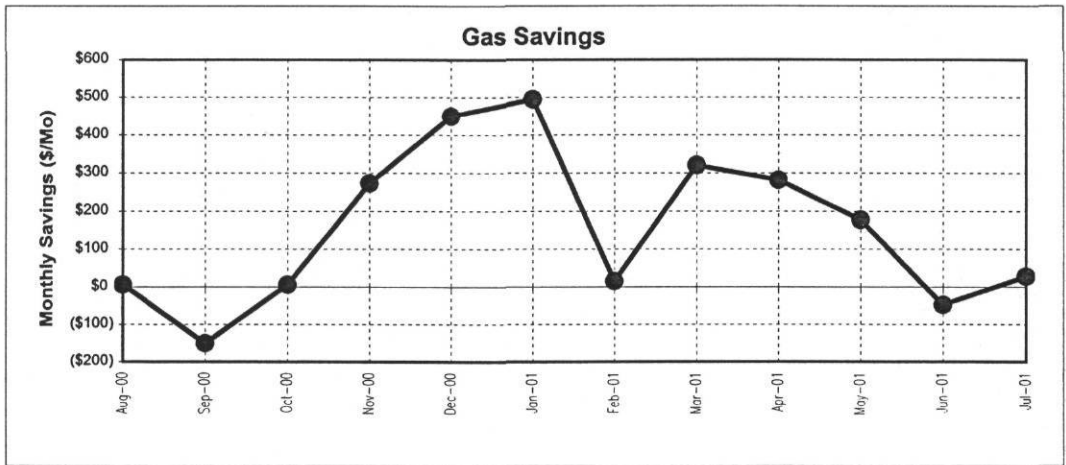
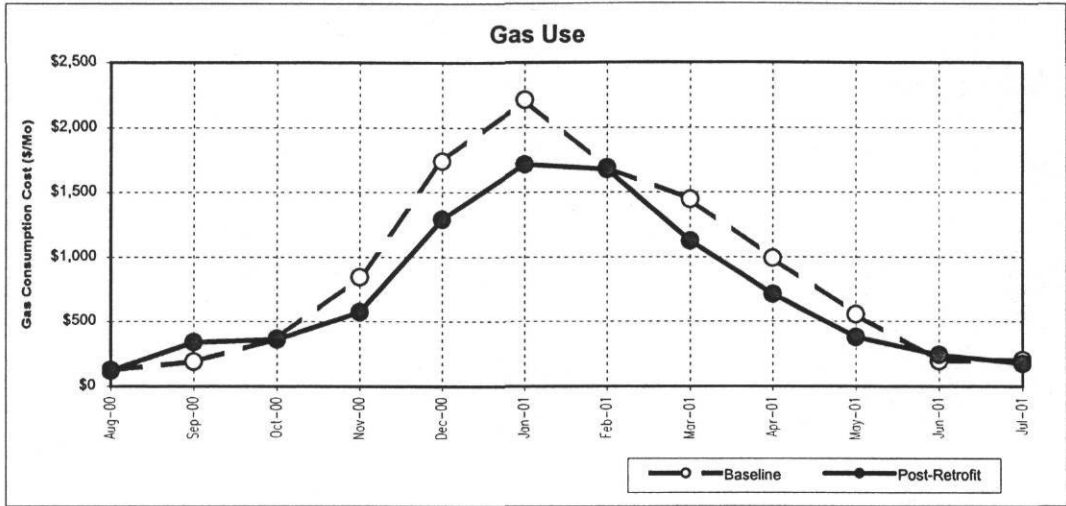
Barwise Jr High School

Energy Systems Laboratory
Texas Engineering Experiment Station

Wichita Falls Independent School District

Texas A&M University
College Station, TX

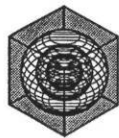




Saving Tables

Electricity

WICHITA FALLS INDEPENDENT SCHOOL DISTRICT



ENERGY SYSTEMS LABORATORY

Texas Engineering Experiment Station
Texas A&M University System

Barwise Jr High School			
Period: May 97-April 98		ELECTRICITY	
Ycp=	2145.6332	CV-RMSE=	11.3%
LS=	0.0000	R ² =	0.81
RS=	68.9100	Summer=	2401.00
Xcp=	59.6000	Model	3P-CP

Barwise Jr High School									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		
8	1	2000	32	86.5122	22,668	76,832	54,164	70.50	4,327.70
8	30	2000	29	90.5127	84,780	69,629	-15,151	-21.76	-1,210.56
9	29	2000	30	80.771	82,080	108,136	26,056	24.10	2,081.87
10	30	2000	31	67.2408	60,144	82,837	22,693	27.39	1,813.18
11	30	2000	31	48.0055	56,928	66,515	9,587	14.41	765.97
1	2	2001	33	36.0263	53,880	70,806	16,926	23.90	1,352.38
1	30	2001	28	40.1131	57,924	60,078	2,154	3.58	172.08
2	28	2001	29	45.4331	53,892	62,223	8,331	13.39	665.68
3	29	2001	29	48.5151	46,356	62,223	15,867	25.50	1,267.80
4	30	2001	32	64.6071	56,184	79,702	23,518	29.51	1,879.05
5	31	2001	31	72.8313	65,712	94,779	29,067	30.67	2,322.49
6	29	2001	29	81.0521	17,328	105,093	87,765	83.51	7,012.43
					657,876	938,853	280,977	29.93	22,450.06

