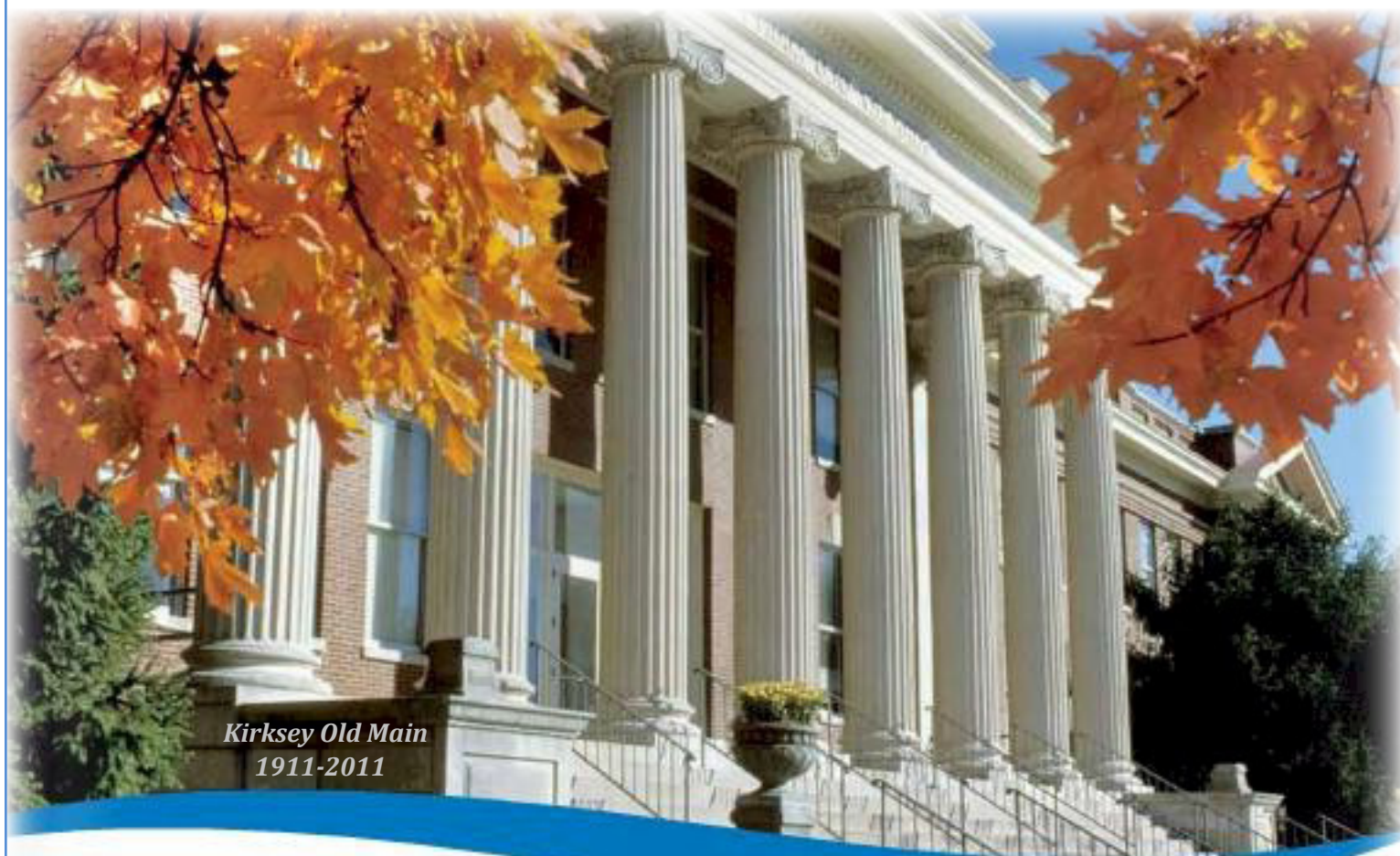


Middle Tennessee State University
Facilities Services Department

Summary of Services Annual Report

July 2010 — June 2011



*Kirksey Old Main
1911-2011*

**MIDDLE
TENNESSEE**
STATE UNIVERSITY

FACILITIES SERVICES DEPARTMENT
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October 2011



**MIDDLE
TENNESSEE**
STATE UNIVERSITY

**MTSU
Facilities
SERVICES**



ASSISTANT VICE PRESIDENT'S SUMMARY

<i>Assistance Vice President's Summary</i>	3
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CENTRAL ADMINISTRATION

<i>Accounting Information Services</i>	5
<i>Center for Energy Efficiency</i>	6
<i>Employee Development Services</i>	9
<i>Recycling Program</i>	7
<i>Work Order Services</i>	8

CONSTRUCTION ADMINISTRATION

<i>Construction Administration / Capital Maintenance Services</i>	14
---	-----------

CUSTODIAL SERVICES

<i>Custodial Services</i>	16
---------------------------	-----------

ENERGY SERVICES

<i>Central Plant</i>	10
<i>HVAC</i>	11
<i>Performance Measures</i>	11

ENGINEERING AND BUILDING SERVICES

<i>Building Services</i>	12
<i>Construction / Renovation Services</i>	12
<i>Environmental Health and Safety</i>	12
<i>Key Shop</i>	12
<i>Performance Measures</i>	13

FEATURES & COMING ATTRACTIONS

<i>Campus Master Plan Excerpts</i>	19
<i>Capital Maintenance Project List</i>	20
<i>Features & Upcoming Attractions</i>	17
<i>MTSU Sustainable Campus Fee Project List</i>	21

GROUNDS SERVICES AND GREENHOUSE SERVICES

<i>Grounds Services and Greenhouse Services</i>	15
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MOTOR POOL SERVICES

<i>Motor Pool Services</i>	16
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Facilities Services is a department reporting to Senior Vice President John Cothorn of the Division of Business and Finance.

A Tennessee Board of Regents University, Middle Tennessee State University is an equal opportunity, non-racially identifiable, educational institution that does not discriminate against individuals with disabilities.

Fiscal Year 10/11 has concluded

and FY 11/12 has begun. Campus growth and aging facilities continue to be dominant themes. New facilities, new road and infrastructure projects, and an increase in student enrollment add to the utility and Operations and Maintenance (O&M) requirements for Facilities Services. In addition to new facilities and infrastructure, the existing facilities and infrastructure continue the normal aging process – accelerated by the increased wear and tear from additional enrollment – which also increases the utility and O&M requirements. The O&M budget for Educational and General facilities has remained flat straining the departmental resources and personnel. To that end, Facilities Services maintains a strong commitment to productivity, management, innovation, informed decision making, and effective communication in serving the campus community.

This report highlights many accomplishments in FY 10/11 for the department, updates the O&M and capital budget situations, revises deferred capital renewal projections, and addresses the impending actions called for in the Positioning for the Future initiative. The following is a sample of the Accomplishments and Challenges.

Accomplishments

Performance Metrics

The Summary of Services report from the previous FY identified a combined total of 78 individual goals across the departmental work units for the FY 10/11. Overall, 69 of the goals were completely met or had substantial progress toward their completion providing for a success rate of approximately 88.5%.

Capital Projects and Construction Renovation Projects

- 9 capital construction projects were completed totaling \$54.14 million
- 203 renovation projects were completed totaling \$3.77 million
- Construction of the College of Education was completed
- Construction on the Student Union progressed and completion is scheduled for the summer of 2012

Customer Service and Communication

- All work units combined to complete just over 17,300 work orders for the year
- Facilities Services held an informational meeting with academic and administrative personnel to discuss campus maintenance and operations and work order processing

Management and Productivity

- Quarterly meetings were conducted for every work unit within the department
- Extensive training was performed throughout the department

Positioning the University for the Future

- HVAC controls for several buildings and the central energy management system were updated as part of an American Recovery and Reinvestment Act (ARRA) project and energy goals in conjunction with the Positioning the University for the Future initiative

Association of Physical Plant Administrators (APPA)

- With MTSU as a member institution, Facilities Services personnel participate in many forms of technical and leadership/management training at the state, regional, and national/international levels of APPA



- Several Facilities Services personnel serve in leadership positions and various support positions within APPA

(Continued on page 4)

Our Mission: To maintain the facilities and grounds and present them to the University and the public in a safe, clean, and functional condition while managing the resources and assets in accordance with applicable requirement, procedures, and constraints.

(Continued from page 3)

'...we strive to maintain
the campus in a safe, clean, and
functional condition...'
-the FSD mission

Challenges

Budgets

Operations and maintenance (O&M) budgets are for basic operational needs such as custodial services, grounds services, central utilities services, light bulb changing, etc., and routine maintenance and repair of facility systems such as HVAC, electrical, etc. The O&M budgets for Facilities Services have been fairly flat over the years. FY 10/11 saw no increases in O&M funding.

