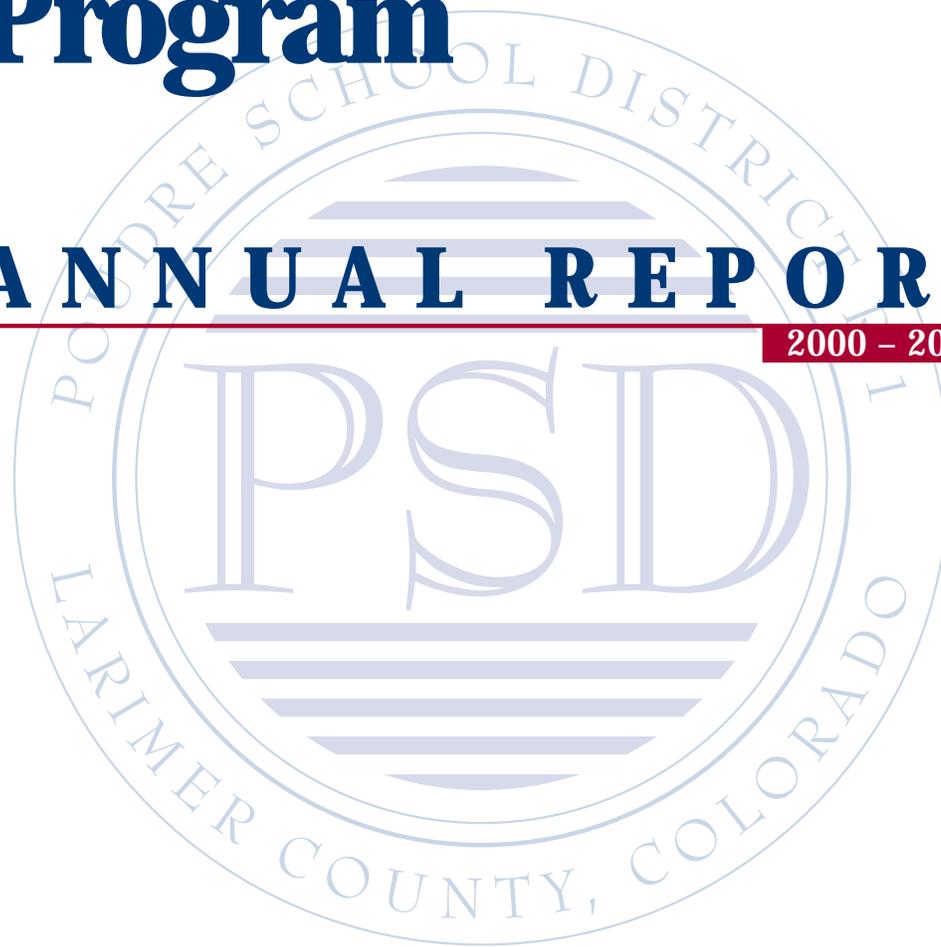


Poudre School District

Energy Conservation Program

ANNUAL REPORT

2000 - 2001



**POUDRE
SCHOOL
DISTRICT**

Saving energy for a brighter future!



Poudre School District Energy Conservation Program Annual Report October 2001

Energy Efficiency Team

Core Leadership

Jim Sarchet - Assistant Superintendent of Business Services/Chief Financial Officer
Joe Hendrickson - Assistant Superintendent of Elementary School Services
Gary Bamford - Assistant Superintendent of Secondary School Services

Facility Services

Bill Franzen - Executive Director of Operations
Pete Hall - Director of Facilities
Jim Knauer - Building Maintenance Supervisor
Stu Reeve - Energy Manager
Frank Rayder - Outdoor Services Supervisor
Alan Boatright - Custodial Supervisor
Jeff Arnold - Facilities Planner
Christina Romero - Energy Technician
Roger Smith – Electrical Department Head
Tom Weatherly – HVAC Department Head
Jerry Garretson – Project Manager
Achai Broner – Energy Intern

Planning, Design, and Construction

Mike Spearnak - Director of Planning, Design, and Construction

Financial Services

Diane Graepler – Accountant

Materials Management

Pam Franzen - Materials Management Coordinator

School Services

Brian Olver - Science & Health Curriculum Coordinator
Marsha Ring - School-to-Career Specialist
School Principals

Poudre Valley Health Systems

Jodi Radke – Community Partnerships

For more information, contact:

Stu Reeve

Energy Department
2413 LaPorte Avenue
Fort Collins, CO 80521

Phone: (970) 490-3502
Fax: (970) 490-3479
stur@psd.k12.co.us



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Partnerships

City of Fort Collins Natural Resources Department
City of Fort Collins Utilities
Colorado State University
Colorado School District Energy Managers
Environmental Protection Agency
Lawrence Berkley Laboratory
National Renewable Energy Laboratory
Platte River Power Authority
Poudre Valley Health Systems
Poudre Valley Rural Electric Association
State of Colorado Office of Energy Management and Conservation
U.S. Department of Energy
Western Area Power Administration
Xcel Energy (formerly Public Service Company of Colorado)



Poudre School District Energy Conservation Program Annual Report Section 1 - Operating Principles

Statement of Purpose

To reduce Poudre School District's energy costs district-wide through conservation efforts, cooperative partnerships, energy savings projects, and energy efficient design.

Goals

1. Research future funding sources for energy savings/sustainable design projects.
2. Improve district-wide benchmarking scores.
3. Certify all eligible sites as Energy Star Buildings.
4. Increase awareness and support district-wide.
5. Reduce electric usage district-wide by 15% using FY 2000 as a benchmark.
6. Secure a long-term source of funding for energy efficiency projects.
7. Use this document to track district-wide energy savings.
8. Continue partnerships.

Board of Education Policy—Energy Conservation—ECF

The Board of Education shall ensure that the district conserves energy and natural resources while exercising sound financial management. The Board believes that public education should provide leadership in developing a realistic energy use ethic and awareness of energy needs and their associated costs.

The superintendent, the assistant superintendent of business services, and the assistant superintendent of school services, or designees, shall develop short- and long-range strategies in the areas of facilities management and curriculum development which deal with energy awareness and efficiency. Implementation of this policy shall be the joint responsibility of the Board, administration, teachers, students, and staff, and its success shall be dependent on cooperation at all levels. Each district employee and student shall actively participate in the district's energy conservation and efficiency program. District administration shall assist the district's Energy Manager in implementing, directing, monitoring, evaluating, and reporting district energy conservation and efficiency.

The district shall maintain accurate records of energy consumption and associated costs and shall provide information on the goals and progress of the district's energy conservation program.

Board of Education Policy—Energy Conservation—ECF (cont.)

An energy efficiency coordinator shall be designated and held accountable for energy management at each district campus. The coordinator may be a classified, certified, or administrative employee who will coordinate regularly with the district's Energy Manager. Judicious use of the various energy systems at each site shall be the joint responsibility of the site manager, the site's head custodian, the site's energy efficiency coordinator, the district's Energy Manager, and the district's Energy Conservation Team.

Curriculum shall be developed to ensure that all students participate in the district's energy management program.

Because the persistence at energy-saving measures relies on the adequate maintenance of equipment, a predetermined percentage of the cost savings earned as a result will be set aside for equipment maintenance.

Energy efficiency shall be a major consideration in the new construction or renovation of district facilities.

The Board of Education shall give the following priorities to the purchase of materials for district use:

1. Reusable
2. Returnable for reuse
3. Recyclable
4. Disposable

The Purchasing Department shall be responsible for ensuring that all district materials are purchased according to these priorities.

Adopted: September 8, 1996

Energy Department as a General Fund Revolving Account

As of July 1, 1997, the Energy budget became a General Fund Revolving Account. The department and budget are self-supporting, retain any budget carryover, and pay for the following items:

1. Operational expenses associated with energy savings
2. Copy and printing costs
3. Staffing costs outside of current authorization (i.e., interns, consultants)
4. Energy projects (electrical, water, and natural gas) that are identified by the Energy Efficiency Team

Energy Department as a General Fund Revolving Account (cont.)

The following are potential revenue sources for this fund:

1. Rebates from energy projects (see list in #4 below)
2. Savings realized by Energy Conservation Program
3. Grant money
4. Rebates from companies due to errors in billings that are detected by Utility Manager or Energy Department staff.

Additional options for funding projects *within* the Energy budget include:

- Platte River Power Authority Master Lease funds
- Utility Upgrades Budget (General Fund)

Options for funding projects identified *outside* of the Energy budget include:

- Capital Reserve Fund
- Mill levy money (1996)
- Building Fund money
- General Fund

Energy Efficiency Team Responsibilities and Expectations

Facility Services

1. Support Poudre School District's Energy Efficiency mission, programs, projects, and partnerships.
2. Pay all electric, natural gas, and water invoices.
3. Maintain accurate records of utility usage and cost at all district sites.
4. Analyze energy consumption at all district sites.
5. Maintain and build community and business partnerships and alliances with energy suppliers and energy managers/engineers.
6. Reduce utility costs through effective energy management and the installation of energy efficient systems and designs.
7. Apply for and coordinate grants and investigate other funding options.
8. Provide support and expertise to Facility Services and sites regarding energy consumption and energy savings opportunities.
9. Review and approve all installations that impact energy consumption.
10. Assist with coordination of efficient facility usage and maintenance projects.
11. Promote energy savings/efficiency to staff and sites on an ongoing basis.
12. Coordinate and manage PSD's commissioning contractors for new construction projects

Energy Efficiency Team Responsibilities and Expectations (cont.)

Custodial/Maintenance/Outdoor Services

1. Support Poudre School District's Energy Efficiency Mission, programs, projects, and partnerships.
2. Provide support and expertise to the Energy Department and to sites, i.e., technical information, blue prints, system schematics, and other energy management related information.
3. Provide support, expertise, and coordination with other departments regarding energy efficiency options, i.e., seasonal system shut downs, night setbacks, turning off lighting when possible, disconnecting excess lighting, maintaining irrigation systems, etc.
4. Maintain all current energy savings systems on a regular basis.
5. Provide ongoing coordination with Energy Department regarding all new installations and replacement projects that would impact energy consumption and efficiency.
6. Assist with coordination of efficient facility usage and maintenance projects.
7. Promote energy savings to staff and sites on an ongoing basis.
8. Support community and business partnerships and alliances.
9. Reduce utility costs through effective energy management and the installation of energy efficient systems and designs.
10. Review and approve all installations that impact energy consumption and efficiency.
11. Coordinate with Team for activities associated with major remodels and construction.