Ben Milam Elementary				
Period: Jan 97- Dec 97		ELECTRICITY		
Ycp=	768.0811	CV-RMSE=	8.8%	
LS=	-81.1289	R ² =	0.91	
RS=	31.8485	Summer=	444.75	
Xcp=	52.1566	Model	4P-CP	

Ben Milam Elementary									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		
7	31	2000	32	86.3	16,020	14,232	-1,788	-12.56	-142.87
8	29	2000	29	90.3	67,650	57,484	-10,166	-17.69	-812.27
9	28	2000	30	81.5	60,750	51,057	-9,693	-18.98	-774.48
10	27	2000	29	67.2	38,640	36,179	-2,461	-6.80	-196.65
11	29	2000	33	49.9	40,770	31,338	-9,432	-30.10	-753.59
12	29	2000	30	37.3	37,440	59,244	21,804	36.80	1,742.12
1	29	2001	31	38.7	51,930	57,761	5,831	10.10	465.93
2	27	2001	29	45.3	42,990	38,492	-4,498	-11.68	-359.35
3	28	2001	29	48.6	32,220	30,645	-1,575	-5.14	-125.80
4	27	2001	30	63.8	34,500	34,144	-356	-1.04	-28.46
5	30	2001	33	72.0	45,090	46,175	1,085	2.35	86.71
6	28	2001	29	81.0	11,190	12,898	1,708	13.24	136.44
					479,190	469,650	-9,540	-2.03	-762.26

Bonham Elementary				
Period: Jan 97- Dec 97		ELECTRICITY		
Ycp=	431.3973	CV-RMSE=	10.4%	
LS=	-21.4551	R ² =	0.91	
RS=	25.8244	Summer=	463.08	
Xcp=	54.7162	Model	4P-CP	

Bonham Elementary									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		
8	7	2000	31	88.2	26,556	40,205	13,649	33.95	1,090.53
9	6	2000	30	91.1	45,696	41,151	-4,545	-11.04	-363.14
10	5	2000	29	77.5	31,908	29,591	-2,317	-7.83	-185.12
11	3	2000	29	64.8	18,216	20,033	1,817	9.07	145.16
12	5	2000	32	44.5	19,824	20,795	971	4.67	77.55
1	6	2001	32	35.6	18,624	26,942	8,318	30.87	664.62
2	5	2001	30	41.0	21,660	21,768	108	0.49	8.61
3	6	2001	29	45.4	17,136	18,329	1,193	6.51	95.33
4	4	2001	29	51.9	17,472	14,288	-3,184	-22.28	-254.38
5	4	2001	30	66.7	19,572	22,260	2,688	12.07	214.75
6	6	2001	33	74.1	29,376	15,282	-14,094	-92.23	-1,126.14
7	6	2001	30	82.1	10,884	13,892	3,008	21.65	240.37
					276,924	284,535	7,611	2.67	608.13

Brook Elementary			
Period: Jan 97- Dec 97		ELECTRICITY	
Ycp=	533.9010	CV-RMSE=	10.9%
LS=	0.0000	R ² =	0.89
RS=	31.7505	Summer=	574.23
Xcp=	65.3842	Model	4P-CP

Brook Elementary									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		
8	9	2000	29	88.6	15,408	36,841	21,433	58.18	1,712.49
9	8	2000	30	90.5	26,940	39,927	12,987	32.53	1,037.68
10	9	2000	31	74.3	20,172	25,284	5,112	20.22	408.47
11	7	2000	29	64.9	14,760	15,483	723	4.67	57.78
12	7	2000	30	42.6	14,748	16,017	1,269	7.92	101.40
1	9	2001	33	36.0	12,216	17,619	5,403	30.66	431.68
2	7	2001	29	41.4	16,140	15,483	-657	-4.24	-52.48
3	8	2001	29	45.6	14,628	15,483	855	5.52	68.32
4	6	2001	29	53.0	11,976	15,483	3,507	22.65	280.22
5	8	2001	32	66.8	16,692	18,497	1,805	9.76	144.21
6	8	2001	31	75.1	20,712	17,801	-2,911	-16.35	-232.59
7	10	2001	32	83.3	6,696	18,375	11,679	63.56	933.17
					191,088	252,294	61,206	24.26	4,890.34

Burgess Elementary School				
Period: April 97-March 98		ELECTRICITY		
Ycp=	844.9176	CV-RMSE=	17.6%	
LS=	0.0000	R ² =	0.79	
RS=	34.8103	Summer=	752.00	
Xcp=	58.2180	Model	3P-CP	

