

**BOARD OF EDUCATION
BEEVILLE INDEPENDENT SCHOOL DISTRICT**

Agenda Item No. _____

Date: June 20, 2006

Subject: Discussion and possible action to
Energy Management Program

Submitted by: Brad Norvell

Related Pages: 10

Supt's Approval:

INFORMATION

BACKGROUND INFORMATION:

Brad Norvell has administered the Energy Management Program since August 2005. Brad will provide an update this evening on this project.

ITEMS ADDRESSED:

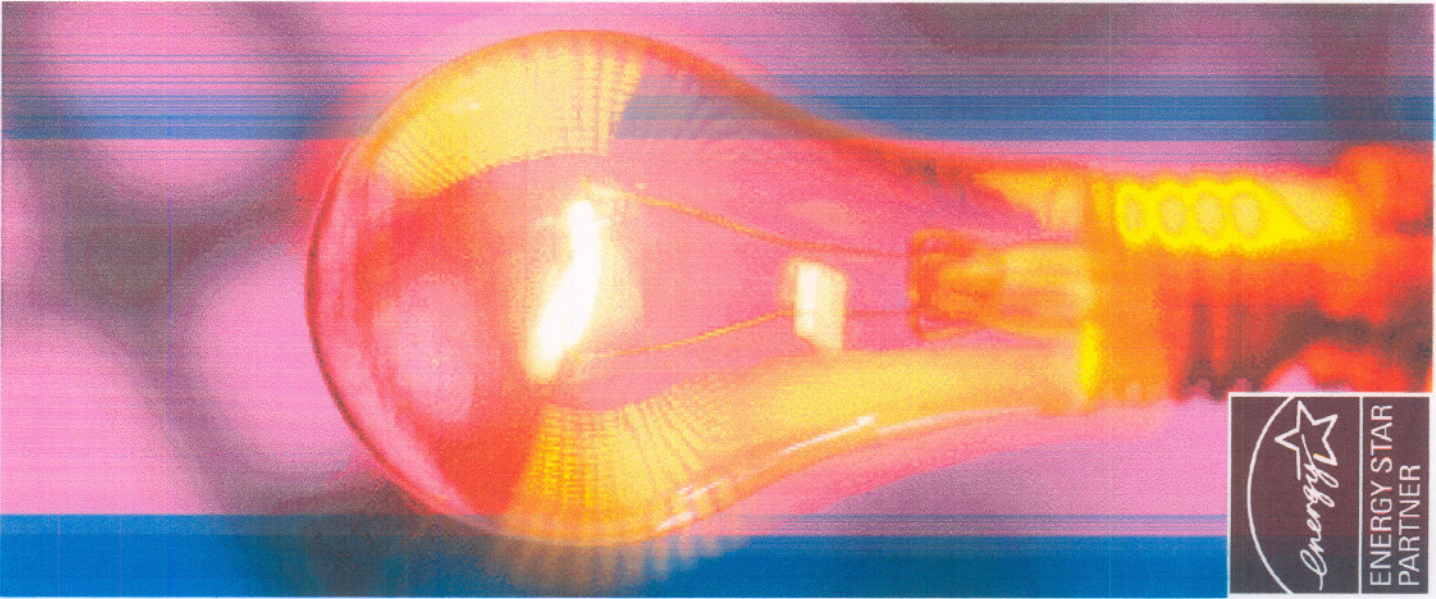
6 Month update on Energy Program

RECOMMENDED ACTION:

None

BUDGETARY INFORMATION:

None



Beeville ISD

Energy Update

6-Month Report
September 2005 – February 2006





Primary Goals

Energy Management Program

- Maintain Comfort & Safety in Occupied Areas
 - Coordinate usage of facilities and monitor operational efficiency of equipment vs. design.
- Eliminate Energy Waste
 - Audit buildings during unoccupied times.
 - Monitor building usage during occupied times
 - Track & analyze consumption for building efficiency
 - Use web-based tools & diagnostic loggers to track waste
 - Maintain energy policy and guidelines
- Save Dollars
 - Minimize consumption and demand charges
 - Evaluate usage trends for abnormalities

Comparing Apples to Apples...

