

Facilities Services History of Sustainability

Gettysburg College has been concerned about the impact our facilities operations has on the environment for many years. Unfortunately tracking this data has only occurred since about 1995. When we think of sustainable initiatives by Facilities Services, it can be broken down into two categories: Operations and Energy.

Sustainable Operations:

There are numerous examples of how Facilities Services has been a leader in sustainable initiatives over the years. For ease of presentation I have summarized these by department and have identified everything we do from sustainable purchases to program initiatives.

Recycling and Reuse Initiatives:

- 1998 Established campus wide recycling program. Facilities funded 2 part time student intern positions to begin this initiative. Program was originally responsible for paper and commingled recycling in residence halls, academic and administrative buildings and tracking of progress..
- Today we recycle the following: paper, plastic, aluminum cans, glass, paper, newspaper, magazines, cardboard, food waste, motor oil, food oil, toner cartridges, batteries, florescent lights, wood skids, and scrap metal.
- 2001 Began a partnership with the United Way of Adams County to distribute unwanted College furniture to over 50 of their local organizations 3 – 4 times a year. To date we have donated over 40 tons of items for reuse through this program.
- 2004 Began another partnership with the United Way of Adams County where we give the students and college to donate unwanted items as they are moving out in May to the United Way. Facilities Services named the program, Gettysburg United Give it Up for Good. United Way sets up a sale in Bream Gym to sell the items back to the community at very reasonable prices. To date this program has diverted nearly 50 tons from our waste stream and generated over \$30,000 for the United Way.
- 2006 in addition to recycling containers in the student rooms we also tested out the impact of placing trash cans in 2 first year student halls. We have seen about a 25% increase in recycling collections. We are going to run some cost numbers to determine whether we should expand in 2007
- 2006 Began production of bio – diesel with our recycling interns. We are researching the cost of expansion to make enough quantities to support the campus diesel fleet.
- 2006 Composting Initiative. Environmental Studies established the Painted Turtle Garden on campus. Facilities Services financially supports the garden through donation of the intern's time to manage the compost collection and provides the vehicle to pickup the necessary items for composting on a daily basis.
- 2007 Competed in the National Recyclemania competition and placed 53rd out of 200 College's and Universities. We collected over 16 pounds of recycle material per campus member in a 10 week period. We will compete again next year!!

- Awards:
 - 1998 Gettysburg Chamber of Commerce Environmental Steward Award
 - 2002 United Way Community Builder Award
 - 2005 Professional Recyclers of Pennsylvania Waste Watchers Award for Recycling.
 - 2006 Professional Recyclers of Pennsylvania Waste Watchers Award for Recycling, Reuse and Special Collections.
 - 2007 United Way Gettysburg United Give it Up for Good Award

Housekeeping:

- Housekeepers collect recycled materials from offices and public areas on a daily basis.
- 90% of the cleaning supplies are Green Cleaning Chemicals. Plan to be 100% by 2008.
- Purchase recycled cloths for cleaning purposes. Wash these internally to reduce waste.

Grounds:

- Annually increase campus tree and shrub plantings to contribute to oxygen production, carbon sequestration and reduce heat island effect.
- Reduced use of pesticides by managing a plant health care program – This includes the use of biological controls such as the purple martin colony for mosquitoes, lady bird beetles for aphids, and praying mantis for spider mites; cultural controls such as mulching for weed suppression or setting threshold levels of acceptable pest damage; and also selecting pest resistant species so spraying is unnecessary.

Mechanical and Structural Trades:

- Switched campus from t12 lamps to t8 or t5 to reduce electric consumption.
- Switched from incandescent to compact fluorescent lights, where possible.
- Toilets and urinals are low flow everywhere on campus. Initiative began in 1996.
- Energy Management - use our Trane System to control energy when building is not being occupied.
- Winter Break Curtailment - take advantage of the College holidays by reducing the heat to campus buildings, while still protecting the college's property investment.
- Purchase energy star rated appliances for student rooms.