Capital maintenance projects are submitted each year, typically totaling \$10 million - \$13 million, to provide for the major repair and replacement needs of the campus. Funding formulas indicate an annual need of approximately \$10 million just to remain level. Recent funding history shows annual funding received in the amounts of \$3.5 million – \$4.5 million. In FY 10/11 MTSU received \$4,710,000 for capital maintenance. This under funding of capital maintenance accumulates over time to a condition referred to as “deferred capital renewal.” Deferred capital renewal puts an increased burden on the O&M needs because systems that need to be replaced remain in operation and are subject to more failures. As stated above, this condition is reported on in the Campus Master Plan and highlighted in the body of this report.

Utilities/Energy Costs

On the whole, energy and utility costs remained fairly flat in FY 10/11. Natural gas continues to remain fairly low

compared to pricing peaks a couple of years ago. This was a welcomed considering the reliance on natural gas to fuel the 5 mw turbine/cogeneration system.

In addition, the Tennessee Valley Authority continues to adjust (net increases) electrical rates. In FY 10/11, MTSU was switched to seasonal electrical rates. Time-of-use electrical rates are on the horizon for next fiscal year. These increases create additional incentive to be judicious in our utilities operations and more efficient in every aspect of energy usage management.

New Buildings

New buildings add to the O&M and utility needs of the campus. Since capital funding for a project does not ensure adequate operational funding for operating the facility, the recent growth has substantially stretched the O&M services as well as the infrastructure capacity. Construction on the College of Education project is complete and the Student Union will be complete next fiscal year.

Sustainability

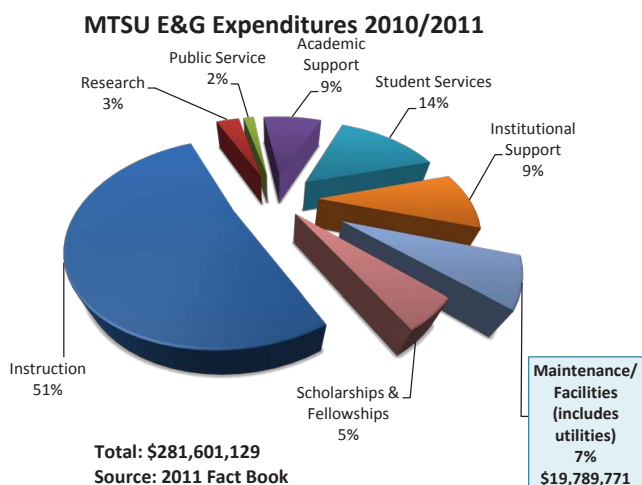
Sustainability is both an opportunity and challenge for the campus. There are many initiatives designed to increase the greening of the campus such as the Sustainable Campus Fee program, the Tennessee Sustainable Design Guidelines for capital projects, the recycling program, etc. These programs and initiatives are effective but are also limited by economic factors such as first costs and paybacks. Energy and environmental regulations are expected to increase in the near term that should produce higher utility costs – straining resources further.

Summary

Although highly constrained by resources, we continue striving to maintain the campus in a safe, clean, and functional manner while aligning the department with the University mission and the Academic Master Plan. I want to express appreciation to the Facilities Services staff for their dedication and good work in pursuit of these goals. The accomplishments listed throughout this document are a testament to your commitment to the Middle Tennessee State University while facing real challenges to success.

Finally, as we serve the university, it is important that we hear from our customers. Please review this document (as well as our website) for our service delivery. As always, feel free to contact us and let us know how we can serve you better.

—David Gray



Central Administration: Accounting Information Services

Joe Whitefield Ramona Taylor

5

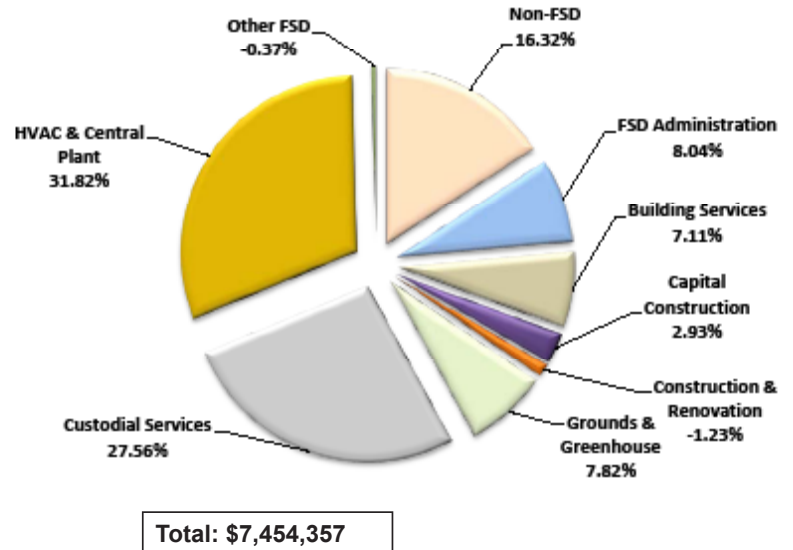
Accomplishments & Highlights 2010/2011

- Provided purchasing assistance to replace Motor Pool vehicles
- Provided assistance to buy new capital equipment for Grounds
- Learned Banner Document Management System (BDMS) to scan Journal Vouchers (JVs) and support to Banner Finance
- Attended SACUBO (Southern Association of College & University Business Officers) annual meeting for latest accounting trends

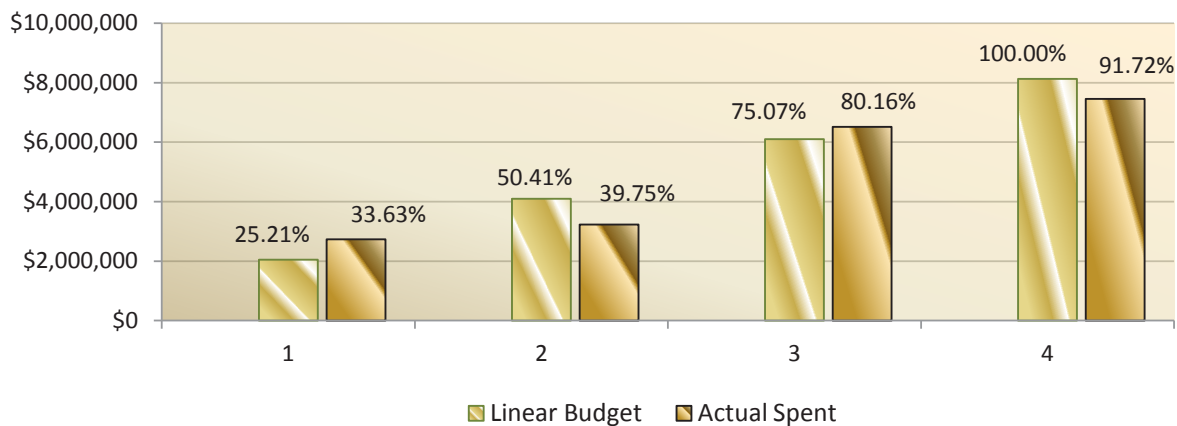
Goals 2011/2012

- Add new accountant position
- Train additional FSD staff on MTSource
- Update Plant Cost Allocation spreadsheets
- Update year-end allocations to reflect how services are provided
- Set up QuickBooks Pro to reconcile to Banner

Net E&G Expenditures for M&O Function 2010/2011



E & G Maintenance and Operations Budget FY 2010-2011 by Quarter



2010 - 2011	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Annual Totals
*Total M & O Expenditures	\$ 4,464,678	\$ 1,985,049	\$ 4,676,156	\$ 2,909,402	\$ 14,035,285
Work for Others	\$ (1,731,158)	\$ (1,488,373)	\$ (1,391,752)	\$ (1,969,464)	\$ (6,580,747)
Net E & G Expenditures	\$ 2,733,520	\$ 496,676	\$ 3,284,404	\$ 939,938	\$ 7,454,538
E & G Budget	\$ 8,127,157	\$ 8,127,157	\$ 8,127,157	\$ 8,127,157	\$ 8,127,157
% of Budget	33.63%	6.11%	40.41%	11.57%	91.72%