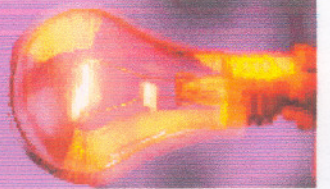
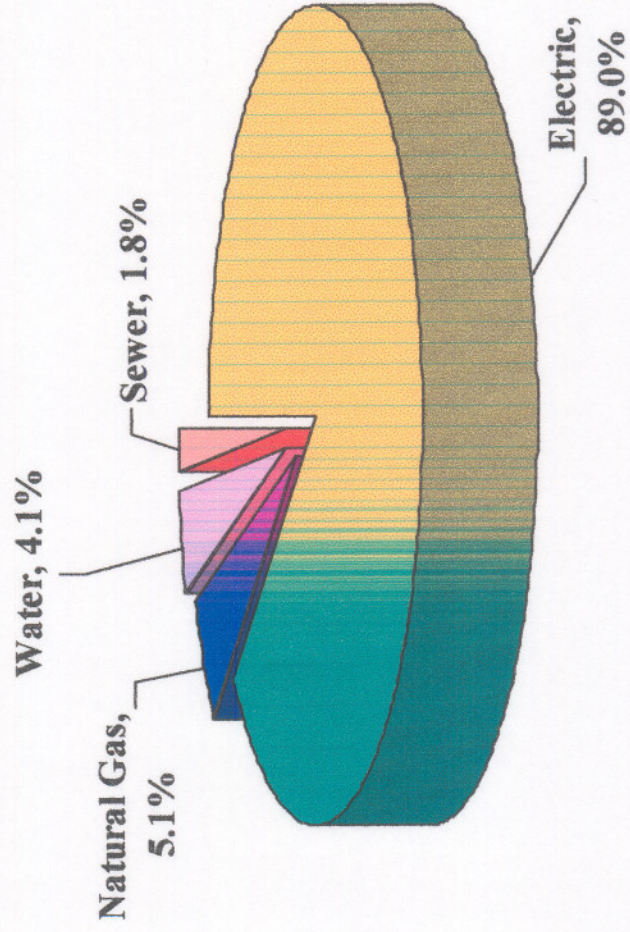
In order to make a valid comparison between consumption in the Base Year and consumption in a Savings Year certain criteria must be taken into account.

- ❖ Changes in Weather
- ❖ Changes in Building Square Footage
- ❖ Differences in the length of the Billing Periods
- ❖ Special Adjustments (changes in equipment or programs)

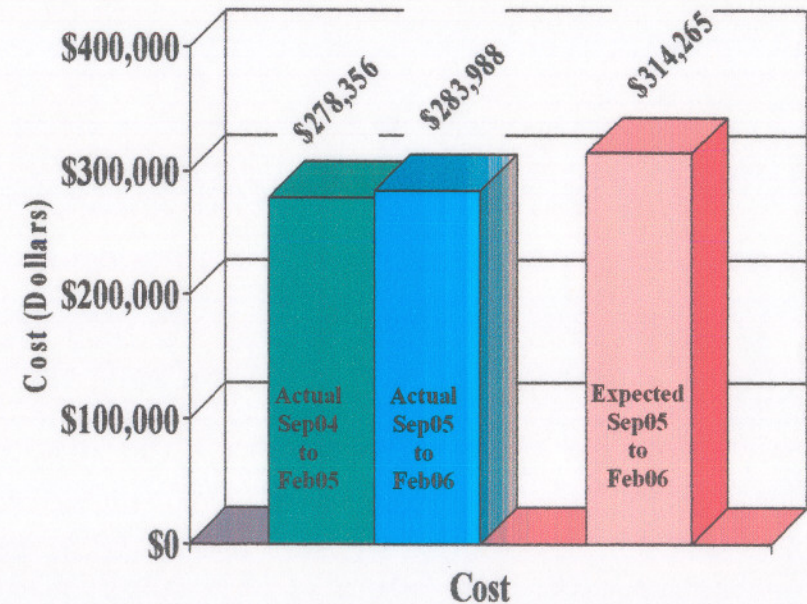
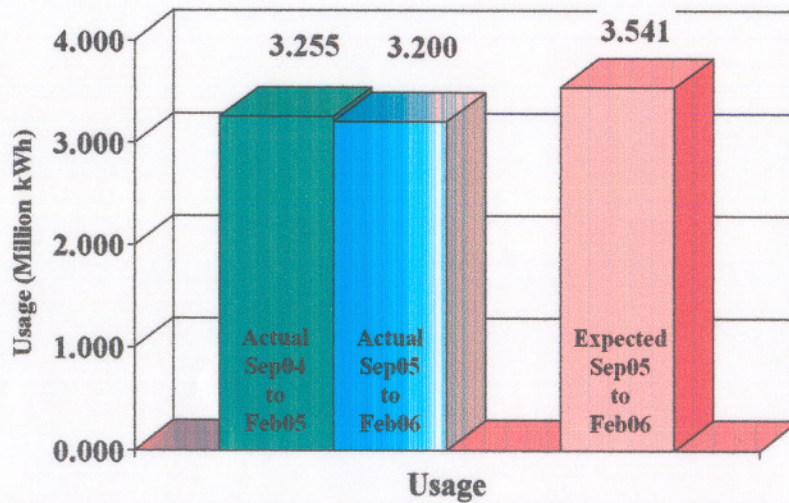
The accounting program adjusts the Base Year consumption to reflect these changes and an Apples to Apples comparison is achieved.