Burgess Elementary School									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		
8	15	2000	29	88.8	61,812	55,327	-6,485	-11.72	-518.19
9	14	2000	30	89.5	74,880	57,964	-16,916	-29.18	-1,351.61
10	13	2000	29	69.9	35,604	36,310	706	1.94	56.43
11	13	2000	31	61.0	36,648	29,166	-7,482	-25.65	-597.80
12	13	2000	30	42.2	29,340	25,348	-3,992	-15.75	-319.00
1	15	2001	33	36.6	26,388	27,882	1,494	5.36	119.39
2	13	2001	29	42.0	32,904	24,503	-8,401	-34.29	-671.27
3	14	2001	29	47.1	30,204	24,503	-5,701	-23.27	-455.54
4	12	2001	29	56.7	28,692	24,503	-4,189	-17.10	-334.73
5	14	2001	32	67.0	41,868	36,851	-5,017	-13.62	-400.88
6	14	2001	31	77.3	52,560	23,312	-29,248	-125.46	-2,336.92
7	16	2001	32	84.5	37,728	24,064	-13,664	-56.78	-1,091.75
					488,628	389,731	-98,897	-25.38	-7,901.86

Carrigan Center			
Period: May 97-April 98		ELECTRICITY	
Ycp=	1209.6109	CV-RMSE=	5.2%
LS=	0.0000	R ² =	0.97
RS=	40.6732	Summer=	1890.00
Xcp=	53.6260	Model	3P-CP

Carrigan Center									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	\$0.0799
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		USD
8	9	2000	29	88.6	47,835	54,810	6,975	12.73	557.30
9	8	2000	30	90.5	55,710	81,265	25,555	31.45	2,041.86
10	9	2000	31	74.3	56,880	63,511	6,631	10.44	529.82
11	7	2000	29	64.9	37,440	48,376	10,936	22.61	873.80
12	7	2000	30	42.6	33,480	36,288	2,808	7.74	224.39
1	9	2001	33	36.0	30,330	39,917	9,587	24.02	766.01
2	7	2001	29	41.4	33,795	35,079	1,284	3.66	102.57
3	8	2001	29	45.6	32,293	35,079	2,786	7.94	222.58
4	6	2001	29	53.0	30,443	35,079	4,636	13.22	370.39
5	8	2001	32	66.8	39,989	55,820	15,831	28.36	1,264.91
6	8	2001	31	75.1	43,475	64,600	21,125	32.70	1,687.91
7	10	2001	32	83.3	38,478	60,480	22,002	36.38	1,757.96
					480,148	610,304	130,156	21.33	10,399.50

Denver Center			
Period: Jan 97- Dec 97		ELECTRICITY	
Ycp=	155.2731	CV-RMSE=	11.5%
LS=	-5.5386	R ² =	0.87
RS=	6.5088	Summer=	NA
Xcp=	54.1454	Model	4P-CP

Denver Center									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	\$0.0799
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		USD
8	10	2000	29	88.5	5,952	10,980	5,028	45.79	401.70
9	11	2000	32	90.1	8,331	12,457	4,126	33.12	329.67
10	10	2000	29	72.1	7,029	7,901	872	11.04	69.66
11	8	2000	29	64.7	5,058	6,490	1,432	22.07	114.45
12	8	2000	30	42.9	4,887	6,534	1,647	25.21	131.62
1	10	2001	33	35.9	6,012	8,462	2,450	28.96	195.79
2	8	2001	29	41.8	6,444	6,487	43	0.67	3.45
3	9	2001	29	45.4	5,904	5,915	11	0.18	0.85
4	9	2001	31	54.9	4,275	4,974	699	14.05	55.82
5	9	2001	30	66.3	5,310	7,041	1,731	24.58	138.28
6	11	2001	33	75.8	5,841	9,782	3,941	40.29	314.88
7	11	2001	30	83.9	2,835	10,463	7,628	72.90	609.47
					67,878	97,486	29,608	30.37	2,365.65

Fannin Elementary				
Period: Jan 97- Dec 97		ELECTRICITY		
Ycp=	513.4447	CV-RMSE=	11.6%	
LS=	-31.8701	R ² =	0.85	
RS=	24.3066	Summer=	725.42	
Xcp=	54.1496	Model	4P-CP	

Fannin Elementary									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		
8	10	2000	29	88.5	31,020	39,074	8,054	20.61	643.48
9	11	2000	32	90.1	47,910	44,392	-3,518	-7.93	-281.12
10	10	2000	29	72.1	27,180	27,576	396	1.44	31.67
11	8	2000	29	64.7	17,730	22,309	4,579	20.52	365.85
12	8	2000	30	42.9	24,720	26,203	1,483	5.66	118.48
1	10	2001	33	35.9	27,960	36,158	8,198	22.67	655.01
2	8	2001	29	41.8	25,980	26,312	332	1.26	26.49
3	9	2001	29	45.4	22,920	23,017	97	0.42	7.78
4	9	2001	31	54.9	18,120	16,512	-1,608	-9.74	-128.49
5	9	2001	30	66.3	22,110	24,297	2,187	9.00	174.76
6	11	2001	33	75.8	25,800	23,939	-1,861	-7.77	-148.70
7	11	2001	30	83.9	10,770	21,763	10,993	50.51	878.32
					302,220	331,551	29,331	8.85	2,343.52