School Services

1. Support Poudre School District's Energy Efficiency Mission, programs, projects, and partnerships.
2. Promote energy savings to staff and sites on an ongoing basis.
3. Support community and business partnerships and alliances.
4. Reduce utility costs through effective energy management.
5. Provide curriculum to support energy conservation and sustainable design

Energy Efficiency Team Guidelines for Prioritizing Project Requests

All requests are thoroughly reviewed by the Energy Efficiency Team for the following:

1. Payback period of project based on rule of 72
2. Project cost and availability of funding
3. Project timing (i.e., new building, addition, or remodel schedules)
4. Customer needs and satisfaction level
5. Payback percentages for energy savings and Facility Services savings (this will determine funding percentages)
6. Project compatibility with Poudre School District's goals for energy efficiency

Energy Project Cycle

1. Identify potential energy savings project.
2. Estimate project costs.
3. Perform energy savings payback analysis.
4. Determine funding source.
5. Coordinate with Energy Efficiency Team to prioritize and approve the project.
6. Consult with or hire engineer(s) to design project.
7. Develop drawings and specifications for project.
8. Coordinate with Purchasing and Facility Services to prepare bid or request for proposal documents.
9. Bid and award project to contractor or in-house staff.
10. Implement project.
11. Coordinate with Facility Services to monitor project installation.
12. Coordinate with Facility Services and engineering firm for final acceptance of project.
13. Begin tracking savings and measure results of energy savings project.

General Procedures for Energy Efficiency Projects

1. All energy efficiency projects will be prioritized, budgeted, and chosen by the Energy Efficiency Team before planning, design, or implementation.
2. Design of energy efficiency projects shall be approved by the Energy Efficiency Team before projects can begin.
3. Energy efficiency projects shall be managed by the Energy Manager.
4. Energy efficiency projects shall follow all purchasing guidelines regarding material acquisition, vendor selection, and contract negotiations.
5. Purchase orders, requisitions, or work orders shall be generated by the Energy Manager for all energy efficiency projects.
6. Facility Services staff are to be involved in all phases of energy efficiency projects.
7. Facility Services staff shall report project status and provide technical data, blue prints, and specifications as requested by the Energy Efficiency Team.
8. Facility Services staff shall provide documentation, photographs, and records on all energy efficiency projects. This documentation shall be provided to the Energy Manager at the beginning and end of each energy efficiency project.

Payback Cycle Calculation

The payback cycle calculation is as follows:

annual previous expenses - annual expected expenses = revenue

$$\frac{\text{cost}}{\text{revenue per year}} = \text{payback in years}$$

New for FY 2001 - Non-school hour energy efficiency HVAC procedures

The goal of our energy efficiency HVAC procedures is to maximize our energy savings potential and reduce our utility expenditures with minimal impact to our building users. These procedures are designed to support Board of Education (BOE) Policy ECF and the energy efficient operation of PSD's heating, ventilation and air conditioning (HVAC) systems. All HVAC systems will be programmed to run in the unoccupied mode (65 degrees during winter season and off during the cooling season) unless activities are scheduled through our Customer Support Center building rental and building use system.

PROCEDURES:

- HVAC energy management systems and controls shall be programmed using our building rental and building use scheduling system.
- Review of schedules will be done on a monthly basis during the school year and summer break.
- Requests to change the energy management programming schedule will be through the Customer Support Center (490-3333) and reviewed and managed by the HVAC department. Coordination of changes will be communicated to the Maintenance Supervisor and Energy Manager.
- After hours calls (490-3333) will be reviewed and managed by the HVAC department. Coordination of changes will be communicated to the Maintenance Supervisor and Energy Manager.
- Communications to sites regarding seasonal changes or break schedule changes to the energy management programming schedule will be done by e-mail two weeks prior to the schedule change.

New for FY 2002 - Outdoor Services Irrigation Savings Plan

The goal of the Outdoor Services Savings Plan is to maximize our energy savings potential and reduce our utility expenditures with minimal impact to our customers.

All PSD irrigation systems will be programmed as follows:

1. Athletic fields and playgrounds will be watered at a rate to assure safety and Playability. All areas non-athletic or non-playground will be watered at a rate less than that of the athletic fields but not detrimental to the turf.
2. Areas that are reserved through the CSC system for special events will be given special consideration.

PROCEDURES:

- Outdoor Service (OS) irrigation systems shall be programmed using building rental, building use, and athletic schedules.
- Review of schedules shall be done on a weekly basis.
- Requests to change the programming will be done through the CSC and reviewed by the OS department. Changes shall be communicated to the Energy Manager.
- After hours calls will be reviewed and managed by OS department.
- Communications to the sites regarding programming changes will be done by e-mail.

Changing the way we water our grounds will have a profound effect on the way some of the grounds will look. It must be noted that through less water there must also be some cultural changes for the savings plan to work. First, is the education of our customers as to why we are doing this and why their grounds look different. Second, is the way we mow grass. Presently we mow at a height of 2.5 inches, this would need to change to 3.5 inches during the hottest part of the season. (athletic fields will remain at 2.5 inches) Third, trees would need supplemental water.

Negative Impacts on Energy Savings

1. Adverse weather conditions
2. Utility rate increases
3. Changes in building usage
4. Additions of large equipment or square footage changes
5. Mechanical failures
6. Human error

Energy Savings Calculations

Calculations account for changes in:

1. The number of days in billing period
2. Current costs
3. Heating degree days and/or cooling degree days (weather corrections)
4. Building square footage
5. Major equipment changes/installations

Actions Used for Energy Savings

1. Utility Manager tracking and payment system
2. Non-school hour energy efficiency HVAC procedures
3. Rate schedule savings opportunities and wholesale purchase of natural gas
4. Mechanical and electrical energy efficiency projects
5. School based energy savings programs such as the Energy Rebate Program
6. Energy grants and rebate funding
7. Partnership opportunities
8. New construction energy efficiency guidelines
9. Staff education and awareness
10. State & Nation-wide benchmarking utility
11. Use of raw water
12. Interval data
13. PRPA Web Site
14. Outdoor Services Conservation Procedures

New for FY 2002 - Energy Rebate Program

In the spring of 2001, the energy efficiency team introduced a new energy rebate program. Based on a yearly commitment, schools can earn money for saving energy. Sites will need to do as much as possible to reduce their electric energy consumption. This includes turning off lights in areas that are not in use, tightening energy management schedules, and reducing the amount of energy consumed whenever possible. The sites are not required to avoid using lighting or electricity when it is needed to conduct district business. By appointing an energy efficiency coordinator at each site, schools can develop staff and student participation through curriculum or extra-curricular activities, similar to the energy action team program. During times when school is not in session, it will be the joint responsibility of the principal and the head custodian to ensure the site is shut down. By including teachers, classified staff, students, and administration in energy conservation, this program allows for district-wide involvement.

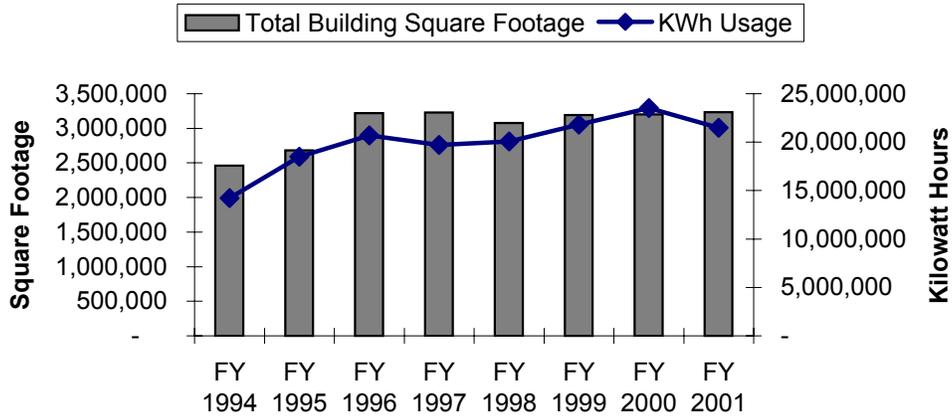
Poudre School District Energy Conservation Program Accomplishments

- Certified 6 schools as energy star buildings, including Harris Bilingual, the only perfect score in the nation!
- Hosted National School Buildings Day on April 21, 2001
- Received the EPA award for Environmental Stewardship
- Received CEFPI award for innovative school design
- Received EPA Tools for Schools award for indoor air quality
- Purchased PSD's first Compressed Natural Gas truck. This alternative fuel vehicle supports PSD's commitment to sustainability.
- Facilitated commissioning contracts on all new construction projects
- Implemented raw water irrigation at 4 sites
- Completed additional energy efficiency projects. To-date, all energy efficiency projects have a one-time savings of over \$750,000, and ongoing, annual savings of over \$200,000
- Received \$15,000 from the Governor's Office of Energy Management and Conservation in design assistance for the new prototype elementary
- Received \$30,000 from the City of Fort Collins Utilities in design assistance for the new prototype elementary.
- Received \$18,000 from Platte River Power Authority for commissioning on the new prototype elementary.
- Negotiated Transport Gas contract due to provider's breach of contract
- Presented PSD's Energy Conservation Program to National School Board Association
- Created Fort Collins Community Energy Conservation Partnership
- Created Energy Rebate program for schools
- Established partnerships with NREL, Lawrence Berkeley Laboratories, Climate Wise, Rebuild America, EPA Tools for Schools, and Clean Cities
- Implemented HVAC shutdown procedures
- Created Outdoor Services Irrigation Savings Plan

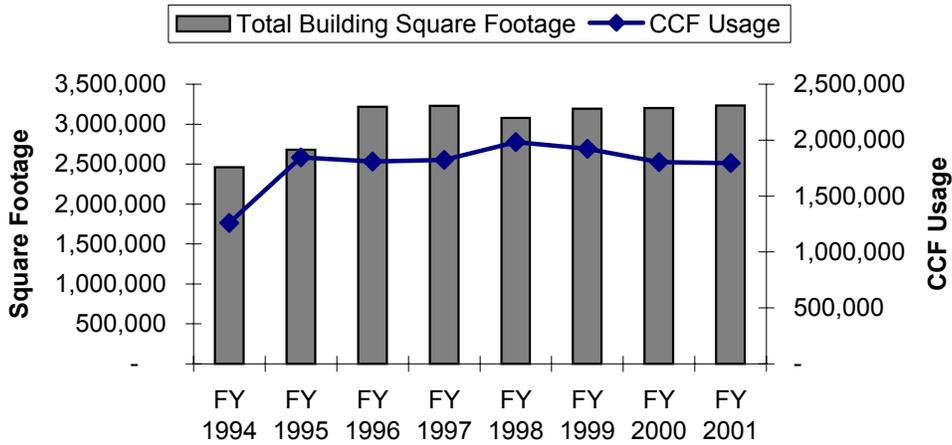


**Energy Efficient Projects
Section 2 – District Statistics**

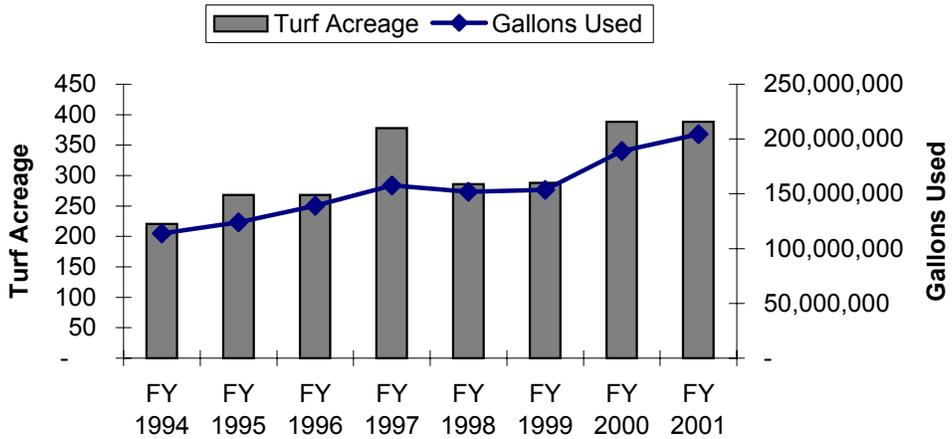
Poudre School District District Statistics



- The tremendous effort put forth at the schools, in cooperation with the Energy Efficiency Team, has resulted in a downturn in electrical use in 2001.