*M&O function minus longevity benefits

Accomplishments & Highlights 2010/2011

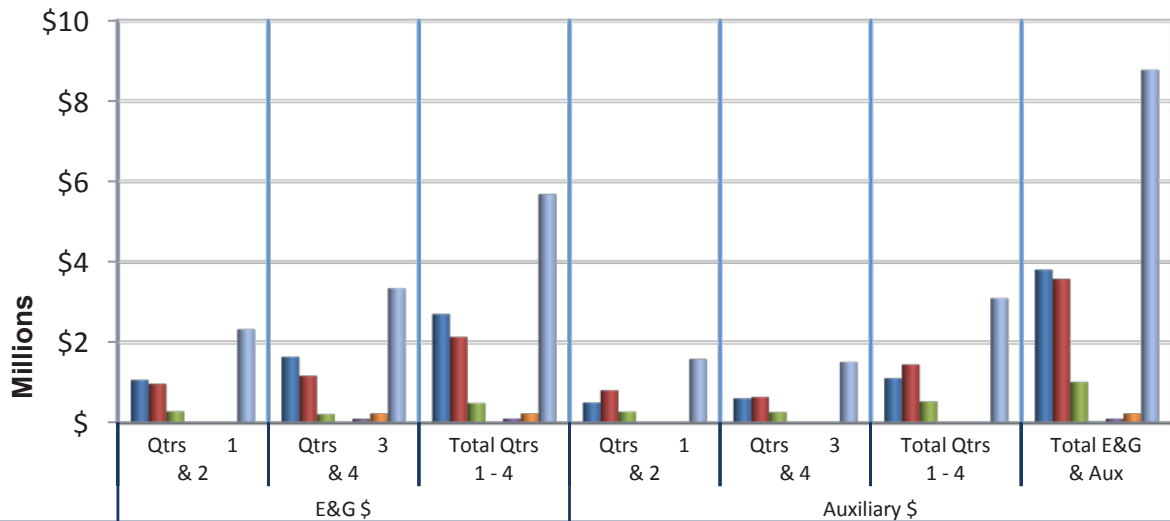
Goals 2011/2012

- Began pilot program involving seasonal utility rates with Murfreesboro Electric (MED)
- Worked with underground electrical project pertaining to IDGS (Interactive Distributed Generation System)
- Implemented a multi-facility energy management system project using ARRA funding
- Completed THEC and NCAA annual reporting
- Supported utilities and recycling planning for College of Education and Behavioral Sciences Buildings
- Provided regular column for Facilities Manager Magazine (J Whitefield)
- Continued working with the MTSU Sustainable Campus Fee Committee (Page 21)
- Updated Facility Surveys for TBR and Construction Administration
- Continued on the President's Commission on the Status of Women
- Continued serving on planning and funding committees for Tennessee Higher Education Sustainability Association
- Added part-time permanent position
- Published Summary of Services Annual Report for 10/11

- Transition electric utility into time of use rate system with MED
- Negotiate utility related contracts with Tennessee Valley Authority and Murfreesboro Electric
- Generation Partners
- Green Power Purchase Agreement
- Support utilities and recycling planning for Student Union Building
- Complete draft of University Energy Management Policy
- Support APPA Institute for Facilities Management and Leadership Training
- Continue to provide utility and energy management support to university departments
- Continue support of MTSU Sustainable Campus Fee Program
- Continue serving on Tennessee Higher Education Sustainability Association committees
- Continue to support Engineering Technology, and other classroom instruction and projects where possible (on-going)
- Continue training and professional development

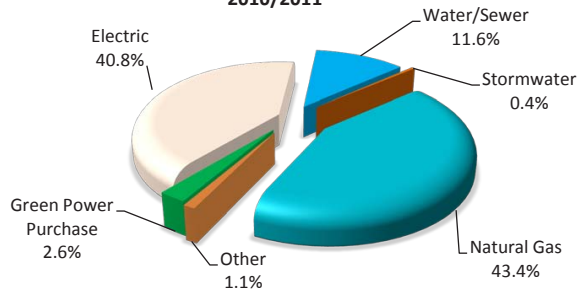
Campus Utilities

2010/2011

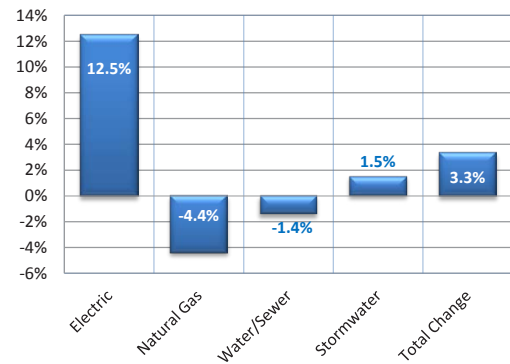


	Qtrs 1 & 2	Qtrs 3 & 4	Total Qtrs 1-4	Qtrs 1 & 2	Qtrs 3 & 4	Total Qtrs 1-4	Total E&G & Aux
E&G \$							
■ Natural Gas	\$1,063,192	\$1,641,572	\$2,704,763	\$501,372	\$605,845	\$1,107,217	\$3,811,980
■ Electric	\$965,814	\$1,168,947	\$2,134,761	\$805,709	\$641,017	\$1,446,726	\$3,581,487
■ Water/Sewer	\$278,605	\$206,732	\$485,337	\$270,863	\$257,440	\$528,303	\$1,013,640
■ Stormwater	\$9,285	\$11,199	\$20,484	\$8,797	\$8,797	\$17,595	\$38,078
■ Other	\$6,843	\$93,256	\$100,099	\$-	\$-	\$-	\$100,099
■ Green Power Purchase	\$-	\$230,000	\$230,000	\$-	\$-	\$-	\$230,000
■ Total	\$2,323,739	\$3,351,705	\$5,675,445	\$1,586,742	\$1,513,098	\$3,099,841	\$8,775,285

**Total Utilities: E&G and Auxiliary
2010/2011**



Main Utility Costs 09/10 to 10/11



Recycling Program - MTSU Recycles

Linda Hardyman

Accomplishments & Highlights 2010/2011

- Maintained recycling program to meet campus needs employing student workers
- Utilized MTSU Sustainable Campus Fee project funds for improvements to the recycling program (bins and equipment)
- Integrated recycling containers in College of Education and Behavioral Sciences Building
- Grew the program with additional cardboard, pallet, and maintenance metal activities
- Improved the recycle drop-off area with signage and paving
- Added truck to recycling fleet
- Incorporated plastic in all campus buildings into the recycling program
- Worked with student organization to provide football tailgating in Walnut Grove
- Increased commodities collection overall by nearly 35%
- Utilized more than 350 volunteer hours for the recycling program
- Supported the Garden of Hope Project with the Rutherford County Sheriff's Department
- Continued placing stickers for the "Lights Out Campaign" for the University Positioning for the Future Initiative
- Attended workshops and tours geared towards recycling education
- Supported Construction/Renovation projects
- Provided safety training for recycling staff

Goals 2011/2012

- Continue to grow the program by providing education, upgrading appearance of recycling containers, and by expansion through increasing collection volumes and revenues
- Continue to support Construction/Renovation project work
- Support recycling planning for Student Union Building and other new construction or renovation
- Continue working with MTSU Sustainable Campus Fee Program for recycling project funding
- Continue involvement with Tennessee Higher Education Sustainability Association
- Explore new initiatives as the opportunity arises
- Continue to provide classroom support
- Continue participation in training and development programs

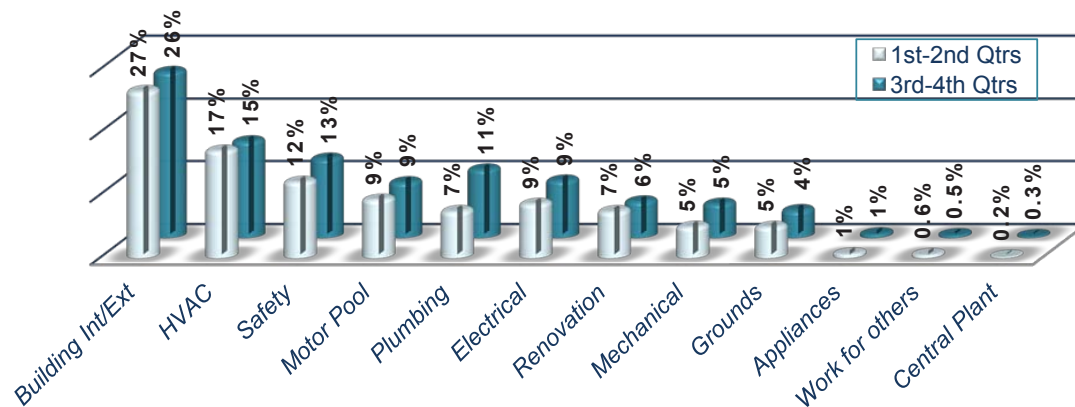


Earth Day 2011



Recycling Program Collections			
Commodity	Pounds		% +/-
	09/10	10/11	
Aluminum	8,485	9,074	6.9%
Mixed/White Paper	299,460	517,400	72.8%
Newspaper/Magazines	287,273	297,440	3.5%
Maintenance metals	48,240	99,874	107.0%
Cardboard	319,920	365,930	14.4%
E-waste	50,000	48,000	-4.0%
Plastics	66,804	120,328	80.1%
Units			
Batteries	1,537	1,292	-15.9%
Ink cartridges	785	1,462	86.2%
Pallets	N/A	1,200	