Harrell Center			
Period: Jan 97- Dec 97		ELECTRICITY	
Ycp=	418.5539	CV-RMSE=	11.2%
LS=	-50.4020	R ² =	0.89
RS=	25.7586	Summer=	852.46
Xcp=	53.7343	Model	4P-CP

Harrell Center									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		
8	10	2000	29	88.5	23,550	38,077	14,527	38.15	1,160.67
9	11	2000	32	90.1	40,170	43,368	3,198	7.37	255.50
10	10	2000	29	72.1	24,630	25,893	1,263	4.88	100.89
11	8	2000	29	64.7	16,470	20,310	3,840	18.91	306.85
12	8	2000	30	42.9	24,570	29,008	4,438	15.30	354.58
1	10	2001	33	35.9	32,610	43,508	10,898	25.05	870.78
2	8	2001	29	41.8	31,050	29,594	-1,456	-4.92	-116.33
3	9	2001	29	45.4	25,800	24,384	-1,416	-5.81	-113.11
4	9	2001	31	54.9	17,340	13,937	-3,403	-24.41	-271.87
5	9	2001	30	66.3	15,690	22,303	6,613	29.65	528.36
6	11	2001	33	75.8	21,960	28,131	6,171	21.94	493.08
7	11	2001	30	83.9	9,180	25,574	16,394	64.10	1,309.87
					283,020	344,087	61,067	17.75	4,879.28

Haynes Elementary			
Period: Jan 97- Dec 97		ELECTRICITY	
Ycp=	707.3133	CV-RMSE=	8.8%
LS=	-20.5940	R ² =	0.85
RS=	39.6566	Summer=	768.89
Xcp=	62.3186	Model	4P-CP

Haynes Elementary									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		\$0.0799	
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh	%	USD
8	14	2000	31	89.0	41,520	23,836	-17,684	-74.19	-1,412.99
9	13	2000	30	89.7	50,700	53,783	3,083	5.73	246.31
10	12	2000	29	70.2	27,240	29,550	2,310	7.82	184.54
11	10	2000	29	63.1	26,370	21,436	-4,934	-23.02	-394.26
12	12	2000	32	43.0	33,120	35,363	2,243	6.34	179.24
1	12	2001	31	35.4	37,170	39,094	1,924	4.92	153.72
2	12	2001	31	42.0	39,150	34,913	-4,237	-12.14	-338.54
3	13	2001	29	46.8	33,030	29,753	-3,277	-11.01	-261.85
4	11	2001	29	56.4	22,590	24,038	1,448	6.02	115.66
5	11	2001	30	66.4	26,580	26,108	-472	-1.81	-37.73
6	13	2001	33	76.5	34,650	25,373	-9,277	-36.56	-741.21
7	13	2001	30	84.3	10,560	23,067	12,507	54.22	999.28
					382,680	366,312	-16,368	-4.47	-1,307.81

Holland Center			
Period: Jan 97- Dec 97		ELECTRICITY	
Ycp=	199.2687	CV-RMSE=	13.1%
LS=	-5.2347	R ² =	0.53
RS=	1.6140	Summer=	146.11
Xcp=	55.8667	Model	4P-CP

Holland Center									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		\$0.0799	
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh	%	USD
8	7	2000	31	88.2	4,938	4,529	-409	-9.02	-32.65
9	6	2000	30	91.1	10,782	7,685	-3,097	-40.29	-247.42
10	5	2000	29	77.5	7,608	6,792	-816	-12.01	-65.16
11	3	2000	29	64.8	5,562	6,195	633	10.22	50.58
12	5	2000	32	44.5	8,256	8,275	19	0.23	1.50
1	6	2001	32	35.6	9,330	9,775	445	4.55	35.53
2	5	2001	30	41.0	9,276	8,312	-964	-11.60	-77.02
3	6	2001	29	45.4	8,706	7,373	-1,333	-18.08	-106.50
4	4	2001	29	51.9	6,720	6,387	-333	-5.21	-26.59
5	4	2001	30	66.7	6,084	6,505	421	6.47	33.61
6	6	2001	33	74.1	6,822	7,547	725	9.61	57.96
7	6	2001	30	82.1	3,330	4,383	1,053	24.03	84.16
					87,414	83,760	-3,654	-4.36	-291.99

Houston Elementary				
Period: Jan 97- Dec 97			ELECTRICITY	
Ycp=	551.3084	CV-RMSE=	9.4%	
LS=	-37.0101	R ² =	0.84	
RS=	16.9462	Summer=	413.33	
Xcp=	53.6468	Model	4P-CP	