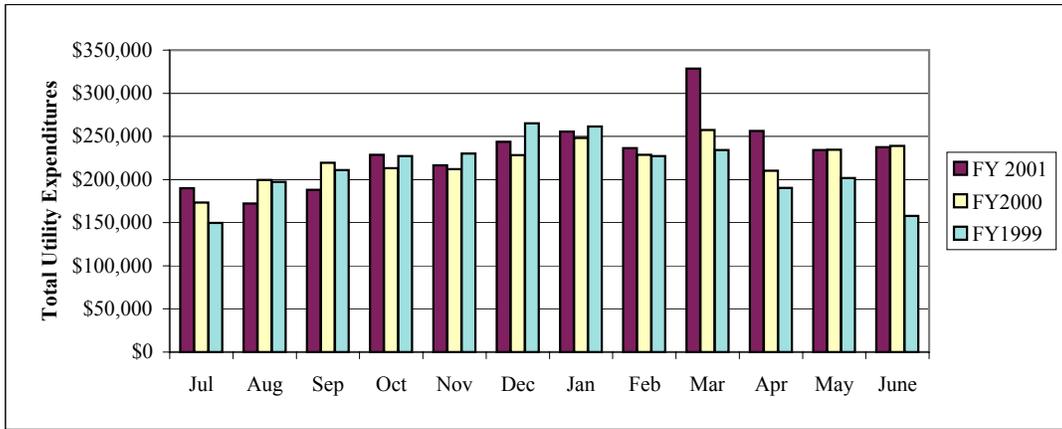


- With the last two years being the coldest winters on record, PSD has managed to lower its overall use of natural gas without affecting building operating temperatures.



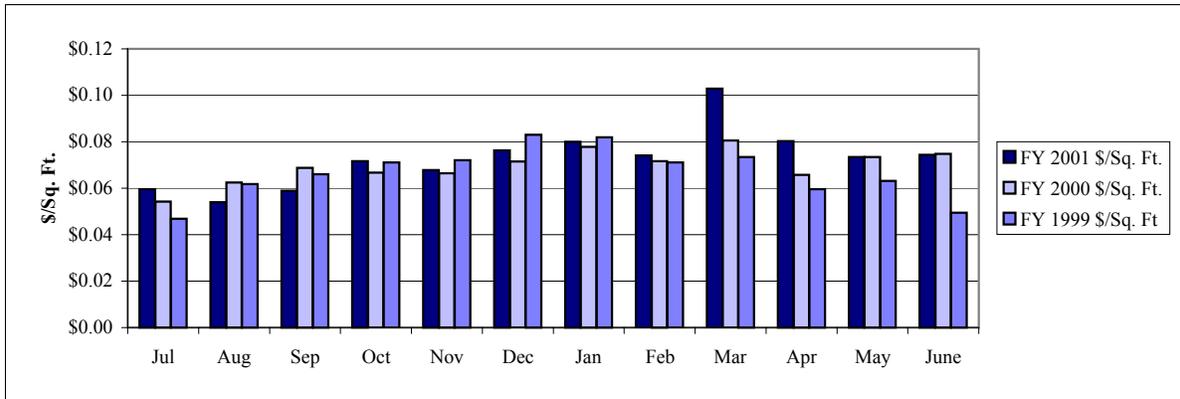
- PSD's growing domestic water use, primarily irrigation, is the next utility that will be reviewed for more efficient practices.

Poudre School District District Statistics Total Utility Expenditures



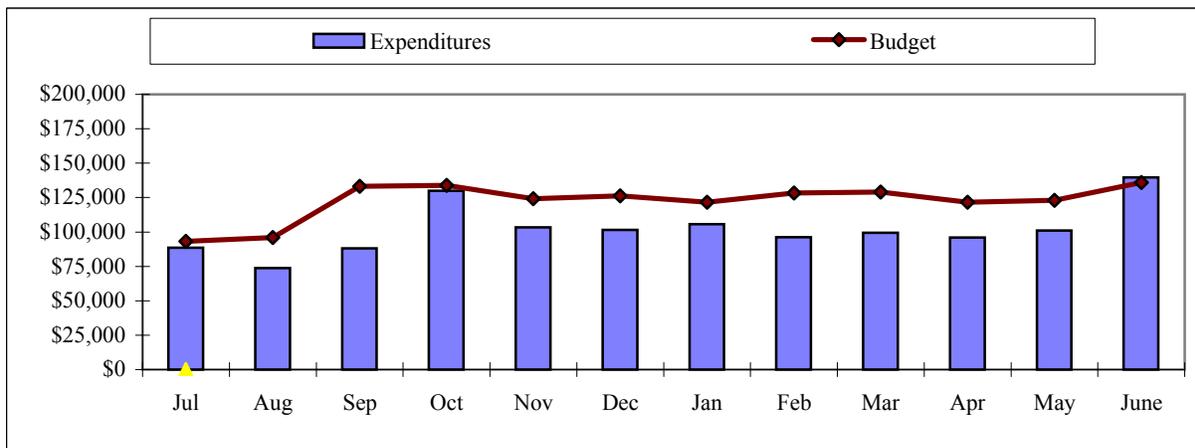
	FY 2001	FY2000	FY1999
Jul	\$190,086	\$173,284	\$149,642
Aug	\$172,233	\$199,367	\$197,421
Sep	\$188,011	\$219,516	\$210,862
Oct	\$228,572	\$213,218	\$227,152
Nov	\$216,666	\$212,006	\$230,083
Dec	\$243,794	\$228,377	\$264,992
Jan	\$255,446	\$248,288	\$261,656
Feb	\$236,587	\$228,760	\$227,159
Mar	\$328,461	\$257,396	\$234,343
Apr	\$256,307	\$210,109	\$190,252
May	\$234,357	\$234,641	\$201,642
June	\$237,423	\$238,951	\$157,962
Annual	\$2,787,942	\$2,663,914	\$2,553,166

Poudre School District District Statistics Total Utility Expenditures per Square Foot



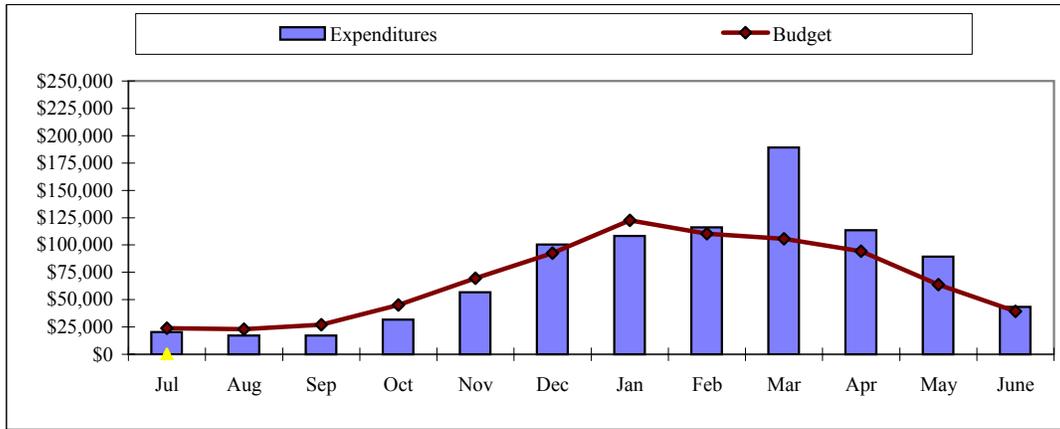
	FY 2001		FY 2000		FY 1999	
	Expenditures	\$/Sq. Ft.	Expenditures	\$/Sq. Ft.	Expenditures	\$/Sq. Ft.
Jul	\$190,086	\$0.06	\$173,284	\$0.05	\$149,642	\$0.05
Aug	\$172,233	\$0.05	\$199,367	\$0.06	\$197,421	\$0.06
Sep	\$188,011	\$0.06	\$219,516	\$0.07	\$210,862	\$0.07
Oct	\$228,572	\$0.07	\$213,218	\$0.07	\$227,152	\$0.07
Nov	\$216,666	\$0.07	\$212,006	\$0.07	\$230,083	\$0.07
Dec	\$243,794	\$0.08	\$228,377	\$0.07	\$264,992	\$0.08
Jan	\$255,446	\$0.08	\$248,288	\$0.08	\$261,656	\$0.08
Feb	\$236,587	\$0.07	\$228,760	\$0.07	\$227,159	\$0.07
Mar	\$328,461	\$0.10	\$257,396	\$0.08	\$234,343	\$0.07
Apr	\$256,307	\$0.08	\$210,109	\$0.07	\$190,252	\$0.06
May	\$234,357	\$0.07	\$234,641	\$0.07	\$201,642	\$0.06
June	\$237,423	\$0.07	\$238,951	\$0.07	\$157,962	\$0.05
Annual	\$2,787,942		\$2,663,914		\$2,553,166	

Poudre School District District Statistics FY 2001 Electricity Expenditures vs. Budget



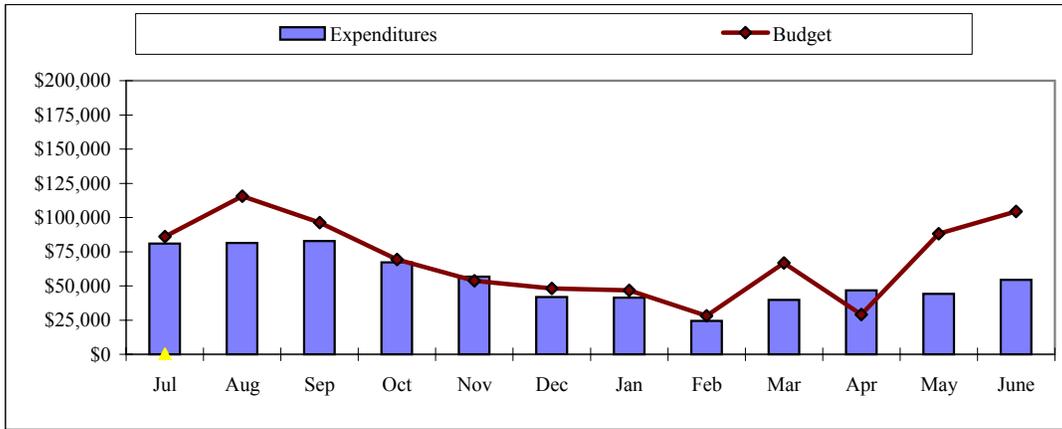
	Expenditures	Budget	% of budget
Jul	\$88,639	\$93,138	6%
Aug	\$73,732	\$96,010	7%
Sep	\$87,994	\$133,120	9%
Oct	\$129,842	\$133,965	9%
Nov	\$103,285	\$124,114	8%
Dec	\$101,542	\$126,157	9%
Jan	\$105,759	\$121,504	8%
Feb	\$96,118	\$128,435	9%
Mar	\$99,390	\$129,005	9%
Apr	\$95,993	\$121,717	8%
May	\$100,952	\$122,953	8%
June	\$139,733	\$135,880	9%
Annual	\$1,222,979	\$1,466,750	100%