Work Orders Originated 2010/2011



Accomplishments & Highlights 2010/2011

- Assist in migrating Mainsaver to new server in ITD
- Assist with technology issues related to relocation of offices in Holmes Building, Holmes Mod and Bayer Travis
- Coordinate computer replacement project for Facilities Services
- Support year-end billing and reporting process, warehouse inventory and Summary of Services
- Assist ITD in preparing and moving all documents and data to new server
- Support purchase and installation of new copier and administer user access and settings



Goals 2011/2012

- Work with ITD to upgrade Mainsaver to latest version and install on server and client PCs
- Continue to offer computer support with installing software and troubleshooting minor software and hardware issues. Hire and train new Work Order clerk
- Continue to assist ITD in preparing and moving all documents and data to new server
- Serve on MTSU Classified Employee Recognition Committee

2010/2011 WORK ORDERS ORIGINATED

	1st Qtr		2nd Qtr		3rd Qtr		4th Qtr		Annual Totals	
	# WO	% of Total	# WO	% of Total	# WO	% of Total	# WO	% of Total	# WO	% of Total
Appliances	36	1%	27	1%	25	1%	32	1%	120	1%
Building Interior/Exterior	1,322	27%	1,038	26%	1,122	27%	1,126	26%	4,609	27%
Central Plant	11	0.2%	10	0.2%	14	0.3%	10	0.2%	45	0.3%
Electrical	438	9%	324	8%	419	10%	358	8%	1,539	9%
Grounds	263	5%	180	4%	176	4%	196	5%	815	5%
HVAC	860	18%	659	16%	599	14%	719	17%	2,838	16%
Mechanical	217	4%	227	6%	213	5%	218	5%	875	5%
Motor Pool	453	9%	371	9%	350	8%	474	11%	1,648	10%
Plumbing	311	6%	350	9%	539	13%	308	7%	1,508	9%
Renovation	417	9%	242	6%	228	5%	254	6%	1,141	7%
Work for others	31	1%	21	1%	18	0%	16	0%	86	0.5%
Safety	522	11%	553	14%	478	11%	566	13%	2,119	12%
Total	4,881	100%	4,002	100.0%	4,181	100.0%	4,277	100.0%	17,343	100.0%

Central Administration: Employee Development Services

Joe Whitefield Connie Hagberg



Accomplishments & Highlights 2010/2011

- Facilitated employee training sessions for FSD work units; provided department-wide training regarding completion of University Accident Reports
- Coordinated forklift and aerial lift hands-on training sessions by certified trainers; offered enrollment to employees in other University departments



Goals 2011/2012

- Review current training program; add new training sessions (as required or requested.)
- Continue to organize and coordinate training sessions for FSD work units
- Continue to review specific cleaning tasks and grounds work, with overall focus on improved campus facility and grounds cleanliness and appearance
- Continue maintenance and productivity studies for FSD with emphasis on custodial services
- Attend professional development and leadership training

2010/2011 FSD Employee Training Records		Leadership/Professional Development			Technical Training		
By Training Type	Employees (Full-Time)	Employees Trained	Total Hours		Employees Trained	Total Hours	
			In-House	Conference		In-House	Conference
Central Administration							
-Assistant Vice President	2	2	7	11	2	6	0
-Accounting Services	2	2	42	18.5	1	0.5	0
-Center for Energy Efficiency	3	3	17.5	49.5	3	20.0	5.0
-Employee Development	1	1	3	25	1	0.5	0
-Work Orders	2	2	5	0	1	0.5	0
Building & Engineering Services	31	30	207	89.5	30	162.0	215.5
Construction Administration	4	4	18	64	2	2.5	1
Custodial Services	28	28	91.0	0	27	165.5	0.0
Energy Services	19	19	64	18	19	151.5	0
Grounds Services/Motor Pool	17	17	40.5	0	17	152	11
Total	109	108	495	275.5	103	661	232.5

Number of Employees Per Total Hours Trained	Employees (Full-Time)	0 Hrs	1-10 Hrs	11-20 Hrs	>20 Hrs
Central Administration					
-Assistant Vice President	2		1	1	
-Accounting Services	2			1	1
-Center for Energy Efficiency	3		1	1	1
-Employee Development	1				1
-Work Orders	2		2		
Building & Engineering Services	31	1	17	9	4
Construction Administration	4		3		1
Custodial Services	28		26	2	
Energy Services	19		10	7	2
Grounds Services/Motor Pool	17		8	9	0
Total	109	1	68	30	10

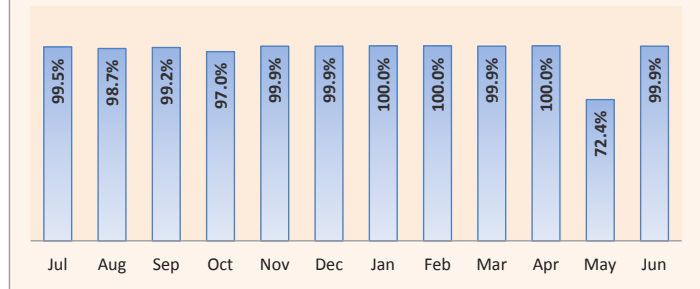
Accomplishments & Highlights 2010/2011

- Managed 240 after hours callbacks
- Supported capital construction efforts for the College of Education and Behavioral Science and the Student Union Buildings
- Developed protocol on operating main chilling plant in conjunction with satellite plant
- Supported replacement of steam line "D" this year
- Continued completion of safety training
- Provided training to maintain compliance regarding confined space and code issues
- Hired three replacement operators for the Central Plant
- Continued to evaluate operating schedules for the natural gas turbine generator with respect to natural gas and electric pricing

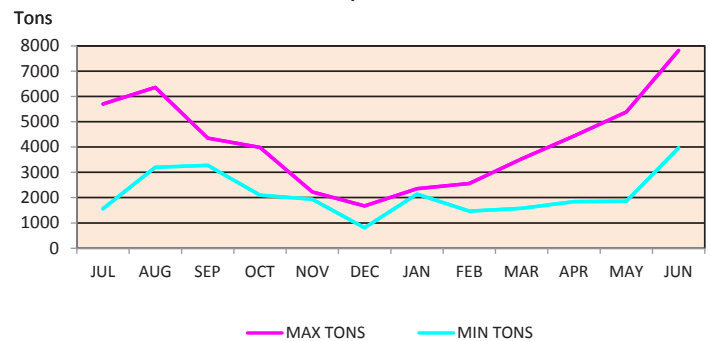
Goals 2011/2012

- Prepare EPA report for Green House Gas emissions
- Continue to support capital and construction/renovation projects on campus
- Continue to investigate special types of filters to improve HVAC units operation
- Continue to investigate training opportunities
- Support new reverse osmosis system installation
- Continue exploring recovery of loop system condensate
- Support design and installation of new lube oil coolers for turbine
- Prepare new air pollution control permit report

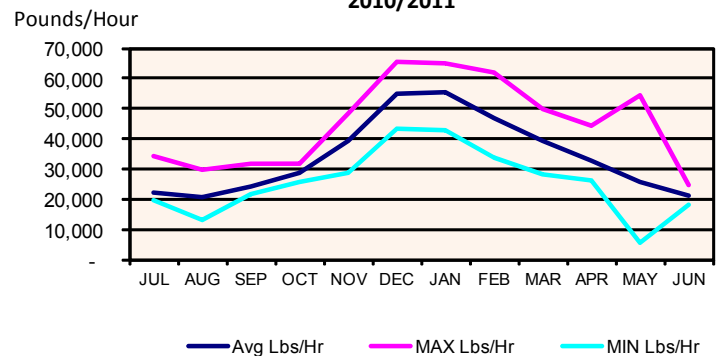
**Turbine: Percent Runtime By Month
2010/2011**