Capital Projects:

- Building materials are selected with energy efficiency, green products and recycled materials, when possible.
- Examples of sustainable products we have used in recent projects:
 - Majestic - Green roof and farm raised Lyptus wood.
 - Attic - Cork floor, recycled rubber floor and Tetum panels
 - All renovations- Advantec sub flooring, energy efficient windows/roof and lighting.
 - Shirk Field - used recycled rubber as the infill on the turf.
- Look for opportunities to recycle or reuse items from buildings we are renovating:
 - Metal from demolition
 - Furniture
 - Old ceiling tiles

Laundry and Microfridges:

- 2005 College installed new energy efficient MayTag Neptune washers and dryers. The units are saving the College up to 50% on energy usage by reducing the amount of water needed to operate the unit and by increasing the unit size which reduces the quantity of loads.
- Since 2001 the college has been actively replacing the campus Microfridges with energy star rated units. Each unit is designed to reduce energy consumption by 20%. Units also have an energy saving safety feature that turns off the compressor when the microwave is operating. College owns over 800 units.

Transportation Services:

- 2001 Instituted shuttle program to mass transit areas to reduce our carbon impact on the environment.
- 2001 Purchased a 29 passenger bus to reduce the amount of vehicles traveling at one time on larger trips.
- Fleet - purchase fuel efficient vehicles when replacing the fleet. Larger vans have gone to diesel vehicles.

As you can see, Facilities Services has been the leader in many initiatives through our operations. We continue to look for other opportunities to expand our initiatives in the future.

Energy Management:

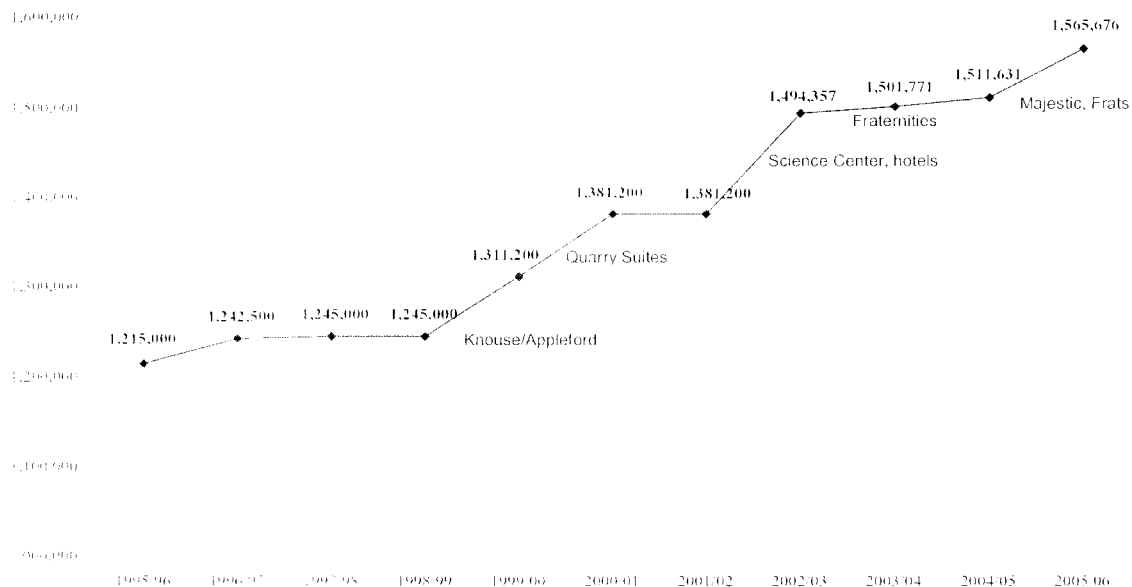
Gettysburg College has been concerned about energy management since the last 1980's and has been actively tracking the consumption figures since 1995.

There are two benchmarks the College has been analyzing both internal and external.

- Internally - Compares annual consumption levels against previous years.
- Externally - Periodically against its peers.

Gettysburg has been transformed over the last 10+ years increasing the campus Gross Square Feet by 28.8% from 1,215,000 in FY '06 to 1,565,676 in FY '06. The College began in FY '03 purchasing electric power from wind for a total of 4,000,000 Kilowatt Hours.