Poudre School District District Statistics FY 2001 Natural Gas Expenditures vs. Budget



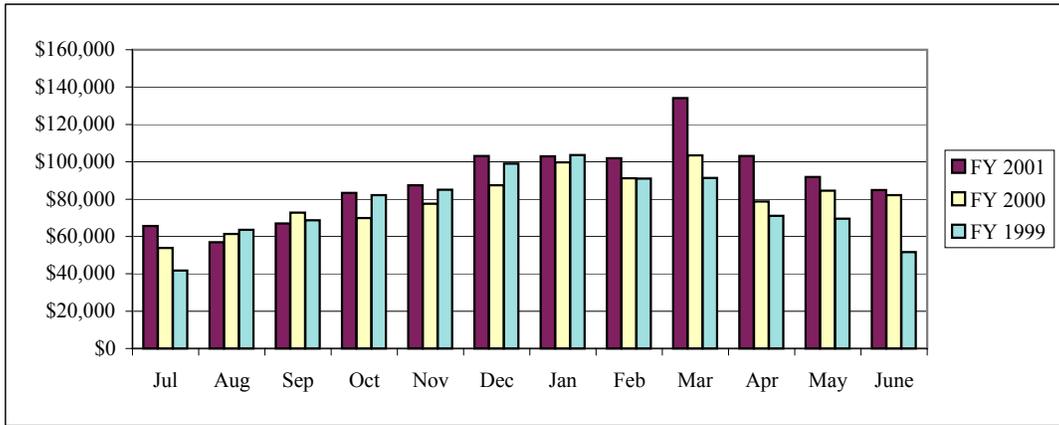
	Expenditures	Budget	% of budget
Jul	\$20,502	\$23,997	3%
Aug	\$17,136	\$22,852	3%
Sep	\$17,132	\$27,074	3%
Oct	\$31,607	\$45,198	6%
Nov	\$56,607	\$69,670	9%
Dec	\$100,461	\$92,566	11%
Jan	\$108,369	\$122,438	15%
Feb	\$116,131	\$110,386	14%
Mar	\$189,272	\$105,659	13%
Apr	\$113,555	\$94,195	12%
May	\$89,270	\$63,695	8%
June	\$43,313	\$39,270	5%
Annual	\$903,355	\$817,000	102%

Poudre School District District Statistics FY 2001 Water Expenditures vs. Budget



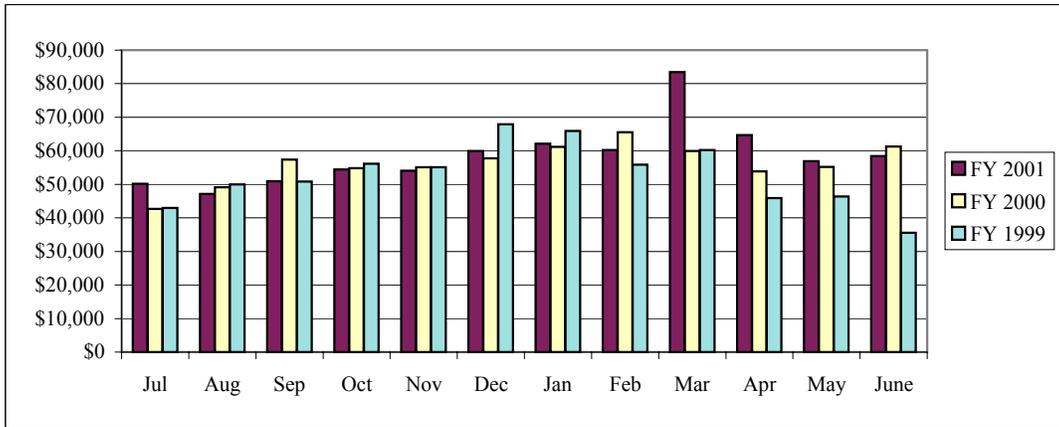
	Expenditures	Budget	% of budget
Jul	\$80,945	\$85,949	10%
Aug	\$81,364	\$115,541	14%
Sep	\$82,885	\$96,163	12%
Oct	\$67,123	\$69,341	8%
Nov	\$56,773	\$53,605	6%
Dec	\$41,791	\$48,049	6%
Jan	\$41,318	\$46,830	6%
Feb	\$24,338	\$28,078	3%
Mar	\$39,798	\$66,818	8%
Apr	\$46,760	\$29,069	3%
May	\$44,135	\$88,201	11%
June	\$54,377	\$104,360	13%
Annual	\$661,607	\$832,004	100%

Poudre School District District Statistics Elementary Utility Expenditures



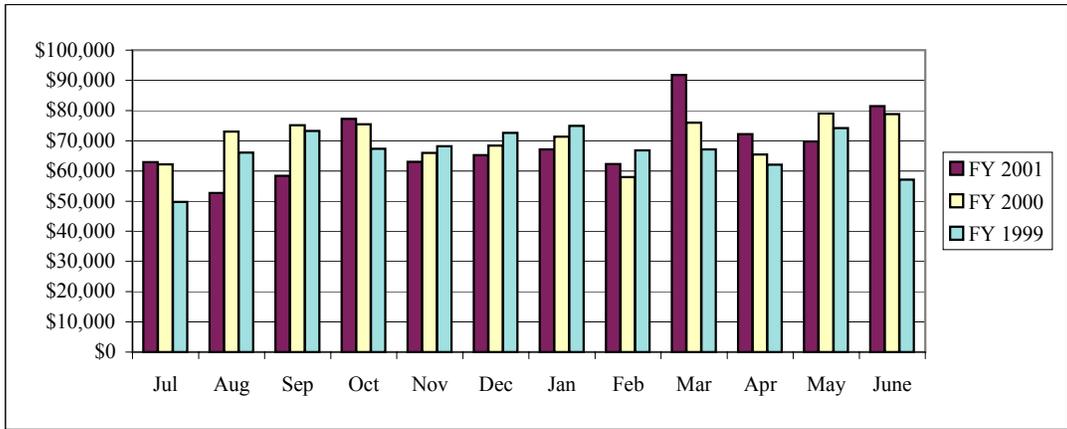
	FY 2001	FY 2000	FY 1999
Jul	\$65,597	\$53,811	\$41,670
Aug	\$56,885	\$61,394	\$63,504
Sep	\$67,017	\$72,829	\$68,729
Oct	\$83,292	\$69,815	\$82,100
Nov	\$87,353	\$77,566	\$85,043
Dec	\$103,065	\$87,416	\$98,955
Jan	\$102,923	\$99,741	\$103,536
Feb	\$101,826	\$91,142	\$91,027
Mar	\$134,022	\$103,380	\$91,369
Apr	\$103,031	\$78,662	\$71,129
May	\$91,910	\$84,569	\$69,540
June	\$84,909	\$82,182	\$51,558
Annual	\$1,081,832	\$962,507	\$918,160

Poudre School District District Statistics Junior High Utility Expenditures



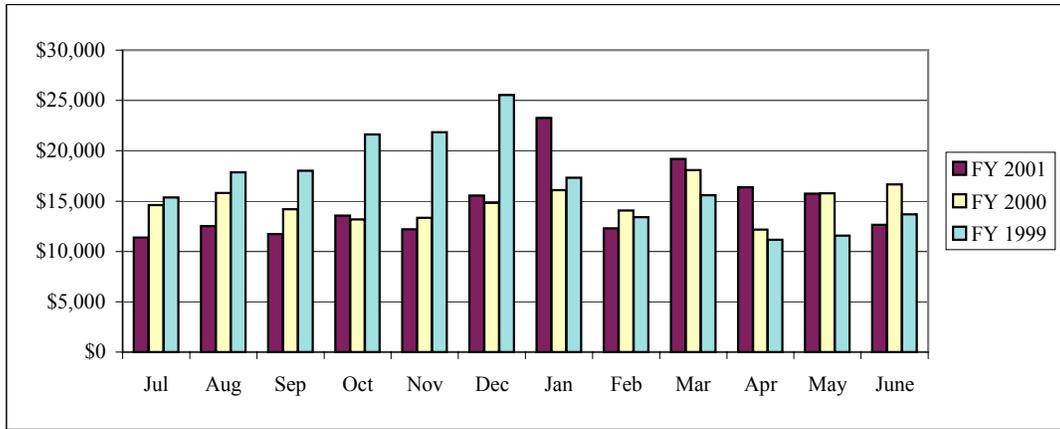
	FY 2001	FY 2000	FY 1999
Jul	\$50,154	\$42,673	\$42,924
Aug	\$47,113	\$49,152	\$50,007
Sep	\$50,885	\$57,399	\$50,846
Oct	\$54,435	\$54,791	\$56,109
Nov	\$54,095	\$55,115	\$55,056
Dec	\$59,970	\$57,792	\$67,910
Jan	\$62,156	\$61,139	\$65,890
Feb	\$60,242	\$65,549	\$55,894
Mar	\$83,446	\$59,952	\$60,209
Apr	\$64,723	\$53,836	\$45,943
May	\$56,923	\$55,238	\$46,362
June	\$58,432	\$61,257	\$35,593
Annual	\$702,575	\$673,891	\$632,743

Poudre School District District Statistics Senior High Utility Expenditures



	FY 2001	FY 2000	FY 1999
Jul	\$62,957	\$62,183	\$49,686
Aug	\$52,706	\$73,027	\$66,041
Sep	\$58,396	\$75,092	\$73,278
Oct	\$77,281	\$75,440	\$67,331
Nov	\$63,017	\$65,983	\$68,137
Dec	\$65,212	\$68,354	\$72,598
Jan	\$67,112	\$71,312	\$74,901
Feb	\$62,232	\$58,001	\$66,825
Mar	\$91,808	\$75,987	\$67,170
Apr	\$72,181	\$65,451	\$62,013
May	\$69,770	\$79,061	\$74,179
June	\$81,430	\$78,851	\$57,125
Annual	\$824,104	\$848,742	\$799,284

Poudre School District District Statistics Administrative Sites Utility Expenditures



	FY 2001	FY 2000	FY 1999
Jul	\$11,378	\$14,618	\$15,362
Aug	\$12,529	\$15,794	\$17,870
Sep	\$11,712	\$14,197	\$18,013
Oct	\$13,563	\$13,172	\$21,612
Nov	\$12,200	\$13,343	\$21,847
Dec	\$15,547	\$14,816	\$25,529
Jan	\$23,255	\$16,096	\$17,329
Feb	\$12,286	\$14,068	\$13,413
Mar	\$19,185	\$18,078	\$15,596
Apr	\$16,372	\$12,160	\$11,168
May	\$15,755	\$15,774	\$11,561
June	\$12,652	\$16,660	\$13,686
Annual	\$176,433	\$178,774	\$202,986



Energy Efficient Projects Section 3 - Completed Project Summaries

Financial Information, including budgets, revenues, costs, and savings can be found in Section 5 – Project and Funding Summary

Project 1

Purchase of Faser Software/Hardware

Project Date(s): January 1994
Project Site: Energy/Security Office
Project Methodology: Purchased from vendor.
Estimated Payback: 1 year.
Comments: Worked with Information Systems and Finance Department to interface the energy tracking system with the financial system. Faser is an energy accounting system which confirms the accuracy of utility company billing based on weather, billing cycles, rate schedules, and comparisons to past usage data.