**Chilled Water Tonnage
2010/2011**



**Steam Production
2010/2011**



2010/2011 Central Plant Equipment Peak Operational Levels														
Natural Gas Fired Turbine/ Generator					Steam Boilers					Chillers				
5MW (nominal)					85,000 Pounds/Hour (peak)					10,500 Tons (peak)				
	Mid-Year	3 rd Qtr	4 th Qtr	Annual		Mid-Year	3 rd Qtr	4 th Qtr	Annual		Mid-Year	3 rd Qtr	4 th Qtr	Annual
Peak MW	5.01	5.88	5.88	5.88										
Ave MW	4.49	4.79	4.35	4.53	Ave LBS/Hr	31,657	47,117	26,627	34,265	Max Peak Tons	6,357	3,534	7,824	7,824
Total MWH	19,629	10,344	8,611	38,584	Peak LBS/Hr	65,413	65,083	54,333	65,413	Min Tons	1,074	1,329	5,952	934
Purchased power: 33,745.18 MWH														

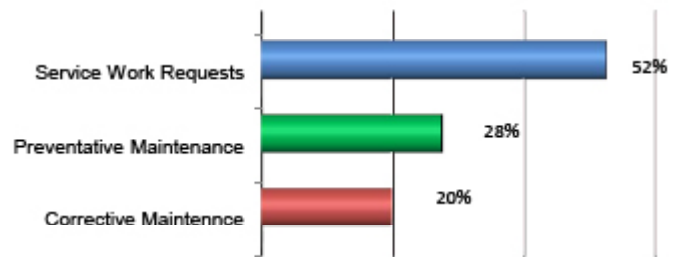
Accomplishments & Highlights 2010/2011

- Managed 76 after hours callbacks
- Improved HVAC building air filtering system in parallel with the MTSU Sustainable Campus Fee program
- Supported construction of College of Education and Behavioral Science and the Student Union Buildings
- Continued improving HVAC filtering systems
- Completed several projects for the MTSU Sustainable Campus Fee program
- Participated in training for staff
- Supported the University Positioning for the Future Initiative
- Supported construction and renovation projects
- Monitored construction projects for 'out of warranty' state
- Reviewed the implementation procedures on services to auxiliaries and on zone maintenance



Energy Services

Total Work Order Hours
2010/2011



Goals 2011/2012

- Continue improving HVAC filtering systems
- Support construction of Student Union Building
- Prepare new project applications for the MTSU Sustainable Campus Fee program
- Continue to support the University in regarding Positioning for the Future
- Continue participation in additional training for HVAC staff
- Continue support of construction/renovation projects
- Continue to monitor construction projects for "out of warranty" state

PERFORMANCE MEASURES: Energy Services

2010/2011		#Work Orders Completed		Man Hours		Avg Man Hours/ Work Order		% Closed Past Due	
		Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual
CORRECTIVE MAINTENANCE (CM)	Appliances	7	19	92	142	13.1	7.4	0.0%	10.5%
	Central Plant	0	2	0	4	0.0	1.8	0.0%	0.0%
	HVAC	538	1142	1476	4118	2.7	3.6	5.0%	5.3%
	Mechanical	71	168	169	682	2.4	4.1	7.0%	7.7%
	Total	616	1331	1736	4945	2.8	3.7	5.2%	5.6%
PREVENTIVE MAINTENANCE (PM)	Appliances	6	11	5	9	0.8	0.8	0.0%	0.0%
	Central Plant	9	18	1039	2423	115.4	134.6	0.0%	5.6%
	HVAC	441	915	1773	3743	4.0	4.1	7.3%	15.3%
	Mechanical	314	647	243	616	0.8	1.0	0.3%	2.8%
	Total	770	1591	3059	6789	4.0	4.3	4.3%	10.0%
SERVICE WORK ORDERS	Appliances	10	11	26	18	2.6	1.6	0.0%	0.0%
	Central Plant	12	24	4793	9300	399.4	387.5	33.3%	0.0%
	HVAC	501	757	1832	3567	3.7	4.7	9.4%	9.9%
	Mechanical	23	47	34	64	1.5	1.4	26.1%	19.1%
	Total	546	839	6685	12948	12.2	15.4	10.4%	10.0%

Accomplishments & Highlights 2010/2011

This year the Engineering/Building Services group was restructured. This restructuring was done to provide better service to the university and Facilities Services.

Building Services

- Continued training of technicians for the testing of backflow devices and reported results as required to the city and county water departments
- Completed 10,702 work orders or approximately 53 work orders per workday or approximately 407 work orders for every thousand students
- Completed bid specifications and procurement process for new lift truck; acquired truck and trained technicians on use of the equipment
- Partnered with Murfreesboro Electric Department and Tennessee Technology Center of Murfreesboro on Confined Space Training Unit

Construction Services and Key Shop

Key Shop

- Key Shop completed 2,018 work orders.
- Supported projects for Housing, Construction Administration and Construction/Renovation requiring construction cores and/or rekeying
- Continued to work with architects, designers and contractors on security issues for the new student union and education buildings

Construction Services Shop

- Completed 88 projects
- Completed \$260,000 repair project of House 7 on Greek Row for Housing and Residential Life
- Continued training of technicians on GPS equipment and GIS data base and started data collection on underground utilities

EH&S

- Filled the position of associate director of EH&S and created an environmental engineer position; initiated a laboratory safety inspection program
- Implemented the online EHS Training Program with 6 training modules for employees and faculty
- Continued to develop EH&S website
- Safety and industrial hygiene services were provided to numerous departments and work units on campus.
- Completed the Notice of Intent for the mandated Stormwater Permit

Construction/Renovation

- Completed over 200 projects for an average of about 67 projects for each designer
- Total value of all projects completed was \$3,774,167 for an average of about \$1,258,000 per designer
- In-House Construction Guidelines were updated as needed
- Renovated Haynes Turner carpenters shop to admin space
- Completed 6 major TAF projects
- Integrated the estimating, planning and scheduling function into Construction/Renovation



Computer lab renovation

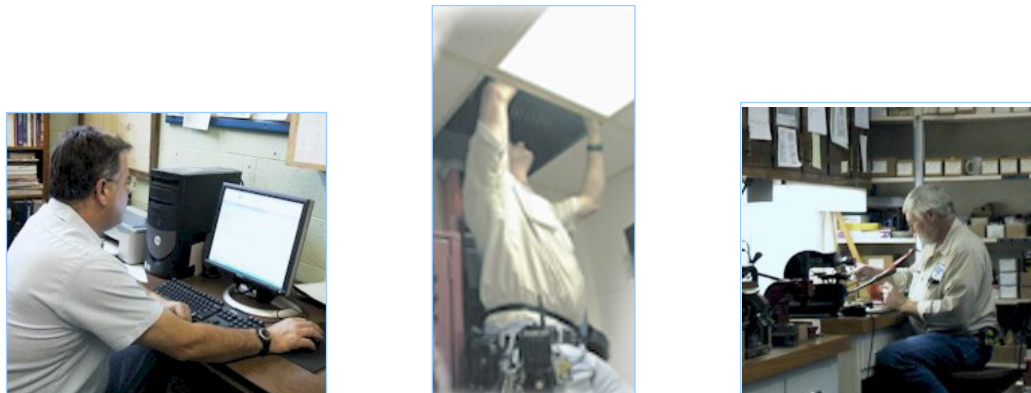
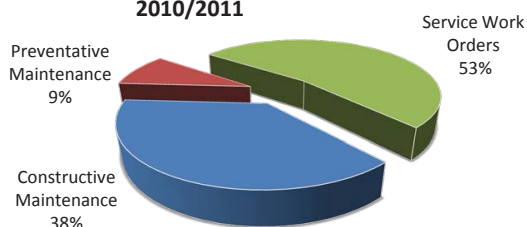
2010/2011 Construction/Renovation Project Summary

	1st Qtr		2nd Qtr		3rd Qtr		4th Qtr		Annual Totals	
	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects
Beginning Active Projects	172	\$ 1,983,886	181	\$ 2,347,083	181	\$ 1,924,407	169	\$ 1,062,894	172	\$ 1,983,886
Added Projects	68	\$ 1,206,388	49	\$ 418,314	37	\$ 508,678	87	\$ 1,954,753	241	\$ 4,088,133
Completed Projects	59	\$ 843,191	49	\$ 840,970	49	\$ 1,370,191	46	\$ 719,815	203	\$ 3,774,167
Ending Active Projects	181	\$ 2,347,083	181	\$ 1,924,427	169	\$ 1,062,894	210	\$ 2,297,832	210	\$ 3,397,832

Goals 2011/2012

- Complete TEMA Pre-Hazard Mitigation Grant
- Fill the environmental engineer position
- Obtain Notice of Coverage for the Stormwater Permit
- Update In-House Construction Guidelines
- Develop partnership with Tennessee Technology Center of Murfreesboro to utilize their students for temporary employees in Facilities Services Departments
- Continue training and professional development