Campus GSF

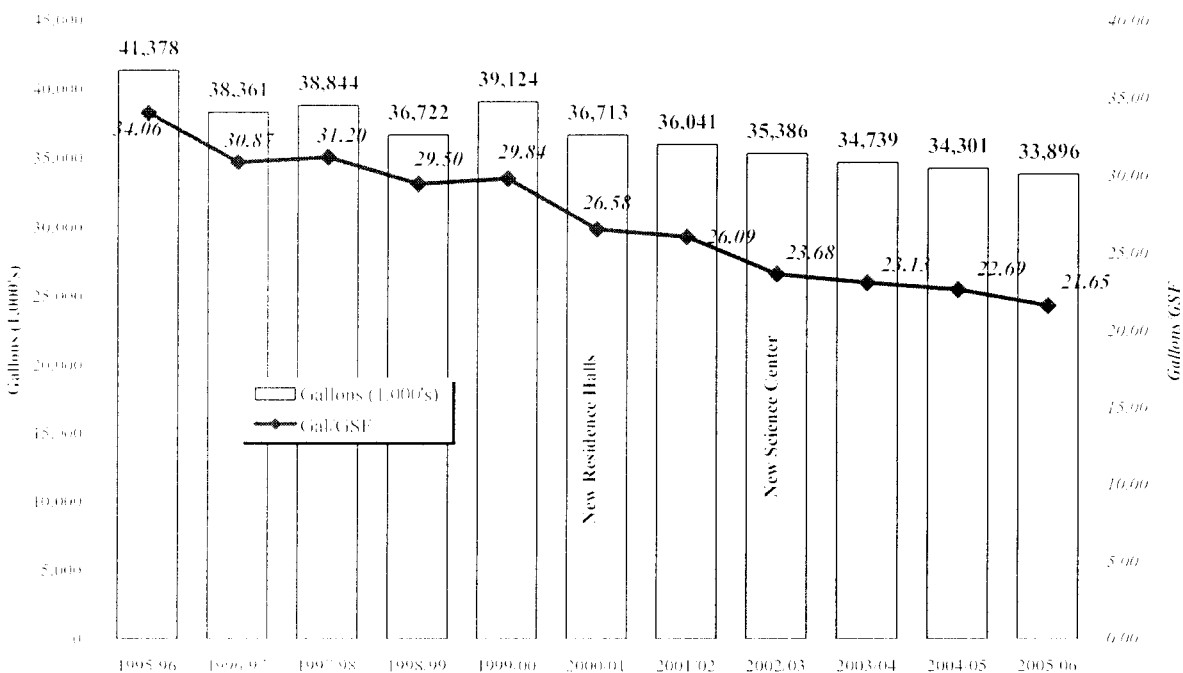


The utilities at Gettysburg are split between those used to heat and cool the campus and water consumption. Fossil Fuel (Oil and Natural Gas) and electricity are used to heat and cool the campus. In FY '96 over 92% of the campus heating and cooling load was at the central plant and the main electric meter as the campus has grown and energy management programs have been expanded at the central locations this percentage has declined to 85% of the utilities consumed at the central plant and the main electric meter.