Project 2

Technical Audit Grant

Project Date(s): Application completed in February 1994
Project Site: Boltz Junior High School
Lincoln Junior High School
Lopez Elementary School
Support Services Center
Project Methodology: A complete technical energy audit/analysis of sites was completed in order to produce documentation/data to assist with prioritization of future energy conservation measures projects. Completed by CAER Engineers, Golden, Colorado. Source of grant money was United States Department of Energy, distributed by Colorado State Office of Energy Conservation.
Estimated Payback: Not applicable.
Comments: The completion of the technical audit was required to apply for future grant money.

Project 3

Audit of City of Fort Collins Water Bills

Project Date(s): June 1994
Project Site: District Wide
Project Methodology: City water usage bills were reviewed and rate schedules were analyzed for errors.
Estimated Payback: Not applicable.
Comments: City of Fort Collins was instrumental in planning and completing this project.

Project 4

Purchase of Water Shares

Project Date(s): June 1994
Project Site: All district bills were reviewed.
Project Methodology: City water bills were reviewed and rate schedules were analyzed for errors. Surcharges on water usage was found and additional water shares were exchanged to eliminate future surcharges.
Estimated Payback: Less than 1 year.
Comments: The district had available and excess water shares due to previous property purchases.

Project 5

SSC Rate Schedule Change

Project Date(s): June 1994
Project Site: Support Services Center
Project Methodology: City water bills were reviewed and rate schedules were analyzed for errors.
Estimated Payback: Less than 1 year.
Comments: Through water bill analysis, rate schedule errors were detected and remedied.

Project 6

McGraw Elementary Rate Schedule Change

Project Date(s): June 1994
Project Site: McGraw Elementary School
Fort Collins-Loveland Water District
Project Methodology: City water bills were reviewed and rate schedules were analyzed for errors.
Estimated Payback: Less than 1 year.
Comments: Through water bill analysis, rate schedule errors were detected and remedied.

Project 7

Purchase Transport Gas

Project Date(s): September 1994 started and will be ongoing.
Project Site: Fort Collins High School
Poudre High School
Rocky Mountain High School
Boltz Junior High School
Lincoln Junior High School
Project Methodology: Purchase wholesale natural gas and lease Public Service's gas transportation lines.
Estimated Payback: Less than 1 year.
Comments: Public Service Company of Colorado estimated savings for the year would be \$14,000. The district cost during the first year was \$10,000. Due to mild weather during the 1994 winter, the estimated savings was not reached.

Project 8

Faser Billing Errors

Project Date(s): April 1994 through June 1995
Project Site: District Wide
Project Methodology: Utilized Faser to detect billing errors.
Estimated Payback: Not applicable.
Comments: None.

Project 9

SSC Lighting Retrofit

Project Date(s): January 1995
Project Site: Support Services Center
Project Methodology: All lamps and ballasts were replaced with a new energy efficient lighting system.
Estimated Payback: 3 years.
Comments: The project was possible due to prior year technical energy audit results. This project was funded by a grant through the Colorado Governor's Office.

Project 10

Boltz Junior High Rooftop Unit Retrofit

Project Date(s): January 1995
Project Site: Boltz Junior High School
Project Methodology: Replace existing inefficient heating systems in the technical education area of the school.
Estimated Payback: 4 years.
Comments: The project was possible due to prior year technical energy audit results. This project was funded by a grant through the Colorado Governor's Office.

Project 11

Lincoln Junior High School Energy Management System Installation

Project Date(s): May 1995
Project Site: Lincoln Junior High School
Project Methodology: Installed automated energy management system for mechanical controls and operation.
Estimated Payback: 4.6 years.
Comments: The project was possible due to prior year technical energy audit results. This project was funded by a grant through the United States Department of Energy and the Colorado Office of Energy Conservation. Due to grant funding the district was able to save \$35,325. This savings will be retained in the Capital Reserve Fund for future energy savings projects.

Project 12

Technical Audit Grant

Project Date(s): Application completed in February 1995.
Project Site: Blevins Junior High School
Cache La Poudre Junior High School
Bauder Elementary School
Tavelli Elementary School
Project Methodology: A complete technical energy audit/analysis of sites was completed in order to produce documentation/data to assist with prioritization of future energy conservation measures projects. Completed by E-Cube, Boulder, Colorado. This project was funded by a grant through the United States Department of Energy and the Colorado Office of Energy Conservation.
Estimated Payback: Not applicable.
Comments: The completion of the technical audit was required to apply for future grant money.

Project 13

Faser Billing Errors

Project Date(s): July 1, 1995, through January 18, 1996
Project Site: District Wide
Project Methodology: Utilized Faser to detect billing errors.
Estimated Payback: Not applicable.
Comments: None.

Project 14

Public Service Rebate

Project Date(s): November 1995
Project Site: District Wide
Project Methodology: None.
Estimated Payback: Not applicable.
Comments: Based on natural gas consumption from October 1, 1993, through September 30, 1994, Public Service provided a mandated Public Utilities Commission rebate.

Project 15

Purchase Transport Gas

Project Date(s): September 1995
Project Site: Poudre High School
Rocky Mountain High School
Boltz Junior High School
Lincoln Junior High School
Fort Collins High School
Preston Junior High School
Project Methodology: Renegotiated wholesale purchase of natural gas for above sites.
Estimated Payback: Not applicable.
Comments: Created alliance between Colorado Front Range governmental and non-governmental agencies to facilitate cooperative purchasing plan.

Project 16

Training of Energy/Security Supervisor

Project Date(s): August 1995
Project Site: Energy/Security Department
Project Methodology: Sent Energy/Security Supervisor to Energy Engineering School, located at the University of Wisconsin, Madison, Wisconsin.
Estimated Payback: Unknown.
Comments: This educational opportunity provided supervisor with additional knowledge to plan for and implement future district energy efficiency projects.

Project 17

Energy Action Team Program

Project Date(s): May 1995
Project Site: District Wide
Project Methodology: Implemented school-based energy savings program.
Estimated Payback: Unknown.
Comments: This project was a collaborative effort between the following: City of Fort Collins Light and Power, Western Area Power Association, Public Service Company, and Poudre Valley Rural Electric Association. Students and staff at sites have been trained to conserve electricity, natural gas, and water at their sites. The project is incentive based and provides rebates to sites based on prior year total annual energy savings.

Project 18

Blevins Junior High Boiler Insulation

Project Date(s): November 1995
Project Site: Blevins Junior High School
Project Methodology: Upgraded existing insulation due to boiler retrofit.
Estimated Payback: 4 years.
Comments: This project was a collaborative effort between the Energy/Security Department and Facility Services staff.

Project 19

Lincoln Junior High School Lighting Retrofit

Project Date(s): August 1996
Project Site: Lincoln Junior High School
Project Methodology: All lamps and ballasts were replaced with a new energy efficient lighting system.
Estimated Payback: 5.2 years.
Comments: This project was possible due to prior technical audit results. The project was funded by a rebate from Public Service Company and energy upgrade budget.

Project 20

Mountain View Annex Exit Signs

Project Date(s): July 1996
Project Site: Mountain View Annex
Project Methodology: Replace all exit light fixtures.
Estimated Payback: 2 years.
Comments: Project was funded from the energy upgrade budget. Estimated payback includes maintenance and fixture costs.

Project 21

Moore Elementary School Gym Lighting

Project Date(s): July 1996
Project Site: Moore Elementary School
Project Methodology: Replace gym lighting system with energy efficient fixtures.
Estimated Payback: 5 years.
Comments: Project was funded by energy upgrade budget.

Project 22

Bennett Elementary Gym Lighting

Project Date(s): July 1996
Project Site: Bennett Elementary School
Project Methodology: Replace gym lighting system with energy efficient fixtures.
Estimated Payback: 5 years.
Comments: Project was funded by energy upgrade budget.

Project 23

Poudre High School Wrestling Room Lighting

Project Date(s): July 1996
Project Site: Poudre High School
Project Methodology: Replace gym lighting system with energy efficient fixtures.
Estimated Payback: 5 years.
Comments: Project was funded by energy upgrade budget.

Project 24

Lincoln Junior High School Hot Water Retrofit

Project Date(s): August 1996
Project Site: Lincoln Junior High School
Project Methodology: Replace old hot water system with energy efficient system.
Estimated Payback: 8.2 years.
Comments: Project was completed for maintenance reasons and energy efficiency. Project was funded from energy upgrade budget.

Project 25

Bauder Elementary School Hot Water Retrofit

Project Date(s): August 1996
Project Site: Bauder Elementary School
Project Methodology: Replace old hot water system with energy efficient system.
Estimated Payback: 8.2 years.
Comments: Project was completed for maintenance reasons and energy efficiency. Project was funded from energy upgrade budget.

Project 26

Modular #4 Heating Retrofit

Project Date(s): August 1996
Project Site: Modular
Project Methodology: Replace electric heating system with energy efficient natural gas system.
Estimated Payback: 3 years.
Comments: Project was funded by energy upgrade budget. This project also reduces costs in relocating modulars by eliminating the need to rebuild electric services at schools.

Project 27

Modular #5 Heating Retrofit

Project Date(s): August 1996
Project Site: Modular
Project Methodology: Replace electric heating system with energy efficiency natural gas system.
Estimated Payback: 3 years.
Comments: Project was funded by energy upgrade budget. This project also reduces costs in relocating modulars by eliminating the need to rebuild electric services at schools.

Project 28

Modular #11 Heating Retrofit

Project Date(s): August 1996
Project Site: Modular
Project Methodology: Replace electric heating system with energy efficient natural gas system.
Estimated Payback: 3 years.
Comments: Project was funded by energy upgrade budget. This project also reduces costs in relocating modulars by eliminating the need to rebuild electric services at schools.

Project 29

Fort Collins High School Technical Audit

Project Date(s): January 1997
Project Site: Fort Collins High School
Project Methodology: Analysis of building energy use (i.e., air conditioning) to determine facility use costs.
Estimated Payback: None.
Comments: Project was funded by energy upgrade budget.

Project 30

Fort Collins High School Disconnect Lighting

Project Date(s): May - October 1997
Project Site: Fort Collins High School
Project Methodology: Disconnect over-designed lighting system.
Estimated Payback: Less than 2 years.
Comments: None.

Project 31

Poudre High School Disconnect Lighting

Project Date(s): May - October 1997
Project Site: Poudre High School
Project Methodology: Disconnect over-designed lighting system.
Estimated Payback: Less than 2 years.
Comments: None.