Total Utility Cost Distribution (Year 1 – 6 Months)



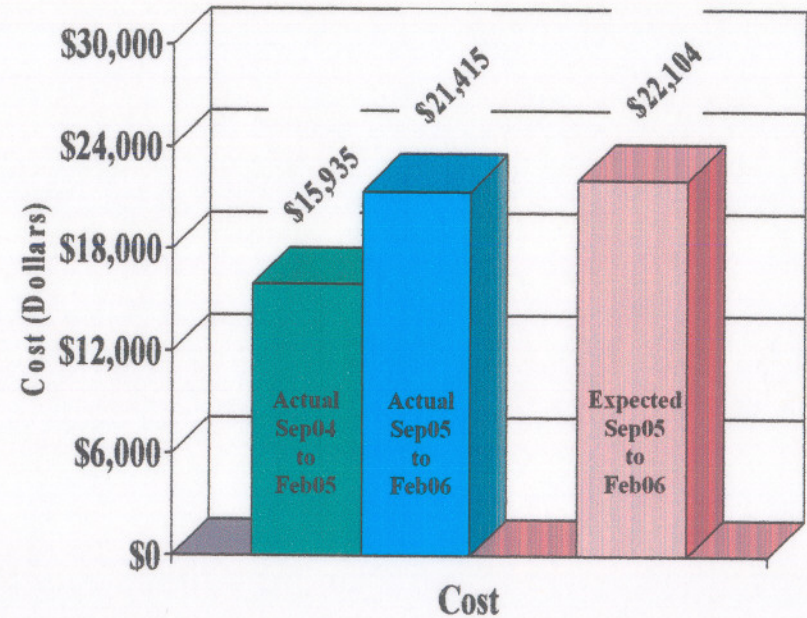
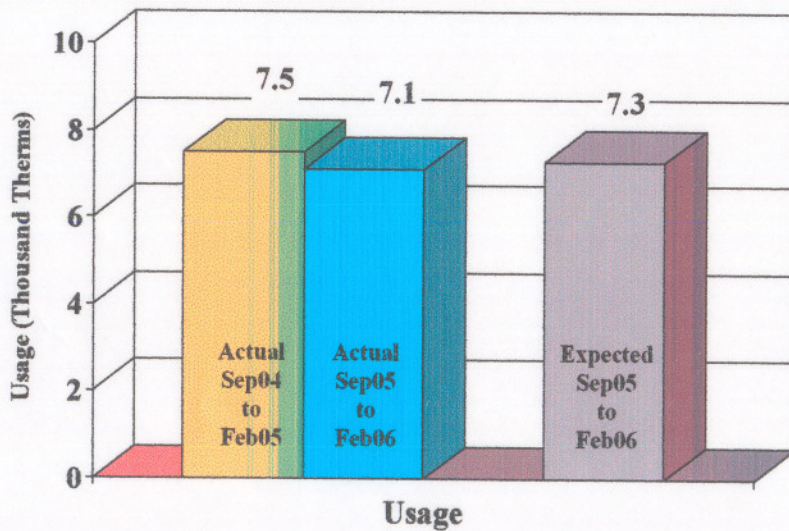
Electric Utility Comparison (Year 1 – 6 Months)