INTERNAL COMPARISONS

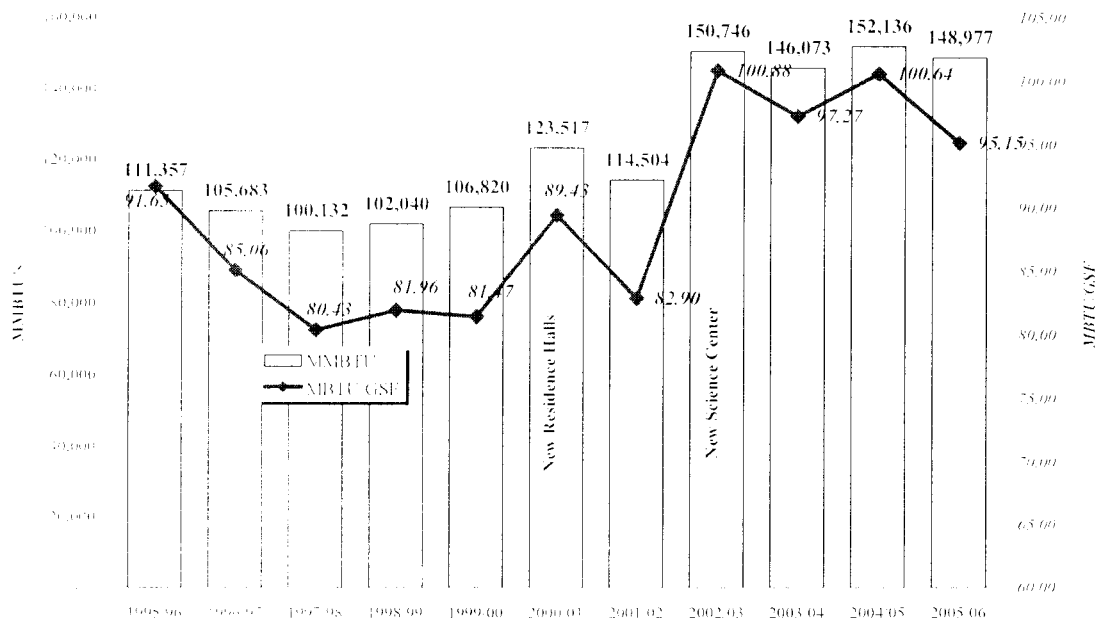
Gettysburg has made significant progress over the last 10+ years in conserving water. Overall water consumption on the campus has decreased by 18.1% from 41,378,000 Gallons to 33,896,000 Gallons since FY '96 when adjusted for the campus GSF increase consumption is down 36.4%. Taking the adjustment for the increase in gross square feet Gettysburg saved 19,425,000 gallons in FY '06 and 108,554,030 Gallons over the last 10 years. The combination of increased awareness and the replacement of all water cooled equipment with air cooled equipment and bathroom renovations in most on campus residence halls have produced such a dramatic decrease.

Water Consumption - 1,000 Gallons and Gallons/GSF



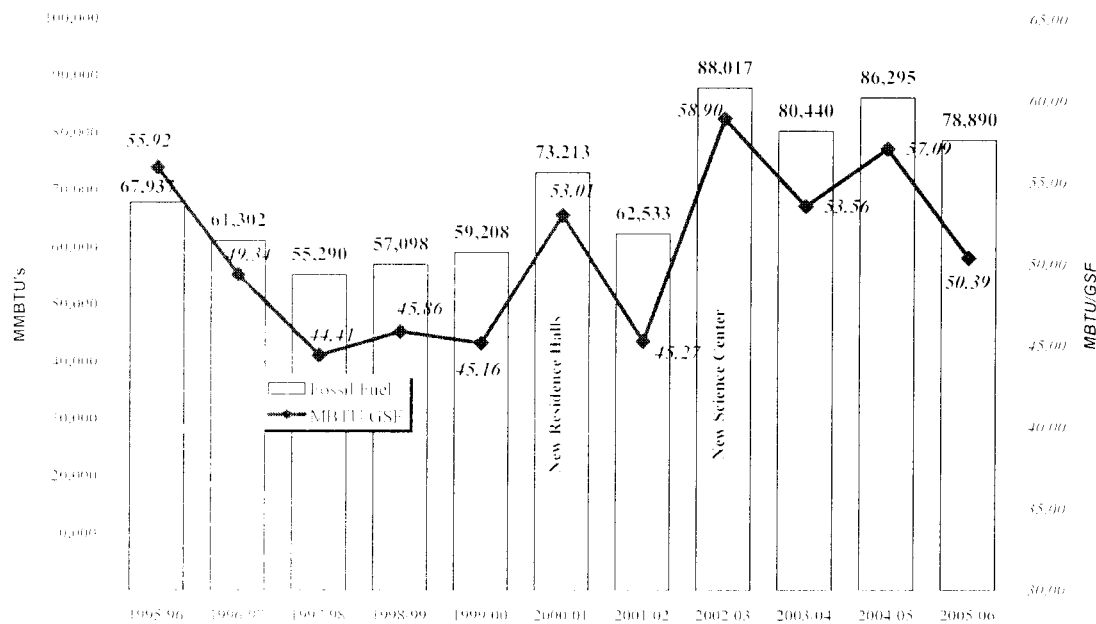
Overall energy consumption on the campus has grown by 33.8% from 111,357 MMBTU's to 148,977 MMBTU's since FY '96 when adjusted for the campus GSF increase consumption is only up 3.8%. Thru energy management efforts the campus had decreased consumption by 9.6% per GSF between FY '96 and FY '02 but then the energy intensive new science center was opened in FY '03 and consumption increased.