Project 32

Rocky Mountain High School Disconnect Lighting

Project Date(s): May - October 1997
Project Site: Rocky Mountain High School
Project Methodology: Disconnect over-designed lighting system.
Estimated Payback: Less than 2 years.
Comments: None.

Project 33

Cache La Poudre Junior High Lighting Retrofit

Project Date(s): May - October 1997
Project Site: Cache La Poudre Junior High
Project Methodology: All lamps and ballasts were replaced with a new energy efficient lighting system.
Estimated Payback: 13 years.
Comments: This project was timed to coincide with major remodeling at the site.

Project 34

Beattie Elementary Automate Irrigation System

Project Date(s): July - August 1997
Project Site: Beattie Elementary
Project Methodology: Replace manual irrigation system with high efficiency automated system.
Estimated Payback: 4 years.
Comments: None.

Project 35

Boltz Junior High Lighting Retrofit

Project Date(s): Summer 1997
Project Site: Boltz Junior High
Project Methodology: All lamps and ballasts were replaced with a new energy efficient lighting system.
Estimated Payback: 3 years.
Comments:

Project 36

Modular #20 Heating Retrofit

Project Date(s): June - August 1997
Project Site: Modular
Project Methodology: Replace electric heating system with energy efficient natural gas system.
Estimated Payback: 3 years.
Comments: Project was funded by energy upgrade budget. This project also reduces costs in relocating modulators by eliminating the need to rebuild electric services at schools.

Project 37

Harris Elementary Annex Heating Retrofit

Project Date(s): June - August 1997
Project Site: Harris Elementary
Project Methodology: Replace electric heating system with energy efficient natural gas system.
Estimated Payback: 3 years.
Comments: Project was funded by energy upgrade budget. This project also reduces costs in relocating modulators by eliminating the need to rebuild electric services at schools.

Project 38

Dunn Elementary Roof Insulation

Project Date(s): May - August 1997
Project Site: Dunn Elementary
Project Methodology: Install upgraded energy efficient insulation during re-roofing project.
Estimated Payback: 7 years.
Comments: This project was timed to coincide with a re-roofing at the site.

Project 39

Irish Elementary Roof Insulation

Project Date(s): May - August 1997
Project Site: Irish Elementary
Project Methodology: Install upgraded energy efficient insulation during re-roofing project.
Estimated Payback: 7 years.
Comments: This project was timed to coincide with a re-roofing at the site.

Project 40

Support Services Center Roof Insulation

Project Date(s): May - August 1997
Project Site: Support Services Center
Project Methodology: Install upgraded energy efficient insulation during re-roofing project.
Estimated Payback: 7 years.
Comments: This project was timed to coincide with a re-roofing at the site.

Project 41

Warehouse #4 & Plumbing Shop Solatubes

Project Date(s): March 1998
Project Site: Support Services Complex
Project Methodology: Pilot system for future lighting solutions.
Estimated Payback: Unknown.
Comments: None.

Project 42

Webber Junior High Technical Audit

Project Date(s): May 1998
Project Site: Webber Junior High
Project Methodology: A complete technical energy audit/analysis of the site was completed in order to produce documentation/data to assist with prioritization of future energy conservation measures projects. Completed by E-Cube, Boulder, Colorado
Estimated Payback: Not applicable.
Comments: None.

Project 43

Rocky Mountain High School Technical Audit

Project Date(s): May 1998
Project Site: Rocky Mountain High School
Project Methodology: A complete technical energy audit/analysis of the site was completed in order to produce documentation/data to assist with prioritization of future energy conservation measures projects. Completed by E-Cube, Boulder, Colorado
Estimated Payback: Not applicable.
Comments: None.

Project 44

Purchase Transport Gas

Project Date(s): September 1997
Project Site: Lesher Junior High
Blevins Junior High
Webber Junior High
Warehouse 4
Project Methodology: Renegotiated wholesale purchase of natural gas for above sites.
Estimated Payback: Not applicable.
Comments: Created alliance between Colorado Front Range governmental and non-governmental agencies to facilitate cooperative purchasing plan.

Project 45

FCCHS Irrigation System Motor Upgrade

Project Date(s): Winter 1997/1998
Project Site: Fort Collins High School
Project Methodology: Installed energy efficient variable frequency drive controls to irrigation pump motors.
Estimated Payback: 3.3 Years
Comments: None.

Project 46

Energy Management System

Project Date(s): Summer 1997
Project Site: Support Services Center
Project Methodology: Install automated energy management system for mechanical controls and operation.
Estimated Payback: 6 Years
Comments:

Project 47

City of Fort Collins Rate Negotiation

Project Date(s): Ongoing
Project Site: District Wide
Project Methodology: Negotiated a reduced rate with the City of Fort Collins Utilities
Comments: Savings accounted for in Rate Negotiations and Specialized Contracts section.

Project 48

Boltz Junior High Energy Management System

Project Date(s): Spring 1999
Project Site: Boltz Junior High
Project Methodology: Install automated energy management system for mechanical controls and operation.
Estimated Payback: 4.8 years
Comments: This project was possible due to prior year technical energy audit results.

Project 49

Electric Water Heater Retrofit

Project Date(s): Summer 1998
Project Site: Lopez Elementary
Project Methodology: Replace oversized electric water heaters with energy efficient electric water heaters.
Estimated Payback: 4 months
Comments: None.

Project 50

Denver Burglar Alarm Buyouts

Project Date(s): Summer 1998
Project Site: Irish
Fullana
Werner
Beattie
Lopez
Red Feather
Stove Prairie
Livermore
Support Services Center
Project Methodology: Purchase leased security systems.
Estimated Payback: 3 years
Comments: This allows for reduced monthly rates as well as the flexibility to use other monitoring vendors.

Project 51

Transport Gas Expansion

Project Date(s): Summer 1998
Project Site: Barton
Bauder
Beattie
Bennett
CLP Elementary
Irish
McGraw
Moore
O'Dea
Putnam
Riffenburgh
Shepardson
Tavelli
Timnath
CLP Junior High
Project Methodology: Expand current purchase of wholesale natural gas to additional sites.
Estimated Payback: Less than 1 year
Comments: Savings accounted for in Rate Negotiations and Specialized Contracts section.

Project 52

Lighting Retrofit

Project Date(s): Summer 1998
Project Site: Webber Junior High
Project Methodology: Replace lamps and ballasts with an energy efficient lighting system.
Estimated Payback: 2 years
Comments: This project was possible due to prior year technical energy audit results.

Project 53

Lighting Retrofit

Project Date(s): Summer 1998
Project Site: Rocky Mountain High School Gym
Project Methodology: Replace lamps and ballasts with an energy efficient lighting system in the gym area.
Estimated Payback: 8.4 years
Comments: This project was possible due to prior year technical energy audit results. This project is also a safety concern due to lighting fixtures falling out of the suspended ceiling.

Project 54

Gym Lighting Retrofit

Project Date(s): Summer 1999
Project Site: Lesher Junior High
Project Methodology: Replace gym lighting system with energy efficient fixtures.
Estimated Payback: 5.8 years
Comments: None.

Project 55

Gym Lighting Retrofit

Project Date(s): Summer 1999
Project Site: Irish Elementary
Project Methodology: Replace gym lighting system with energy efficient fixtures.
Estimated Payback: 5 years
Comments: None.

Project 56

Gym Lighting Retrofit

Project Date(s): Summer 1999
Project Site: Riffenburgh Elementary
Project Methodology: Replace gym lighting system with energy efficient fixtures.
Estimated Payback: 5 years
Comments: None.

Project 57

Gym Lighting Retrofit

Project Date(s): Summer 1999
Project Site: Tavelli Elementary
Project Methodology: Replace gym lighting system with energy efficient fixtures.
Estimated Payback: 5 years
Comments: None.

Project 58

Gym Lighting Retrofit

Project Date(s): Summer 1999
Project Site: Bauder Elementary
Project Methodology: Replace gym lighting system with energy efficient fixtures.
Estimated Payback: 5 years
Comments: None.

Project 59

Gym Lighting Retrofit

Project Date(s): Summer 1999
Project Site: O'Dea Elementary
Project Methodology: Replace gym lighting system with energy efficient fixtures.
Estimated Payback: 5 years
Comments: None.

Project 60
Gym Lighting Retrofit

Project Date(s): Summer 1999
Project Site: CLP Junior High
Project Methodology: Replace gym lighting system with energy efficient fixtures.
Estimated Payback: 7 years
Comments: None.

Project 61
Lighting Retrofit

Project Date(s): Summer 1999
Project Site: Lopez Elementary
Project Methodology: Replace lamps and ballasts with an energy efficient lighting system.
Estimated Payback: 4.3 years
Comments: This project was possible due to prior year technical energy audit results.

Project 62
Utility Manager Purchase

Project Date(s): Spring 1999
Project Site: District Wide
Project Methodology: Purchase more efficient utility tracking system that is Y2K compliant.
Estimated Payback: Not applicable
Comments: None.

Project 63
Raw Water Project

Project Date(s): Spring 2000
Project Site: Riffenburgh
Project Methodology: Convert irrigation to raw water.
Estimated Payback: Less than 1 year
Comments: None.

Project 64
Security System Buyouts

Project Date(s): Spring 2000
Project Site: Blevins Junior High
Johnson Elementary
Barton Elementary
Bauder Elementary
Webber Junior High
Eyestone Elementary
South Bus Terminal
O’Dea Elementary
Riffenburgh Elementary
Linton Elementary
Fort Collins High School
Tavelli Elementary
Timnath Elementary
Dunn Elementary
Lesher Junior High
CLP Junior High
Boltz Junior High
Shepardson Elementary
Olander Elementary
Lincoln Junior High
Laurel Elementary
McGraw Elementary
CLP Elementary
Kruse Elementary
Bennett Elementary
Project Methodology: Purchase leased security systems.
Estimated Payback: 2.6 years
Comments: This allows for reduced monthly rates as well as the flexibility to use other monitoring vendors.

Project 65
Lighting Retrofit

Project Date(s): Summer 1999
Project Site: Boltz Modular
Project Methodology: West modular converted to electronic ballasts and T-8s.
Estimated Payback: 4.6 years
Comments: This project was paid for by Facilities.

Project 66
Lighting Retrofit

Project Date(s): Summer 2000
Project Site: Stove Prairie
Project Methodology: All lights converted to electronic ballasts and T-8s.
Estimated Payback: 6 years
Comments: This project was paid for by Facilities.

Project 67
Energy Management System

Project Date(s): Summer 2000
Project Site: Beattie Elementary
Project Methodology: Install automated energy management system for mechanical controls and operation.
Estimated Payback: 4 Years
Comments: None.

Project 68
Lighting Retrofit

Project Date(s): Summer 2000
Project Site: CLP Elementary
Project Methodology: All lights converted to electronic ballasts and T-8s.
Estimated Payback: 3 Years
Comments: None.

Project 69
Lighting Retrofit

Project Date(s): Summer 2000
Project Site: Eyestone Elementary
Project Methodology: All lights converted to electronic ballasts and T-8s.
Estimated Payback: 3 Years
Comments: None.