Houston Elementary									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		
8	18	2000	30	88.7	26,640	34,346	7,706	22.44	615.70
9	19	2000	32	87.8	39,420	36,147	-3,273	-9.06	-261.55
10	18	2000	29	68.3	24,615	23,174	-1,441	-6.22	-115.15
11	16	2000	29	57.6	24,750	17,912	-6,838	-38.18	-546.36
12	16	2000	30	41.5	28,755	29,996	1,241	4.14	99.19
1	18	2001	33	36.9	29,340	38,607	9,267	24.00	740.40
2	16	2001	29	42.9	28,080	27,508	-572	-2.08	-45.72
3	19	2001	31	47.3	22,905	24,355	1,450	5.95	115.87
4	18	2001	30	58.9	24,075	19,222	-4,853	-25.25	-387.78
5	17	2001	29	69.5	25,155	23,780	-1,375	-5.78	-109.84
6	19	2001	33	77.7	15,660	13,640	-2,020	-14.81	-161.39
7	19	2001	30	86.0	7,875	12,400	4,525	36.49	361.55
					297,270	301,086	3,816	1.27	304.91

Jefferson Elementary			
Period: Jan 97- Dec 97		ELECTRICITY	
Ycp=	870.3784	CV-RMSE=	13.1%
LS=	-62.7496	R ² =	0.7
RS=	19.3176	Summer=	385.57
Xcp=	52.3287	Model	4P-CP

Jefferson Elementary									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		\$0.0799	
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh	%	USD
7	28	2000	30	86.1	8,064	11,567	3,503	30.29	279.90
8	28	2000	31	89.6	50,796	49,327	-1,469	-2.98	-117.36
9	27	2000	30	82.4	50,544	43,555	-6,989	-16.05	-558.40
10	26	2000	29	67.1	29,952	33,533	3,581	10.68	286.09
11	28	2000	33	50.5	34,416	32,448	-1,968	-6.07	-157.25
12	28	2000	30	37.8	36,684	53,380	16,696	31.28	1,334.05
1	26	2001	29	38.2	47,196	50,982	3,786	7.43	302.50
2	26	2001	31	44.5	39,060	42,183	3,123	7.40	249.52
3	27	2001	29	49.1	28,332	31,099	2,767	8.90	221.11
4	26	2001	30	62.8	27,288	32,205	4,917	15.27	392.84
5	29	2001	33	71.7	36,648	41,086	4,438	10.80	354.59
6	27	2001	29	80.6	9,360	11,182	1,822	16.29	145.54
					398,340	432,547	34,207	7.91	2,733.13

Kirby Jr High School			
Period: April 97-March 98		ELECTRICITY	
Ycp=	4029.7300	CV-RMSE=	5.1%
LS=	0.0000	R ² =	0.82
RS=	42.0339	Summer=	2794.97
Xcp=	52.2000	Model	3P-CP

Kirby Jr High School									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	\$0.0799
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		USD
8	15	2000	29	88.8	101,250	161,418	60,168	37.27	4,807.45
9	14	2000	30	89.5	130,860	167,865	37,005	22.04	2,956.72
10	13	2000	29	69.9	101,970	138,456	36,486	26.35	2,915.22
11	13	2000	31	61.0	84,420	136,354	51,934	38.09	4,149.55
12	13	2000	30	42.2	107,190	120,892	13,702	11.33	1,094.78
1	15	2001	33	36.6	104,130	132,981	28,851	21.70	2,305.20
2	13	2001	29	42.0	52,110	116,862	64,752	55.41	5,173.70
3	14	2001	29	47.1	82,170	116,862	34,692	29.69	2,771.90
4	12	2001	29	56.7	82,171	122,346	40,175	32.84	3,209.96
5	14	2001	32	67.0	82,172	148,896	66,724	44.81	5,331.23
6	14	2001	31	77.3	82,173	86,644	4,471	5.16	357.24
7	16	2001	32	84.5	82,174	89,439	7,265	8.12	580.48
					1,092,790	1,539,016	446,226	28.99	35,653.43

Lamar Elementary			
Period: Jan 97- Dec 97		ELECTRICITY	
Ycp=	644.9219	CV-RMSE=	9.8%
LS=	0.0000	R ² =	0.88
RS=	19.4404	Summer=	373.63
Xcp=	58.2828	Model	4P-CP

Lamar Elementary									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		
8	7	2000	31	88.2	15,960	11,582	-4,378	-37.80	-349.77
9	6	2000	30	91.1	38,220	38,503	283	0.74	22.63
10	5	2000	29	77.5	38,280	29,550	-8,730	-29.54	-697.52
11	2	2000	28	64.9	24,210	21,668	-2,542	-11.73	-203.08
12	5	2000	33	45.0	23,070	21,282	-1,788	-8.40	-142.83
1	6	2001	32	35.6	18,840	20,638	1,798	8.71	143.62
2	5	2001	30	41.0	22,800	19,348	-3,452	-17.84	-275.84
3	6	2001	29	45.4	21,520	18,703	-2,817	-15.06	-225.10
4	4	2001	29	51.9	18,691	18,703	12	0.06	0.94
5	4	2001	30	66.7	22,010	24,282	2,272	9.36	181.53
6	6	2001	33	74.1	24,146	31,435	7,289	23.19	582.40
7	6	2001	30	82.1	7,485	11,209	3,724	33.22	297.53
					275,232	266,903	-8,329	-3.12	-665.50