Energy Consumption - Total MMBTU's and MBTU/GSF



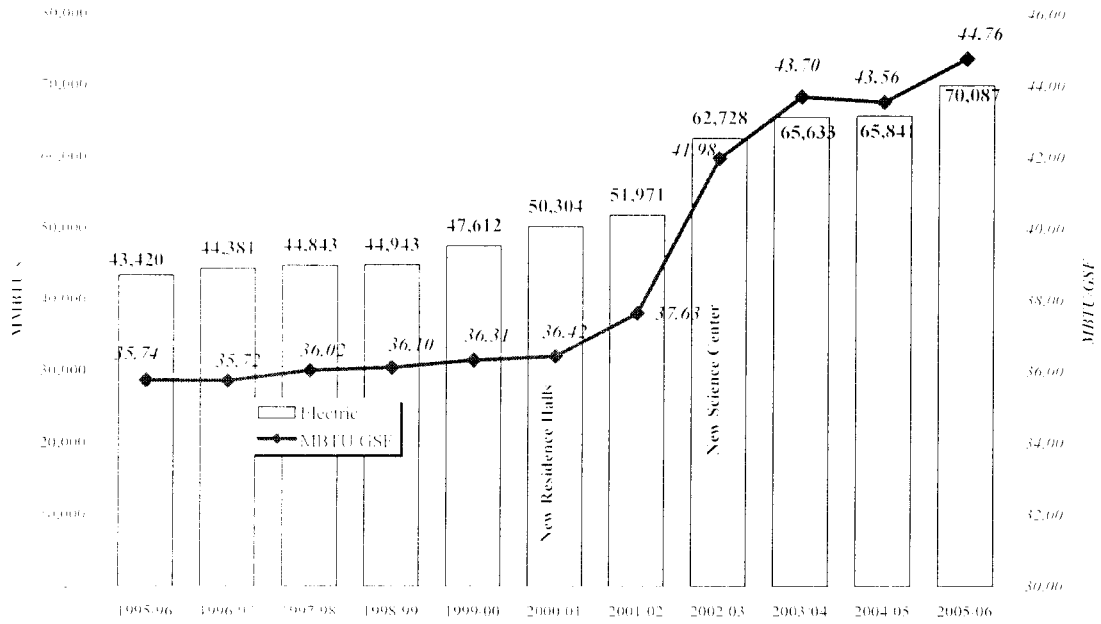
Looking closer at the two components of the campus energy Fossil Fuel and Electricity shows the impact of the electric equipment on the campus. Fossil Fuel energy consumption on the campus has increased by 16.1% from 67,937 MMBTU's to 78,890 MMBTU's since FY '96 when adjusted for the campus GSF increase fossil fuel consumption is actually down 9.9%. Thru energy management efforts the campus had decreased consumption by 19.0% per GSF between FY 96 and FY '02 but then the energy intensive new science center was opened in FY '03 and consumption has increased.