Engineering/Building Services Man Hours by Work Order Type 2010/2011



PERFORMANCE MEASURES: Engineering and Building Services									
2010/2011		# Work Orders		Man Hours		Avg MH/WO		% Closed Past Due	
CORRECTIVE MAINTENANCE (CM)		Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual
	Appliances	16	32	34	69	2.1	2.2	0.0%	0.0%
	Building Interior/Exterior	512	965	1,279	2,460	2.5	2.5	8.6%	8.9%
	Electrical	572	1,139	1,878	3,408	3.3	3.0	5.6%	6.0%
	Key Shop	404	861	732	1,623	1.8	1.9	3.7%	5.2%
	Plumbing	545	1,116	1,083	1,954	2.0	1.8	1.8%	1.3%
	Safety	51	86	88	144	1.7	1.7	3.9%	4.7%
	Total	2,100	4,199	5,093	9,657	2.4	2.3	4.9%	5.2%
PREVENTIVE MAINTENANCE (PM)		Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual
	Building Interior/Exterior	69	123	271	405	3.9	3.3	23.2%	22.8%
	Electrical*	34	69	32	63	0.9	0.9	5.9%	2.9%
	Plumbing	18	121	23	187	1.3	1.5	5.6%	28.9%
	Safety	880	1,779	687	1,701	0.8	1.0	1.7%	1.2%
	Total	1,001	2,092	1,012	2,355	1.0	1.1	3.4%	4.1%
*includes generator PMs performed by Motor Pool Services									
SERVICE WORK ORDERS		Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual
	Appliances	4	9	9	19	2.1	2.1	0.0%	0.0%
	Building Interior/Exterior	715	1,730	2,531	5,322	3.5	3.1	21.4%	21.0%
	Electrical	137	293	302	591	2.2	2.0	6.6%	7.5%
	Key Shop	503	818	1,027	1,664	2.0	2.0	6.6%	4.9%
	Plumbing	80	197	110	217	1.4	1.1	2.5%	2.5%
	Renovation	611	1,154	3,268	5,586	5.3	4.8	5.1%	6.8%
	Safety	102	210	131	258	1.3	1.2	4.9%	6.7%
	Total	2,152	4,411	7,377	13,657	3.4	3.1	10.8%	11.9%

Accomplishments & Highlights 2010/2011

- Completed several educational opportunities
- Continued cooperative efforts with City Codes Administration and other municipal departments
- Continued support for University's Positioning for the Future Initiatives
- Continued participation in sustainable design efforts in Capital Construction projects
- Continuing communication meetings with Construction Administration staff

Goals 2011/2012

- Establish infrastructure for a second electrical entrance for campus
- Take advantage of continuing education opportunities
- Continue cooperative efforts with city departments and utilities
- Continue and enhance participation in APPA educational programs
- Continue efforts to update the University's campus standards
- Continue efforts to better coordinate communication among campus departments

2010/2011 Capital Projects Review		
	New Projects	Completed Projects
July - September	✓ Several buildings roof replacement	✓ Corlew and Commings renovation ✓ Tucker Theater renovation ✓ Jones Hall HVAC update ✓ Wiser-Patton sewer line replacement
October - December	✓ Dairy farm improvements ✓ Parking and Transportation Phase 3	✓ Fiber redundant ring
January - March	✓ Jones Hall steamline replacement ✓ BAS roof replacement ✓ Campus lighting modernization ✓ Energy modernization	✓ Several buildings roof replacement ✓ Rutledge porch reconstruction
April - June	✓ Women's basketball office renovation ✓ Monohan Hall masonry ✓ Mass Comm media center ✓ Physical Plant upgrades (boiler feedwater & reverse osmosis)	✓ College of Education Building ✓ BAS roof replacement

College of Education & Behavioral Science



New Dairy Barn Construction



Student Union Construction

2010/2011 Construction Administration Capital Project Summary

	1st Qtr		2nd Qtr		3rd Qtr		4th Qtr		Annual Totals	
	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects	# Projects	Value of Projects
Beginning Active Projects	9	\$ 131,412,019	6	\$ 109,726,940	7	\$ 118,463,427	9	\$ 123,816,001	9	\$ 131,412,019
Added Projects	1	\$ 524,921	2	\$ 9,136,487	4	\$ 6,047,495	4	\$ 2,244,404	11	\$ 17,953,307
Completed Projects	4	\$ 22,210,000	1	\$ 400,000	2	\$ 694,921	2	\$ 30,835,079	9	\$ 54,140,000
Ending Active Projects	6	\$ 109,726,940	7	\$ 118,463,427	9	\$ 123,816,001	11	\$ 95,225,326	11	\$ 95,225,326

Accomplishments & Highlights 2010/2011

- Developed new landscape specifications for campus designer guideline standards
- Improved communication with Campus Planning and outside contractors for design review of new construction projects
- Implemented soil testing, new fertilizer program, and new weed control program to improved athletic field playing surfaces
- Installed irrigation zones around perimeter of practice football field to improve overall appearance and playability
- Improved athletic field line painting with new paint machine and spray tips; also switched to a more environmentally friendly type of paint
- Worked with campus beautification to provide new outdoor trash cans across campus to improve litter management
- Started new type of landscape/athletic field documenting using time-lapse cameras and HD quality videos for multiple purposes, including training and cross-training of employees
- Continued to review and implement strategies to improve overall quality and efficiency of mowing, trimming, pruning, trash removal, snow removal, leaf removal, and other various services
- Maintained quarterly communications, required training, and cross-training activities



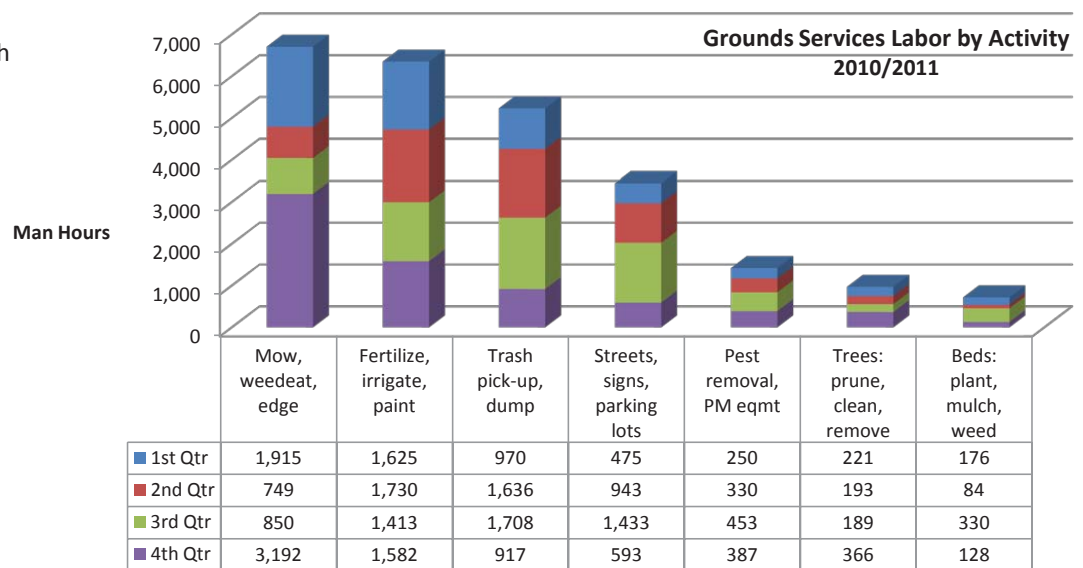
Litter management



Field liner

Goals 2011/2012

- Continue improvements to athletic field surfaces through soil testing, fertilizing, and weed control,
- Implement new mowing height schedule to help improve turf quality for athletics during transition periods
- Explore ways to improve irrigation and drainage on athletic fields
- Continue to provide design review on new construction projects
- Develop and implement new strategy to improve the efficiency of curb/street sweeping
- Improve irrigation water usage on campus by performing more frequent inspections and making repairs so system runs as efficiently as possible
- Continue to implement and improve video documentation and utilize technology to more effectively train our employees
- Develop and implement new strategies to improve the quality of shrub beds and mulching