McGaha Elementary				
Period: Jan 97- Dec 97		ELECTRICITY		
Ycp=	332.2115	CV-RMSE=	12.2%	
LS=	-39.1255	R ² =	0.87	
RS=	20.5467	Summer=	393.44	
Xcp=	52.8804	Model	4P-CP	

McGaha Elementary										
					Measured	Predicted	Savings	\$/kWh		
					Total Cons	Total Cons		\$0.0799		
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh	%		USD
8	9	2000	29	88.6	23,184	11,410	-11,774	-103.19		-940.75
9	8	2000	30	90.5	39,048	33,147	-5,901	-17.80		-471.52
10	9	2000	31	74.3	25,632	23,914	-1,718	-7.18		-137.24
11	7	2000	29	64.9	16,488	16,796	308	1.83		24.59
12	7	2000	30	42.6	23,304	22,006	-1,298	-5.90		-103.74
1	9	2001	33	36.0	27,600	32,765	5,165	15.76		412.66
2	7	2001	29	41.4	28,536	22,680	-5,856	-25.82		-467.86
3	8	2001	29	45.6	24,312	17,873	-6,439	-36.03		-514.51
4	6	2001	29	53.0	16,080	9,680	-6,400	-66.12		-511.39
5	8	2001	32	66.8	18,408	19,766	1,358	6.87		108.48
6	8	2001	31	75.1	25,848	24,465	-1,383	-5.65		-110.53
7	10	2001	32	83.3	9,432	12,590	3,158	25.08		252.34
					277,872	247,090	-30,782	-12.46		-2,459.46

Mc Neil Jr High School		
Period: April 97-March 98		ELECTRICITY
Ycp=	302.7489	CV-RMSE= 6.0%
LS=	0.0000	R ² = 0.94
RS=	66.4759	Summer= 1838.47
Xcp=	0.0000	Model SLR

Mc Neil Jr High School									
					Measured	Predicted	Savings	\$/kWh	
Month No.	Day	Year	Days/Mo	Tdb [°F]	Total Cons kWh	Total Cons kWh	kWh	%	USD
7	28	2000	30	86.1	48,960	55,154	6,194	11.23	494.91
8	28	2000	31	89.6	123,390	56,993	-66,397	-116.50	-5,305.15
9	27	2000	30	82.4	123,570	173,469	49,899	28.77	3,986.91
10	26	2000	29	67.1	92,610	138,192	45,582	32.98	3,642.04
11	28	2000	33	50.5	88,110	120,838	32,728	27.08	2,614.95
12	28	2000	30	37.8	63,450	84,552	21,102	24.96	1,686.04
1	26	2001	29	38.2	39,150	82,389	43,239	52.48	3,454.83
2	26	2001	31	44.5	80,198	101,118	20,920	20.69	1,671.50
3	27	2001	29	49.1	69,235	103,453	34,218	33.08	2,734.00
5	29	2001	63	67.5	105,572	301,723	196,151	65.01	15,672.45
6	27	2001	29	80.6	40,293	164,205	123,912	75.46	9,900.53
					874,538	1,382,085	507,547	36.72	40,553.00

Sheppard Elementary

Period: Jan 97- Dec 97		ELECTRICITY	
Ycp=	557.0853	CV-RMSE=	10.7%
LS=	-2.5861	R ² =	0.95
RS=	46.4683	Summer=	563.41
Xcp=	61.5110	Model	4P-CP

Sheppard Elementary

					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		
8	14	2000	31	89.0	34,758	56,800	22,042	38.81	1,761.15
9	13	2000	30	89.7	47,142	55,995	8,853	15.81	707.35
10	12	2000	29	70.2	21,636	27,834	6,198	22.27	495.20
11	10	2000	29	63.1	20,034	18,326	-1,708	-9.32	-136.47
12	12	2000	32	43.0	19,890	19,358	-532	-2.75	-42.48
1	12	2001	31	35.4	17,856	19,361	1,505	7.77	120.22
2	12	2001	31	42.0	20,142	18,836	-1,306	-6.94	-104.38
3	13	2001	29	46.8	18,018	17,255	-763	-4.42	-60.94
4	11	2001	29	56.4	15,552	16,538	986	5.96	78.75
5	11	2001	30	66.4	21,726	23,566	1,840	7.81	147.06
6	13	2001	33	76.5	32,040	18,592	-13,448	-72.33	-1,074.46
7	13	2001	30	84.3	4,752	16,902	12,150	71.89	970.80
					273,546	309,363	35,817	11.58	2,861.81

Wichita Falls High School				
Period: May 97-April 98		ELECTRICITY		
Ycp=	4622.8482	CV-RMSE=	14.1%	
LS=	0.0000	R ² =	0.81	
RS=	311.0708	Summer=	3347.00	
Xcp=	68.8596	Model	3P-CP	