Fossil Fuel Consumption - Total MMBTU's and MBTU/GSF



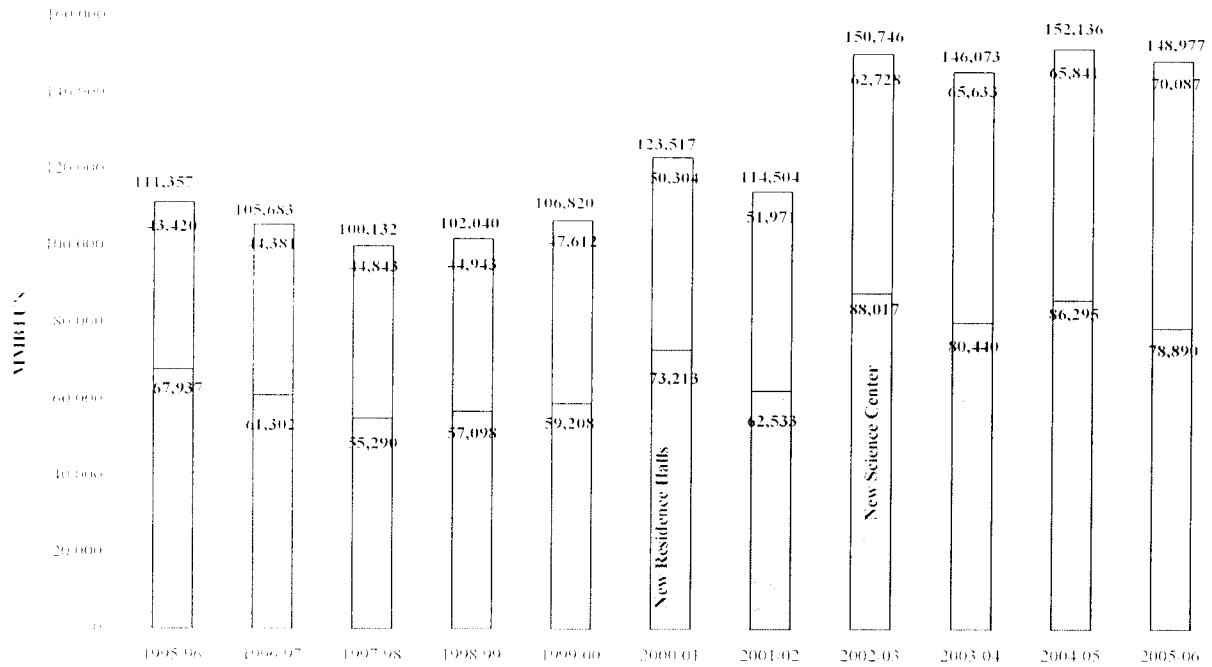
Electric energy consumption on the campus has increased by 61.4% from 43,420 MMBTU's to 70,087 MMBTU's since FY '96 when adjusted for the campus GSF increase electric consumption is actually up 25.3%. The campus has continued to increase air conditioned spaces while doubling the computer and associated equipment to the campus since FY '96. Prior to the new energy intensive science center coming on line in FY '03 electric consumption was already up 5.3% per GSF and more of the 25.3% increase can be attributed to these pieces of equipment.

Electric Consumption - Total MMBTU's and MBTU/GSF

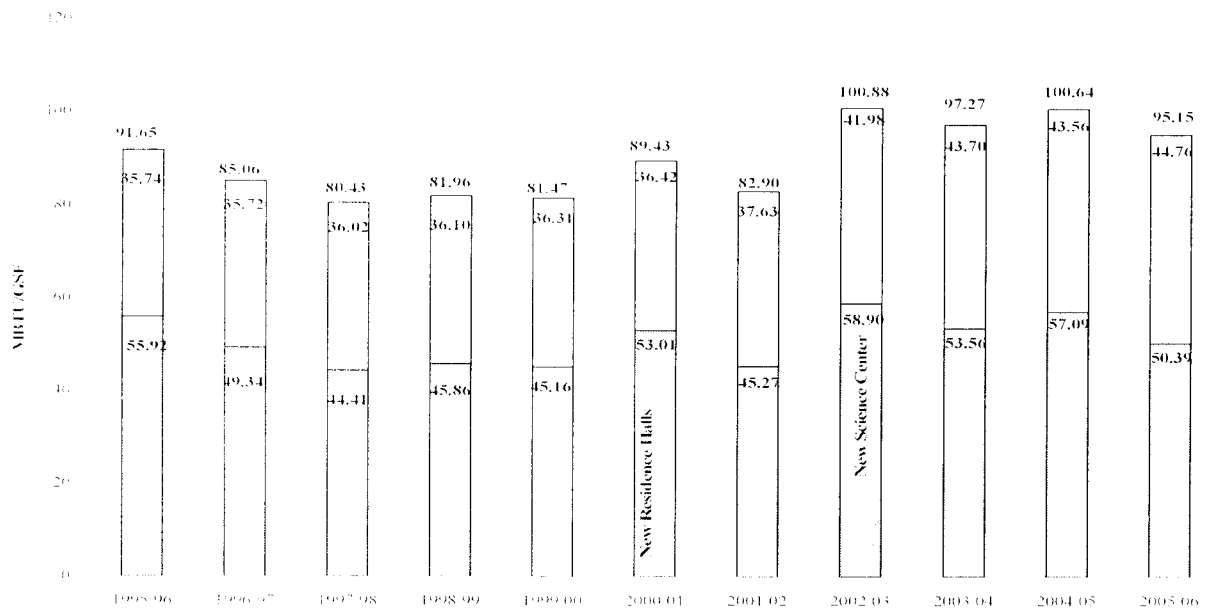


The changes in fuel mix on the campus have been dramatic, Fossil Fuel accounted for 61% in FY '96 of the campus consumption and it has decreased to 53% in FY '06.