Project 70
Lighting Retrofit

Project Date(s): Summer 2000
Project Site: Fullana Learning Center
Project Methodology: All lights converted to electronic ballasts and T-8s.
Estimated Payback: 5 Years
Comments: None.

Project 71
Hot Water Retrofit

Project Date(s): Summer 2000
Project Site: Fullana Learning Center
Project Methodology: Replace old hot water system with energy efficient system.
Estimated Payback: 1 Year
Comments: None.

Project 72

Roof Insulation

Project Date(s): Summer 2000
Project Site: Moore Elementary
Project Methodology: Install upgraded energy efficient insulation during re-roofing project.
Estimated Payback: 7 Years
Comments: None.

Project 73

Optimize HVAC System

Project Date(s): Summer 2000
Project Site: Poudre High School
Project Methodology: Optimize HVAC controls on select units per HVAC analysis results.
Estimated Payback: 1 Year
Comments: None.

Project 74

Raw Water Study

Project Date(s): Fall 2000
Project Site: Lincoln Junior High
Project Methodology: Reduce domestic use of water during irrigation season.
Estimated Payback: N/A
Comments: City of Fort Collins will share costs up to \$1,500.00

Project 75

Raw Water

Project Date(s): Summer 2000
Project Site: Lopez Elementary
Project Methodology: Reduce domestic use of water during irrigation season.
Estimated Payback: 7 Years
Comments: None.

Project 76

Raw Water

Project Date(s): Summer 2000
Project Site: CLP Elementary & CLP Junior High
Project Methodology: Reduce domestic use of water during irrigation season.
Estimated Payback: 1 Year
Comments: Joint project with the City of Fort Collins

Project 77

Data Logger Equipment

Project Date(s): Fall 2000
Project Site: District Wide
Project Methodology: Verify energy use district wide.
Estimated Payback: less than 1 year
Comments: None.

Project 78

Interval Data Study

Project Date(s): Spring 2001
Project Site: District Wide
Project Methodology: Verify energy use district wide.
Estimated Payback: N/A
Comments: None.

Project 79

Lighting Retrofit

Project Date(s): Spring 2001
Project Site: Irish Elementary
Project Methodology: All lights converted to electronic ballasts and T-8s.
Estimated Payback: 4.6 years
Comments: None.

Project 80

Lighting Retrofit

Project Date(s): Spring 2001
Project Site: Red Feather Elementary
Project Methodology: All lights converted to electronic ballasts and T-8s.
Estimated Payback: 8.9 years
Comments: None.



Energy Efficient Projects

Section 4 - Rate Negotiations and Specialized Contracts

Rate Negotiation and Specialized Contracts 1

Transport Gas Contract Savings

Project Date(s): Ongoing, began in 1996
Project Site: District Wide
Project Methodology: Purchased wholesale gas at a reduced cost through specialized contract with multiple school districts in Colorado.
Comments: None.

Rate Negotiation and Specialized Contracts 2

City of Fort Collins Rate Negotiation

Project Date(s): Ongoing, began in 1998
Project Site: District Wide
Project Methodology: Negotiated a reduced rate with the City of Fort Collins Utilities
Comments: Savings figures do not include Fort Collins High School.



Energy Efficient Projects

Section 5 – Project and Funding Summary

Project information and descriptions can be found in Section 3 – Completed Project Summaries

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1994 Project 1	1994 Project 2	1994 Project 3	1994 Project 4	1994 Project 5
	Purchase of Faser Software/ Hardware	Technical Audit Grant	Audit of City of Fort Collins Water Bills	Purchase of Water Shares	SSC Rate Schedule Change

	Project Budgets	10,500.00	19,800.00	0.00	0.00	0.00
Estimated Revenues						
	Grant(s)	0.00	9,900.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	9,900.00	0.00	0.00	0.00
Estimated Costs						
	District Costs	10,500.00	14,400.00	0.00	0.00	0.00
	Total Costs	10,500.00	14,400.00	0.00	0.00	0.00
Estimated Savings						
	One Time	0.00	0.00	26,524.00	0.00	0.00
	Ongoing Annual	0.00	0.00	4,000.00	11,500.00	700.00
	Total Savings	0.00	0.00	30,524.00	11,500.00	700.00
	Project Ongoing Annual Savings	0.00	0.00	4,000.00	11,500.00	700.00
	Net Ongoing Annual Savings	0.00	0.00	4,000.00	15,500.00	16,200.00

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1994 Project 6	1994 Project 7	1994 Project 8	1995 Project 9	1995 Project 10
	McGraw Elementary Rate Schedule Change	Purchase Transport Gas	Faser Billing Errors	SSC Lighting Retrofit	Boltz JH Rooftop Unit Retrofit

	Project Budgets	0.00	0.00	0.00	36,000.00	35,261.00
Estimated Revenues						
	Grant(s)	0.00	0.00	0.00	10,269.00	33,730.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	0.00	0.00	10,269.00	33,730.00
Estimated Costs						
	District Costs	0.00	1,000.00	0.00	0.00	1,530.00
	Total Costs	0.00	1,000.00	0.00	0.00	1,530.00
Estimated Savings						
	One Time	0.00	0.00	5,725.00	0.00	0.00
	Ongoing Annual	500.00	0.00	0.00	11,122.00	7,000.00
	Total Savings	500.00	0.00	5,725.00	11,122.00	7,000.00
	Project Ongoing Annual Savings	500.00	0.00	0.00	11,122.00	7,000.00
	Net Ongoing Annual Savings	16,700.00	16,700.00	16,700.00	27,822.00	34,822.00

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1995 Project 11 Lincoln JH Energy Management System Installation	1995 Project 12 Technical Audit Grant	1995 Project 13 Faser Billing Errors	1995 Project 14 Public Service Rebate	1995 Project 15 Purchase Transport Gas
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	Project Budgets	87,000.00	21,200.00	0.00	0.00	0.00
Estimated Revenues						
	Grant(s)	39,675.00	10,600.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	72,116.94	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	39,675.00	10,600.00	0.00	72,116.94	0.00
Estimated Costs						
	District Costs	39,675.00	10,600.00	0.00	0.00	520.45
	Total Costs	39,675.00	10,600.00	0.00	0.00	520.45
Estimated Savings						
	One Time	0.00	0.00	13,769.00	0.00	0.00
	Ongoing Annual	19,278.00	0.00	0.00	0.00	0.00
	Total Savings	19,278.00	0.00	13,769.00	0.00	0.00
	Project Ongoing Annual Savings	19,278.00	0.00	0.00	0.00	0.00
	Net Ongoing Annual Savings	54,100.00	54,100.00	54,100.00	54,100.00	54,100.00

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1995 Project 16 Training of Energy/ Security Supervisor	1995 Project 17 Energy Action Team Program	1995 Project 18 Blevins JH Boiler Insulation	1996 Project 19 Lincoln JH Lighting Retrofit	1996 Project 20 Mountain View Annex Exit Signs
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	Project Budgets	12,000.00	5,000.00	5,000.00	50,000.00	1,000.00
Estimated Revenues						
	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	5,080.00	0.00
	Other	0.00	7,000.00	0.00	0.00	0.00
	Total Resources	0.00	7,000.00	0.00	5,080.00	0.00
Estimated Costs						
	District Costs	4,014.58	2,489.54	2,321.70	38,190.52	1,000.00
	Total Costs	4,014.58	2,489.54	2,321.70	38,190.52	1,000.00
Estimated Savings						
	One Time	0.00	0.00	0.00	0.00	0.00
	Ongoing Annual	0.00	0.00	0.00	17,940.00	100.00
	Total Savings	0.00	0.00	0.00	17,940.00	100.00
	Project Ongoing Annual Savings	0.00	0.00	0.00	17,940.00	100.00
	Net Ongoing Annual Savings	54,100.00	54,100.00	54,100.00	72,040.00	72,140.00

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1996 Project 21 Moore Gym Lighting	1996 Project 22 Bennett Gym Lighting	1996 Project 23 PHS Wrestling Room Lighting	1996 Project 24 Lincoln JH Hot Water Retrofit	1996 Project 25 Bauder Hot Water Retrofit
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	Project Budgets	5,500.00	5,500.00	5,500.00	10,000.00	10,000.00
Estimated Revenues						
	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs						
	District Costs	2,667.13	2,539.66	1,688.35	9,008.53	8,189.06
	Total Costs	2,667.13	2,539.66	1,688.35	9,008.53	8,189.06
Estimated Savings						
	One Time	0.00	0.00	0.00	0.00	0.00
	Ongoing Annual	1,000.00	1,000.00	1,500.00	1,000.00	2,000.00
	Total Savings	1,000.00	1,000.00	1,500.00	1,000.00	2,000.00
	Project Ongoing Annual Savings	1,000.00	1,000.00	1,500.00	1,000.00	2,000.00
	Net Ongoing Annual Savings	73,140.00	74,140.00	75,640.00	76,640.00	78,640.00

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1996 Project 26 Modular #4 Heating Retrofit	1996 Project 27 Modular #5 Heating Retrofit	1996 Project 28 Modular #11 Heating Retrofit	1996 Project 29 FCHS Technical Audit	1997 Project 30 FCHS Disconnect Lighting
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	Project Budgets	3,500.00	3,500.00	3,500.00	0.00	1,667.00
Estimated Revenues						
	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs						
	District Costs	2,711.67	2,496.67	1,676.67	7,500.00	193.25
	Total Costs	2,711.67	2,496.67	1,676.67	7,500.00	193.25
Estimated Savings						
	One Time	0.00	0.00	0.00	0.00	0.00
	Ongoing Annual	1,000.00	1,000.00	1,000.00	0.00	200.00
	Total Savings	1,000.00	1,000.00	1,000.00	0.00	200.00
	Project Ongoing Annual Savings	1,000.00	1,000.00	1,000.00	0.00	200.00
	Net Ongoing Annual Savings	79,640.00	80,640.00	81,640.00	81,640.00	81,840.00

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1997 Project				
	31	32	33	34	35
	PHS	RMHS	CLP JH	Beattie	Boltz JH
	Disconnect	Disconnect	Lighting	Automate	Lighting
	Lighting	Lighting	Retrofit	Irrigation	Retrofit
				System	

	Project Budgets	1,667.00	1,667.00	20,000.00	3,000.00	50,000.00
Estimated Revenues	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs	District Costs	193.25	229.00	19,930.00	2,748.85	53,167.00
	Total Costs	193.25	229.00	19,930.00	2,748.85	53,167.00
Estimated Savings	One Time	0.00	0.00	0.00	0.00	0.00
	Ongoing Annual	200.00	200.00	2,310.00	500.00	17,313.00
	Total Savings	200.00	200.00	2,310.00	500.00	17,313.00
	Project Ongoing Annual Savings	200.00	200.00	2,310.00	500.00	17,313.00
	Net Ongoing Annual Savings	82,040.00	82,240.00	84,550.00	85,050.00	102,363.00

Energy Efficiency Team Section 5 - Project and Funding Summary

1997 Project	1997 Project	1997 Project	1997 Project	1997 Project
36	37	38	39	40
Modular #20 Heating Retrofit	Harris Annex Heating Retrofit	Dunn Roof Insulation	Irish Roof Insulation	SSC Roof Insulation