Wichita Falls High School										
					Measured	Predicted	Savings	\$/kWh		
					Total Cons	Total Cons		\$0.0799		
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh	%	USD	
8	11	2000	29	88.6	148,275	97,063	-51,212	-52.76	-4,091.84	
9	12	2000	32	90.0	237,599	358,502	120,903	33.72	9,660.16	
10	11	2000	29	71.0	150,975	153,014	2,039	1.33	162.89	
11	9	2000	29	64.0	126,225	134,063	7,838	5.85	626.22	
12	11	2000	32	43.4	143,550	147,931	4,381	2.96	350.05	
1	11	2001	31	35.1	173,925	143,308	-30,617	-21.36	-2,446.27	
2	9	2001	29	42.7	158,062	134,063	-23,999	-17.90	-1,917.55	
3	12	2001	31	45.4	142,087	143,308	1,221	0.85	97.58	
4	10	2001	29	55.7	115,425	134,063	18,638	13.90	1,489.14	
5	10	2001	30	66.4	128,812	138,685	9,873	7.12	788.89	
6	12	2001	33	76.2	124,425	227,598	103,173	45.33	8,243.56	
7	12	2001	30	84.1	67,612	100,410	32,798	32.66	2,620.56	
					1,716,972	1,912,008	195,036	10.20	15,583.40	

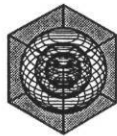
Zundelowitz Jr High School			
Period: Jan 97- Dec 97		ELECTRICITY	
Ycp=	1588.6326	CV-RMSE=	15.6%
LS=	-131.0814	R ² =	0.59
RS=	4.2216	Summer=	656.06
Xcp=	47.0471	Model	4P-CP

Zundelowitz Jr High School									
					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	\$0.0799
Month No.	Day	Year	Days/Mo	Tdb [°F]	kWh	kWh	kWh		USD
8	11	2000	29	88.6	51,420	19,026	-32,394	-170.26	-2,588.29
9	12	2000	32	90.0	102,540	56,641	-45,899	-81.04	-3,667.36
10	11	2000	29	71.0	71,580	48,998	-22,582	-46.09	-1,804.30
11	9	2000	29	64.0	59,580	48,143	-11,437	-23.76	-913.82
12	11	2000	32	43.4	65,520	66,219	699	1.06	55.84
1	11	2001	31	35.1	63,420	97,898	34,478	35.22	2,754.77
2	9	2001	29	42.7	68,820	62,689	-6,131	-9.78	-489.85
3	12	2001	31	45.4	64,860	55,775	-9,085	-16.29	-725.87
4	10	2001	29	55.7	50,100	47,134	-2,966	-6.29	-236.98
5	10	2001	30	66.4	57,960	50,104	-7,856	-15.68	-627.69
6	12	2001	33	76.2	55,800	56,482	682	1.21	54.50
7	12	2001	30	84.1	42,120	19,682	-22,438	-114.00	-1,792.80
					753,720	628,790	-124,930	-19.87	-9,981.87

Saving Tables

Gas

WICHITA FALLS INDEPENDENT SCHOOL DISTRICT



ENERGY SYSTEMS LABORATORY

Texas Engineering Experiment Station
Texas A&M University System

Barwise School Jr. High School			
Period: Apr 97- Mar 98		GAS	
Ycp=	1.6885	CV-RMSE=	9.3%
LS=	-0.8532	R ² =	0.99
RS=	0.0000	Summer=	0.00
Xcp=	60.3200	Model	3P-CP

Barwise School Jr. High School										
					Measured	Predicted	Savings	\$/kWh		
					Total Cons	Total Cons		\$5.1400		
Month No.	Day	Year	Days/Mo	Tdb [°F]	MCF	MCF	MCF	%	USD	
8	18	2000	25	88.9	12	42	31	72.76	\$158	
9	19	2000	32	87.8	43	54	11	20.42	\$57	
10	18	2000	29	68.3	61	49	-12	-25.39	(\$64)	
11	16	2000	29	57.6	185	117	-67	-57.58	(\$347)	
12	16	2000	30	41.5	382	532	149	28.12	\$768	
1	18	2001	33	36.9	473	714	241	33.74	\$1,239	
2	16	2001	29	42.9	421	480	59	12.23	\$301	
3	19	2001	31	47.3	285	396	112	28.19	\$574	
4	18	2001	30	58.9	168	86	-82	-94.54	(\$420)	
5	17	2001	29	69.5	57	49	-8	-16.61	(\$42)	
6	19	2001	33	77.7	47	56	9	16.01	\$46	
7	19	2001	30	86.0	33	51	18	34.66	\$90	
					2,167	2,626	459	17.49	\$2,361	

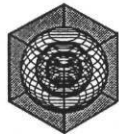
Mc Neil Jr High School			
Period: Apr 97- Mar 98		GAS	
Ycp=	1.2293	CV-RMSE=	11.6%
LS=	-0.3182	R ² =	0.98
RS=	0.0000	Summer=	0.00
Xcp=	73.7600	Model	3P-CP