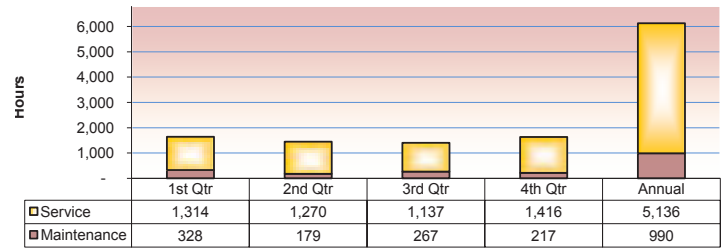
PERFORMANCE MEASURES: Grounds						
2010-2011	Man Hours		Avg MH/WO		% Closed Past Due	
	Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual
Maintenance	396	545	8.6	7.0	21.7%	19.2%
Preventative (PM)	0	0	0.0	0.0	0.0%	0.0%
Corrective (CM)	396	545	8.6	7.0	21.7%	19.2%
Service	3,817	27,845	9.7	43.4	9.9%	9.8%
Routine	3,418	33,389	8.7	46.5	8.9%	11.4%
Annual	0	25,367	0.0	3,171	0.0%	0.0%
Total	4,213	28,390	9.6	39.4	11.2%	10.8%

Accomplishments & Highlights 2010/2011

- Replaced vans and cars in the Motor Pool fleet
- Replaced the service truck
- Updated fuel pumps
- Added a Nissan Leaf to the fleet
- Provided on site emissions testing of University vehicles
- Continued to provide service to FSD shops and departments insuring repair and upkeep of machines and vehicles
- Continued training and educational opportunities



Motor Pool Man Hours
2010/2011



Goals 2011/2012

- Upgrade diagnostic equipment
- Install a charging station for the Nissan Leaf
- Set up on-site emissions testing for University vehicles
- Improve lighting in the shop area
- Continue training opportunities

Performance Measures: Motor Pool								
2010-2011	# Work Orders		# Man Hours		Avg Man Hours /WO		% Closed Past Due	
	Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual	Mid-Year	Annual
Maintenance	473	987	506	990	1.1	1.0	5.9%	3.7%
Preventative (PM)	446	926	430	871	1.0	0.9	5.8%	3.6%
Corrective (CM)	27	61	76	119	2.8	1.9	7.4%	6.6%
Service	422	780	2611	5136	6.2	6.6	5.5%	9.7%
Total	895	1767	3117	6126	3.5	3.5	5.7%	6.4%

Custodial Services

Joe Whitefield Connie Hagberg
David Feagans Linda Jordan John Knox

Accomplishments & Highlights 2010/2011

- Amended Custodial Services contract to provide service for the remaining Murphy Center Complex facilities
- Built good working relationship with Custodial Services Contractor administration; worked closely with contractor to ensure contract terms firmly upheld
- Coordinated special event/conference cleaning requirements with contractor and in-house Custodial Services
- Finalized renewal of the Custodial Services contract (effective July 1, 2011) to include service for new College of Education Building and transfer of three in-house facilities to contractor
- Completed safety and administrative training sessions

Goals 2011/2012

- Ensure custodial contractor service is completed according to contract terms
- Continue productivity studies of in-house custodial services, including day porter tasks to improve overall facility cleanliness and appearance
- Continue facility inspections for cleanliness according to FSD Cleaning Standards & Frequencies

E&G Space 2010/2011	Gross Square Feet	Cleanable Square Feet	% Cleanable Square Feet
Facilities Services			
In-house	777,465	417,736	22%
Contract Labor	1,315,610	944,745	51%
Murphy Center Complex			
In-house	0	0	0%
Contract Labor	604,458	500,531	27%
Total	2,697,533	1,863,012	100%

Positioning the University for the Future Update

Sustainable Campus Fee Case Study

APPA (Association of Physical Plant Administrators) Active at Work

MTSU's 100th Anniversary Celebration

Excerpts from Campus Master Plan December 2007

Capital Maintenance Project List

MTSU Sustainable Campus Fee Project List

Positioning the University for the Future: Facilities services Initiatives

FSD Progress Report

Recommendations Approved by President as of May 2009

Energy/Utilities

Immediate Savings

Update	
1 (A):	Lights Out Campaign
1 (B):	Reset Temperature Set-points —Occupied Hours
1 (C):	Reset Temperature Set-points —Unoccupied Hours
1 (D):	Reduce Plug Load Energy
1 (E):	De-lamp Campus Vending Machines
	Stickers and lighting projects
	An EMS Project and included in Energy Guidelines development
	Worked with Pepsi to delamp machines

Positioning for the Future

2 (A):	Provide/Expand Opportunities for Energy Efficient Projects	ARRA and Sustainable Campus Fee projects (on-going)
2 (B):	Implement Watering/Irrigation Strategy to Reduce Watering Costs	Completed and on-going
2 (C):	Incorporate Economically Sound Sustainability Initiatives in New Construction	Incorporated into Design Standards

Physical Resources/Physical Plant

Immediate Savings

Update	
3 (A):	Reduce Cleaning Standards for E&G Facilities
3 (B):	Rebid Custodial Contract
3 (C):	Reduce Grounds/Greenhouse Services to E&G
3 (F):	Update Chargeback Procedures to Auxiliaries for Trash Services
	Completed
	Completed
	Completed
	Completed

Positioning for the Future

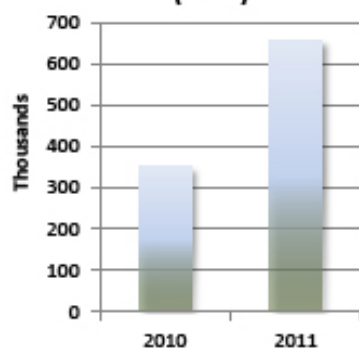
4 (B):	Implement Watering/Irrigation Strategy to Reduce Watering	Incorporated into Design Standards
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The MTSU Positioning the University for the Future Initiative began in April 2008 with brainstorming sessions, including academic chairs, deans, vice presidents, and the Faculty Senate President. An oversight steering committee explored suggestions and ideas generated during the sessions resulting in the development of four strategic work groups. Those recommendations submitted by the work groups that the president approved for Facilities Services are updated above.

Sustainable Campus Fee Case Study

As part of a Sustainable Campus Fee project, since the beginning of the 2010 calendar year Energy Services has incrementally implemented synthetic media pocket air filters on campus. The filters protect the heating and cooling coils and ductwork from dust and other contaminants and also help maintain good indoor air quality for the building occupants.

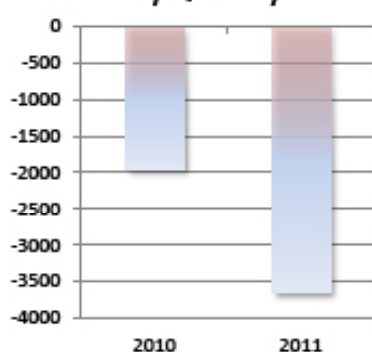
Annual Energy Savings Estimate (kWh)



To date more than 600 of the filters have been installed in 15 campus buildings. With a lower overall pressure drop (less resistant to airflow) the variable frequency drives controlling the HVAC fans operate at a lower energy level while delivering the required airflow to the space. Because the filters have an extremely high dust capacity and can last up to three years, the number of filters being changed on campus is being reduced significantly.

These two factors in combination are enabling MTSU to take a very sustainable approach to air filtration while reducing costs.

Pocket Filter Waste Reduction by Quantity



FSD is APPA Active at WORK!



APPA offers premier training for educating and equipping facilities professionals in leadership, management, and latest technologies. As an active member of APPA, at state, regional, and international levels, the MTSU Facilities Services staff supports APPA in a variety of ways from hosting workshops to holding offices.



FSD Staff Involvement Through 2010/2011

	Current Officers
	APPA- President-elect - David Gray
	TNAPPA- Secretary/Treasurer - Gerald Grimes
	Thought Leaders
	Joe Whitefield
	Facility Manager Magazine
	Joe Whitefield *
	*2010 Rex Dillow Award for Outstanding Article

	Institute for Facilities Management
	Graduates- David Gray, Joe Whitefield, Jay Wallace, Jeff McConnell, Gerald Grimes, Linda Hardyman, Julie Im, Terri Carlton

	Leadership Academy
	Graduate- David Gray Attending- Jeff McConnell, Gerald Grimes, Julie Im

	Educational Facilities Professional
	Jeff McConnell, Gerald Grimes

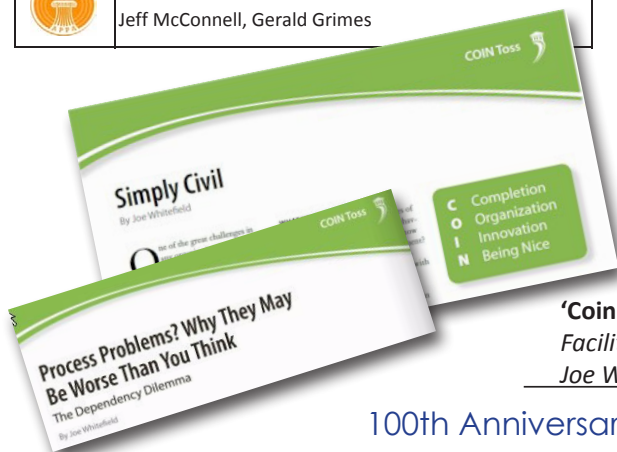
	Supervisor's Toolkit
	Don Chumney, Amanda Witt, Heather Cavitt, Donnell Thompson, Linda Hardyman, Joyce Reed, Kelly Ostergrant