- Average Unit Cost Increased 3.8%
- Total Avoided Use = 341,160 kWh
- Expected Cost minus Actual Cost = \$30,277



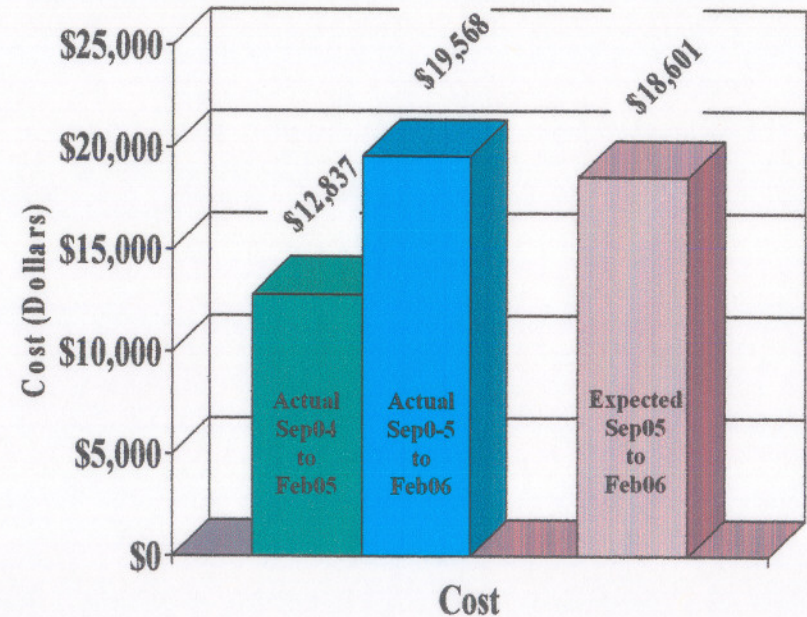
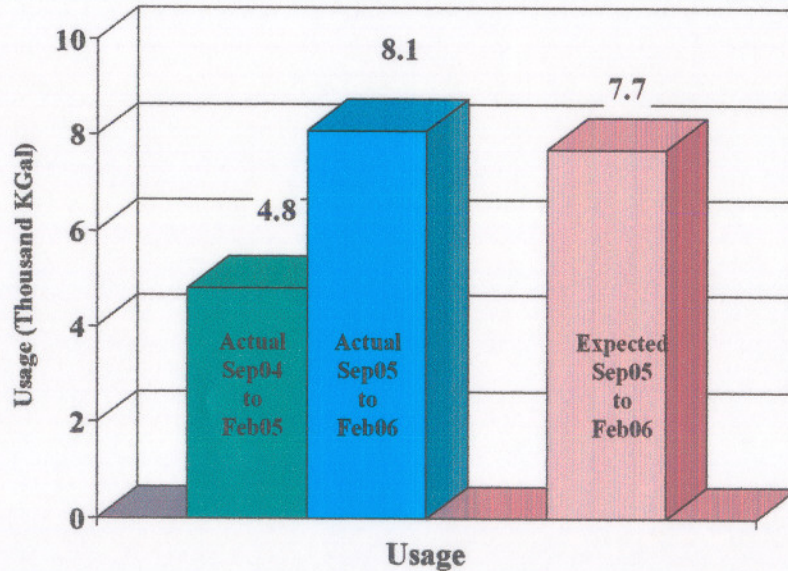
Natural Gas Utility Comparison (Year 1 – 6 Months)



- Average Unit Cost Increased 42.8%
- Total Avoided Use = 228 Therms
- Expected Cost minus Actual Cost = \$690