Total Energy MMBTU's - Fossil Fuel and Electric



Total Energy MBTU/GSF - Fossil Fuel and Electric

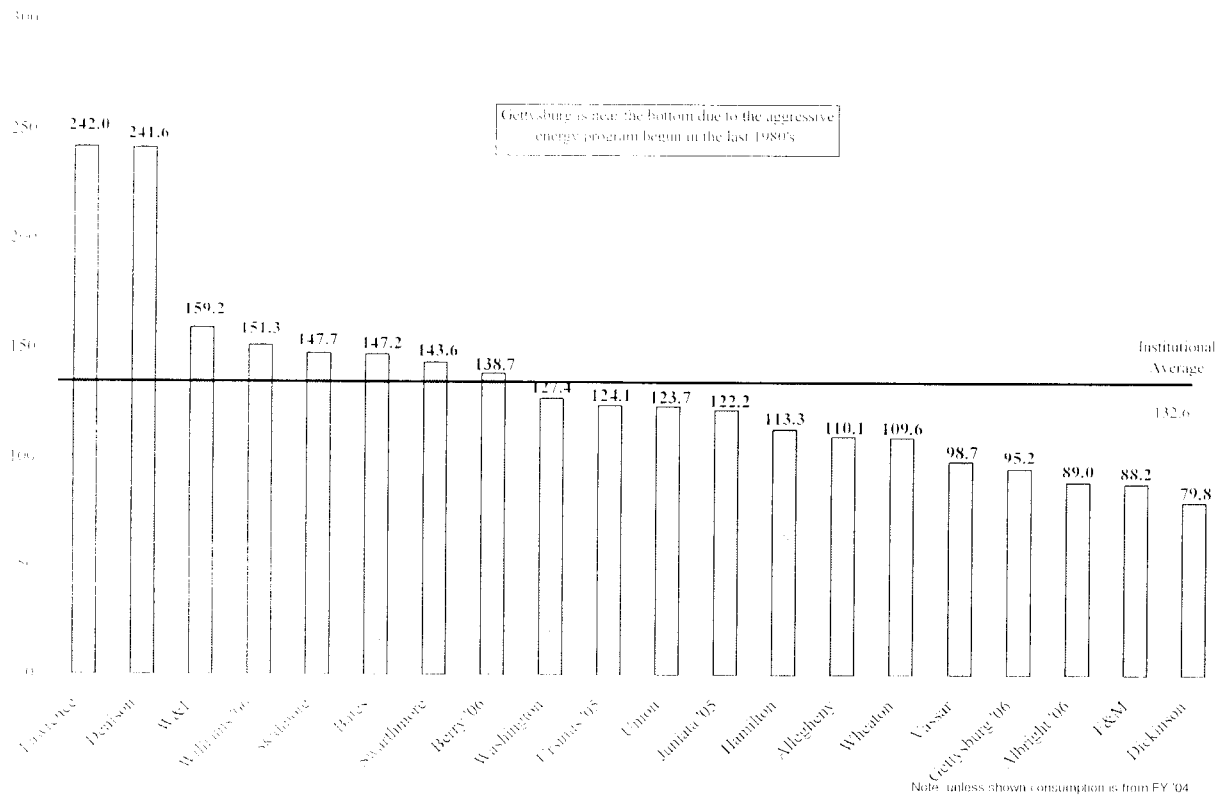


EXTERNAL COMPASIONS

The aggressive energy program began at Gettysburg has paid-off in comparatively low utility consumption despite an increase since FY '96 when compared internally.

In FY '04 Gettysburg conducted a peer facilities comparison and while utility cost have changed dramatically the actually consumption per GSF has not changed much. Gettysburg is near the bottom of the comparison group in overall consumption in both FY '04 and again with the consumption levels from FY '06.

Comparative - Energy MBTU/GSF



Water consumption management has been a point of pride for Gettysburg and compared to our peers we are near the bottom of the consumption per square foot.

Comparative - Energy Water Gallons/GSF