	Project Budgets	5,000.00	5,000.00	23,309.00	7,394.00	9,292.00
Estimated Revenues	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs	District Costs	2,711.67	2,711.67	23,309.00	7,394.00	9,292.00
	Total Costs	2,711.67	2,711.67	23,309.00	7,394.00	9,292.00
Estimated Savings	One Time	0.00	0.00	0.00	0.00	0.00
	Ongoing Annual	1,000.00	1,000.00	3,329.86	1,056.29	1,327.43
	Total Savings	1,000.00	1,000.00	3,329.86	1,056.29	1,327.43
	Project Ongoing Annual Savings	1,000.00	1,000.00	3,329.86	1,056.29	1,327.43
	Net Ongoing Annual Savings	103,363.00	104,363.00	107,692.86	108,749.14	110,076.57

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1997 Project 41 Whse 4 &Plumbing Shop Solatubes	1997 Project 42 Webber JH Technical Audit	1997 Project 43 RMHS Technical Audit	1997 Project 44 Purchase Transport Gas	1997 Project 45 FCHS Irrigation System Motor Upgrade
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	Project Budgets	8,000.00	10,000.00	20,000.00	0.00	17,000.00
Estimated Revenues						
	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs						
	District Costs	7,821.99	8,278.00	17,973.00	1,000.00	16,742.53
	Total Costs	7,821.99	8,278.00	17,973.00	1,000.00	16,742.53
Estimated Savings						
	One Time	0.00	0.00	0.00	0.00	0.00
	Ongoing Annual	0.00	0.00	0.00	0.00	5,099.00
	Total Savings	0.00	0.00	0.00	0.00	5,099.00
	Project Ongoing Annual Savings	0.00	0.00	0.00	0.00	5,099.00
	Net Ongoing Annual Savings	110,076.57	110,076.57	110,076.57	110,076.57	115,175.57

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1998 Project 46 SSC Energy Management System	1998 Project 47 City of Fort Collins Rate Negotiation	1998 Project 48 Boltz JH Energy Management System	1998 Project 49 Lopez Electric Water Heater Retrofit	1998 Project 50 Denver Burglar Alarm Buyouts
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	Project Budgets	75,000.00	5,000.00	48,000.00	1,000.00	10,000.00
Estimated Revenues	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs	District Costs	75,000.00	3,740.00	34,590.00	908.00	9,199.00
	Total Costs	75,000.00	3,740.00	34,590.00	908.00	9,199.00
Estimated Savings	One Time	0.00	0.00	0.00	0.00	0.00
	Ongoing Annual	12,445.00	0.00	9,921.00	1,974.00	3,600.00
	Total Savings	12,445.00	0.00	9,921.00	1,974.00	3,600.00
	Project Ongoing Annual Savings	12,445.00	0.00	9,921.00	1,974.00	3,600.00
	Net Ongoing Annual Savings	127,620.57	127,620.57	137,541.57	139,515.57	143,115.57

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1998 Project 51 Transport Gas Expansion	1998 Project 52 Webber Lighting Retrofit	1998 Project 53 RMHS Gym Lighting Retrofit	1998 Project 54 Leshner JH Gym Lighting Retrofit	1998 Project 55 Irish Gym Lighting Retrofit
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	Project Budgets	2,000.00	16,000.00	26,000.00	6,000.00	6,000.00
Estimated Revenues						
	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs						
	District Costs	1,870.00	28,561.00	24,430.00	6,000.00	5,156.00
	Total Costs	1,870.00	28,561.00	24,430.00	6,000.00	5,156.00
Estimated Savings						
	One Time	0.00	0.00	0.00	0.00	0.00
	Ongoing Annual	0.00	8,060.00	3,060.00	1,000.00	1,000.00
	Total Savings	0.00	8,060.00	3,060.00	1,000.00	1,000.00
	Project Ongoing Annual Savings	0.00	8,060.00	3,060.00	1,000.00	1,000.00
	Net Ongoing Annual Savings	143,115.57	151,175.57	154,235.57	155,235.57	156,235.57

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1998 Project	1998 Project	1998 Project	1998 Project	1999 Project
	56	57	58	59	60
	Riffenburgh Gym Lighting Retrofit	Tavelli Gym Lighting Retrofit	Bauder Gym Lighting Retrofit	O'DeaGym Lighting Retrofit	CLP JH Gym Lighting Retrofit

	Project Budgets	6,000.00	6,000.00	6,000.00	6,000.00	3,000.00
Estimated Revenues	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs	District Costs	4,938.00	5,200.00	5,200.00	5,032.00	2,576.00
	Total Costs	4,938.00	5,200.00	5,200.00	5,032.00	2,576.00
Estimated Savings	One Time	0.00	0.00	0.00	0.00	0.00
	Ongoing Annual	1,000.00	1,000.00	1,000.00	1,000.00	361.00
	Total Savings	1,000.00	1,000.00	1,000.00	1,000.00	361.00
	Project Ongoing Annual Savings	1,000.00	1,000.00	1,000.00	1,000.00	361.00
	Net Ongoing Annual Savings	157,235.57	158,235.57	159,235.57	160,235.57	160,596.57

Energy Efficiency Team

Section 5 - Project and Funding Summary

	1999 Project 61 Lopez Lighting Retrofit	1999 Project 62 Utility Manager Purchase	1999 Project 63 Riffenburgh Raw Water	1999 Project 64 Security System Buyouts	1999 Project 65 Boltz Modular Lighting Retrofit
Project Budgets	15,000.00	5,100.00	3,500.00	30,000.00	400.00
Estimated Revenues					
Grant(s)	0.00	0.00	0.00	0.00	0.00
Rebate	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00
Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs					
District Costs	13,607.00	5,100.00	3,183.69	30,000.00	400.00
Total Costs	13,607.00	5,100.00	3,183.69	30,000.00	400.00
Estimated Savings					
One Time	0.00	0.00	0.00	0.00	0.00
Ongoing Annual	3,790.00	0.00	4,593.28	10,320.00	88.00
Total Savings	3,790.00	0.00	4,593.28	10,320.00	88.00
Project Ongoing Annual Savings	3,790.00	0.00	4,593.28	10,320.00	88.00
Net Ongoing Annual Savings	164,386.57	164,386.57	168,979.85	179,299.85	179,387.85

Energy Efficiency Team

Section 5 - Project and Funding Summary

	2000 Project 66 Stove Prairie Lighting Retrofit	2000 Project 67 Beattie Energy Management System	2000 Project 68 CLP Elementary Lighting Retrofit	2000 Project 69 Eyestone Lighting Retrofit	2000 Project 70 Fullana Lighting Retrofit
Estimated Revenues					
Project Budgets	3,000.00	18,000.00	18,000.00	20,000.00	7,000.00
Grant(s)	0.00	0.00	0.00	0.00	0.00
Rebate	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00
Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs					
District Costs	2,325.00	16,590.00	18,000.00	20,000.00	7,000.00
Total Costs	2,325.00	16,590.00	18,000.00	20,000.00	7,000.00
Estimated Savings					
One Time	0.00	0.00	0.00	0.00	0.00
Ongoing Annual	387.00	4,000.00	5,430.00	6,200.00	1,220.00
Total Savings	387.00	4,000.00	5,430.00	6,200.00	1,220.00
Project Ongoing Annual Savings	387.00	4,000.00	5,430.00	6,200.00	1,220.00
Net Ongoing Annual Savings	179,774.85	183,774.85	189,204.85	195,404.85	196,624.85

Energy Efficiency Team

Section 5 - Project and Funding Summary

	2000 Project 71 Fullana Hot Water Retrofit	2000 Project 72 Moore Roof Insulation	2001 Project 73 PHS HVAC Analysis	2001 Project 74 Lincoln JH Raw Water Study	2001 Project 75 Lopez Raw Water
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	Project Budgets	4,000.00	13,000.00	15,420.00	6,130.00	1,150.00
Estimated Revenues	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	1,500.00	0.00
	Total Resources	0.00	0.00	0.00	1,500.00	0.00
Estimated Costs	District Costs	3,792.00	13,000.00	9,420.00	8,005.00	1,130.00
	Total Costs	3,792.00	13,000.00	9,420.00	8,005.00	1,130.00
Estimated Savings	One Time	0.00	0.00	0.00	0.00	0.00
	Ongoing Annual	2,121.00	2,000.00	6,500.00	0.00	1,200.00
	Total Savings	2,121.00	2,000.00	6,500.00	0.00	1,200.00
	Project Ongoing Annual Savings	2,121.00	2,000.00	6,500.00	0.00	1,200.00
	Net Ongoing Annual Savings	198,745.85	200,745.85	207,245.85	207,245.85	208,445.85

Energy Efficiency Team

Section 5 - Project and Funding Summary

	2001 Project 76 CLP Elem. & CLP JH Raw Water	2001 Project 77 Data Logger Equipment	2001 Project 78 Interval Data Study	2001 Project 79 Irish Lighting Retrofit	2001 Project 80 Red Feather Lighting Retrofit
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	Project Budgets	11,500.00	3,000.00	6,000.00	23,000.00	3,300.00
Estimated Revenues	Grant(s)	0.00	0.00	0.00	0.00	0.00
	Rebate	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00
	Total Resources	0.00	0.00	0.00	0.00	0.00
Estimated Costs	District Costs		3,105.00	6,000.00	16,959.75	4,075.00
	Total Costs	0.00	3,105.00	6,000.00	16,959.75	4,075.00
Estimated Savings	One Time	0.00	52,000.00	0.00	0.00	0.00
	Ongoing Annual	6,000.00	5,000.00	0.00	4,980.00	370.00
	Total Savings	6,000.00	57,000.00	0.00	4,980.00	370.00
	Project Ongoing Annual Savings	6,000.00	5,000.00	0.00	4,980.00	370.00
	Net Ongoing Annual Savings	214,445.85	219,445.85	219,445.85	224,425.85	224,795.85

Energy Efficiency Team

Section 5 - Project and Funding Summary

		Project Totals	Rate Negotiation 1	Rate Negotiation 2	Department Totals
			Transport Gas Contract Savings 12/1/96 - 8/1/01	City of Fort Collins Rate Change Savings 3/1/98 - 10/1/01	
	Project Budgets	871,757.00			871,757.00
Estimated Revenues					
	Grant(s)	104,174.00			104,174.00
	Rebate	77,196.94			77,196.94
	Other	7,000.00			7,000.00
	Total Resources	188,370.94			188,370.94
Estimated Costs					
	District Costs	683,812.43			683,812.43
	Total Costs	683,812.43			683,812.43
Estimated Savings					
	One Time	46,018.00			46,018.00
	Ongoing Annual	200,745.85			200,745.85
	Total Savings	246,763.85	283,851.03	430,988.04	961,602.92
	Project Ongoing Annual Savings			Dept. Net Available	466,161.43
	Net Ongoing Annual Savings	224,795.85			

Mission

*Poudre School District
will promote a safe
environment while leading
an accountable learning
community which challenges
all students to achieve, to
their highest potential, the
knowledge, skills and
commitment needed to be
fulfilled, productive members
of society in a changing world.*



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