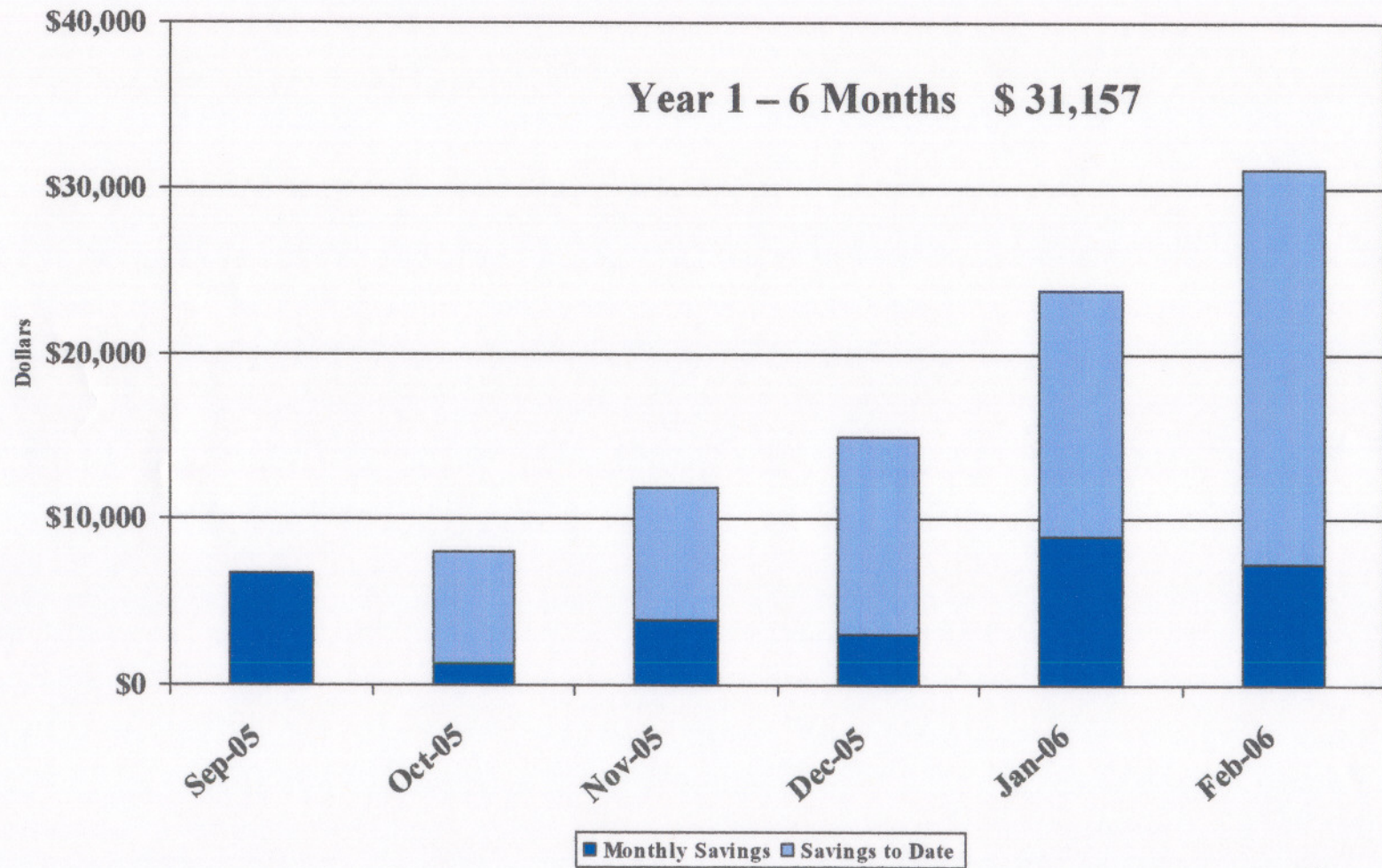
Water Utility Comparison (Year 1 – 6 Months)



- Average Unit Cost Decreased 9.0%
- Total Avoided Use = 400 KGal Increase
- Expected Cost minus Actual Coat = \$967 Increase
- Sewer Costs Dropped \$1,160



Monthly/Total Cost Avoidance (Year 1 – 6 Months)



Environmental Benefits

The EPA estimates that every kilowatt-hour (kWh) of avoided electricity use prevents the emission of the following:

1.5 pounds of carbon dioxide

5.8 grams of sulfur dioxide

2.5 grams of nitrogen oxides.

Our District has saved over 340,000 kWh in a 6 month period.

These savings are equal to:

512,000 pounds of carbon dioxide emissions
being prevented, or

48 automobiles being removed from the
highways annually, or

99 acres of trees being planted.



Into the Future...

- Continue to Communicate – Educate – Motivate!!
- Monitor and Manage Energy consumption for renovations and additions
- Continue to evaluate additional energy saving opportunities