Mc Neil Jr High School					Measured	Predicted	Savings	\$/kWh	
					Total Cons	Total Cons		%	USD
Month No.	Day	Year	Days/Mo	Tdb [°F]	MCF	MCF	MCF		\$5.1400
8	15	2000	20	89.0	24	25	1	4.42	\$6
9	14	2000	30	89.5	66	37	-29	-78.96	(\$150)
10	13	2000	29	69.9	70	71	1	1.60	\$6
11	13	2000	31	61.0	111	164	53	32.41	\$274
12	13	2000	30	42.2	251	339	88	25.87	\$450
1	15	2001	33	36.6	334	430	96	22.39	\$495
2	13	2001	29	42.0	326	329	3	0.87	\$15
3	14	2001	29	47.1	219	281	62	22.16	\$320
4	12	2001	29	56.7	138	193	55	28.38	\$282
5	14	2001	32	67.0	73	108	34	31.97	\$177
6	14	2001	31	77.3	47	38	-9	-24.12	(\$47)
7	16	2001	32	84.5	34	39	5	13.57	\$27
					1,694	2,054	361	17.57	\$1,855

Baseline Modeling

Whole Building Electric Consumption

WICHITA FALLS INDEPENDENT SCHOOL DISTRICT



ENERGY SYSTEMS LABORATORY

Texas Engineering Experiment Station

Texas A&M University System

Electricity Usage Regression Models for Wichita Falls ISD

WICHITA FALLS ISD	SCHOOL YEAR MODEL										SUMMER MEAN AVERAGE MODEL		
	School Name	Energy	Type	Energy Change Point (Ycp)	Left Slope (LS)	Right Slope (RS)	Temperature Change Point (Xcp)	Coefficient Determination (R ²)	CV-RMSE (%)	Variable	Baseline Period	Start Date	End Date
Barwise Jr High School	Wbele	3P-CP	2145.63	0.0000	68.9100	59.60	0.81	11.3%	Tdb [°F]	May 97-April 98	Jul-97	Aug-97	2401.000
Ben Milam Elementary	Wbele	4P-CP	768.08	-81.1289	31.8485	52.16	0.91	8.8%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Jul-97	444.747
Bonham Elementary	Wbele	4P-CP	431.40	-21.4551	25.8244	54.72	0.91	10.4%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Jul-97	463.078
Burgess Elementary School	Wbele	3P-CP	844.92	0.0000	34.8103	58.22	0.79	17.6%	Tdb [°F]	April 97-March 98	Jun-97	Jul-97	752.000
Brook Elementary	Wbele	4P-CP	533.90	0.0000	31.7505	65.38	0.89	10.9%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Jul-97	574.227
Carrigan Center	Wbele	3P-CP	1209.61	0.0000	40.6732	53.63	0.97	5.2%	Tdb [°F]	May 97-April 98	Jul-97	Aug-97	1890.000
Denver Center	Wbele	4P-CP	155.27	-5.5386	6.5088	54.15	0.87	11.5%	Tdb [°F]	Jan 97- Dec 97	NA	NA	NA
Fannin Elementary	Wbele	4P-CP	513.44	-31.8701	24.3066	54.15	0.85	11.6%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Jul-97	725.423
Harrell Center	Wbele	4P-CP	418.55	-50.4020	25.7586	53.73	0.89	11.2%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Jul-97	852.461
Haynes Elementary	Wbele	4P-CP	707.31	-20.5940	39.6566	62.32	0.85	8.8%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Aug-97	768.888
Holland Center	Wbele	4P-CP	199.27	-5.2347	1.6140	55.87	0.53	13.1%	Tdb [°F]	Jan 97- Dec 97	May-97	Jul-97	146.110
Jefferson Elementary	Wbele	4P-CP	870.38	-62.7496	19.3176	52.33	0.70	13.1%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Jul-97	385.572
Kirby Jr High School	Wbele	3P-CP	4029.73	0.0000	42.0339	52.20	0.82	5.1%	Tdb [°F]	April 97-March 98	Jun-97	Aug-97	2794.970
Lamar Elementary	Wbele	4P-CP	644.92	0.0000	19.4404	58.28	0.88	9.8%	Tdb [°F]	Jan 97- Dec 97	May-97	Jul-97	373.625
McGaha Elementary	Wbele	4P-CP	332.21	-39.1255	20.5467	52.88	0.87	12.2%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Jul-97	393.444
Mc Neil Jr High School	Wbele	SLR	302.75	0.0000	66.4759	0.00	0.94	6.0%	Tdb [°F]	April 97-March 98	Jun-97	Jul-97	1838.470
Houston Elementary	Wbele	4P-CP	551.31	-37.0101	16.9462	53.65	0.84	9.4%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Aug-97	413.335
Sheppard Elementary	Wbele	4P-CP	557.09	-2.5861	46.4683	61.51	0.95	10.7%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Jul-97	563.408
Wichita Falls High School	Wbele	3P-CP	4622.85	0.0000	311.0708	68.86	0.81	14.1%	Tdb [°F]	May 97-April 98	Jul-97	Aug-97	3347.000
Zundelowitz Jr High School	Wbele	4P-CP	1588.63	-131.0814	4.2216	47.05	0.59	15.6%	Tdb [°F]	Jan 97- Dec 97	Jun-97	Jul-97	656.063