	Attended TNAPPA
	FSD Units attending: Assistant Vice-President staff, Center For Energy Efficiency, Employee Development, Construction/Renovation, Energy Services, Building Services, Key Shop, Environmental Health & Safety, Grounds Services

	Attended SRAPPA
	Reggie Floyd, Jeff McConnell, Gerald Grimes, Terri Carlton, Connie Hagberg, Kelly Ostergrant

	Attended APPA
	David Gray, Joe Whitefield, Julie Im

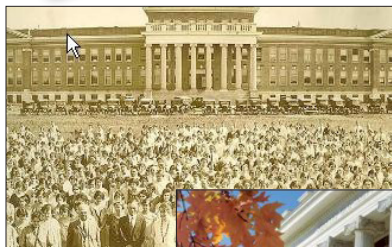
	Upcoming in 2011/2012
	APPA International President - David Gray
	APPA Facilities Drive-In Workshop



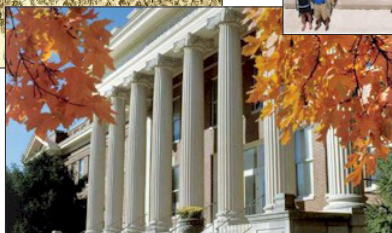
'Coin Toss' column in
Facilities Manager Magazine -
Joe Whitefield

The Association of Physical Plant Administrators promotes leadership in educational facilities for professionals seeking to build careers, transform institutions, and elevate the value and recognition of facilities education. www.appa.org

100th Anniversary Celebrations for 2011/2012



KOM- then
and now



And...

Excerpts from Campus Master Plan December 2007--

The following information categorizes the Education and General (E&G) facilities according to condition and quantifies the overall level of deferred maintenance.

19

Existing Building Analysis: Education and General Facilities

Building Name	Year Constructed	Bldg ID	Current Condition (1)	Potential Value (2)	Overall Building Rating (3)	Net SF	Gross SF
Alumni Relations House (2259 Middle Tennessee Boulevard)	1908	P0174	99.8	High	A	5,598	10,105
President's Home **	1910	P0001	87.0	High	B	7,015	7,794
Tom H. Jackson Building **	1911	P0003	86.0	High	B	4,921	8,792
Kirksey Old Main **	1911	P0002	69.8	High	C	45,772	83,705
Jones Hall **	1921	P0005	82.3	High	B	21,110	39,855
Pittard Campus School **	1927	P0007	65.5	High	C	29,805	52,424
Ellington Human Science Annex	1928	P0018	77.6	Low	D	7,254	10,276
Wiser-Patten Science Hall	1932	P0008	83.0	Medium	B	27,991	41,116
Voorhies Industrial Studies	1942	P0009	89.4	Medium	B	28,516	39,289
ROTC Annex	1942	P0010	60.2	Low	D	8,574	10,143
Alumni Office (2263 Middle Tennessee Boulevard)	1948	P0172	100	High	A	1,869	2,796
1114 East Lytle Street (Lytle House)	1948	P0171	95.1	High	A	1,379	1,874
Sam H. Ingram Building (2269 Middle Tennessee Boulevard)	1951	P0169	98.6	High	A	18,907	27,498
Parking Services Building (1403 East Main Street)	1951	P0158	98.2	High	A	7,349	12,099
James Union Building	1952	P0015	84.5	Medium	B	37,101	59,351
Forrest Hall	1954	P0017	90.3	Low	D	8,562	14,177
Photography Building	1957	P0046	76.0	Low	D	8,196	11,873
Todd Hall	1958	P0019	96.0	High	A	65,598	114,388
Saunders Fine Art	1959	P0022	89.6	Medium	B	20,088	32,870
E.W. Midgett Building	1959	P0076	65.0	Low	D	10,804	18,326
Fairview Building	1962	P0149	90.5	Medium	A	22,584	38,250
Ellington Human Science	1962	P0025	83.6	Medium	B	10,828	15,509
Boutwell Dramatic Arts	1964	P0031	81.4	Medium	B	37,655	59,876
Cope Administration Building	1965	P0034	89.4	High	B	30,815	51,184
Keathley University Center	1967	P0042	84.4	Medium	B	78,973	122,671
Davis Science Building	1967	P0041	82.7	Medium	B	44,411	75,258

Notes:

- 1.) Current condition - Facility Survey Score as of 10/07
- 2.) Potential Value determined by factors including: various land use, program suitability, code issues, original campus structure
- 3.) Overall building rating combines the current condition and potential values

Building Name	Year Constructed	Bldg ID	Current Condition (1)	Potential Value (2)	Overall Building Rating (3)	Net SF	Gross SF
Stark Agribusiness and Agriscience Center	1968	P0045	89.3	High	B	15,059	24,813
Peck Hall	1968	P0044	84.0	Medium	B	52,724	110,440
McFarland Health Service	1969	P0054	81.4	Low	D	6,873	10,285
Tennessee Livestock Center	1972	P0070	91.8	Low	D	135,079	158,191
Ezell Hall	1973	P0072	78.5	Low	D	32,497	52,452
Greenhouse	1975	P0073	100	Low	D	4,709	4,774
Ned McWherter Learning Resources Center	1975	P0074	85.1	High	B	41,763	65,865
Vocational Agriculture	1979	P0080	90.9	Low	D	5,217	6,000
Wright Music Building	1980	P0081	92.8	Medium	A	20,802	31,141
Telescope Building	1986	P0106	n/a	Low	D	328	412
ProjectHELP	1986	P0088	100	High	A	3,258	4,568
John Bragg Mass Communication Building	1990	P0083	95.5	High	A	53,735	91,114
Cason-Kennedy Nursing Building	1994	P0084	97.3	High	A	18,755	31,494
Telecomm Building	1997	P0089	100	High	A	5,957	10,267
Business & Aerospace Building	1997	P0091	99.3	High	A	100,973	184,931
Horticulture Facility	1997	P0093	94.0	Low	D	6,458	9,002
James E. Walker Library	1998	P0094	99.3	High	A	172,928	254,596
Tennessee Center for the Study and Treatment of Dyslexia	2000	P0155	94.0	High	A	4,148	7,169
Wood-Stegall Center	2001	P0156	100	High	A	4,636	10,142
Paul W. Martin, Sr. Honors Building	2003	P0166	100	High	A	11,605	20,720
Printing Services Building	2005	P0175	100	Low	D	3,927	4,320
Nursing Building Addition	2006	P084A	100	High	A	13,924	24,044

** Original campus structure

Overall Building Rating - Current Condition

Potential Value		90-100	80-90	<80
	High	A	B	C
	Medium	A	B	C
	Low	D	D	D

Deferred Maintenance

Educational and General (includes maintenance, utilities, and athletics)		
Overall Buildings Ratings	Square Footage	20-year Deferred Maintenance (1)
A	1,212,841	\$15,758,902
B	1,031,907	\$57,839,731
C	297,334	\$32,098,524
D	95,614	\$6,215,084
Other	67,808	\$2,038,594
Infrastructure		\$28,487,709
20-YR Capital Maintenance Funding		\$(24,380,000)
Totals	2,705,504	\$118,058,544

(1) 20-YR Deferred Maintenance is the sum of the Annual Capital Maintenance calculations for the most recent 20 year period for each facility. The Annual Capital Maintenance formula is:

$$ACM = 2/3 (\text{Building Current Replacement Value}) * \text{Building Age}/1275$$

Like many universities and colleges, MTSU has experienced significant growth and associated financial needs over many years. These conditions have led to a postponement of major repairs and replacements of facilities and infrastructure. The delay, combined with the age of the facilities, is leading to a deterioration of the facilities and an increased backlog of maintenance and capital renewal projects. This backlog is commonly referred to as "deferred maintenance".

The E&G Deferred Maintenance table summarizes the estimated cost of 20 years of accumulated deferred maintenance for the Education and General facilities and the infrastructure on campus according to Overall Building Rating category, the 20-year total of capital maintenance funding, and the net deferred maintenance.

MTSU Capital Maintenance

List of Projects for Capital Budget Request

2009 - 2010	Priority	Project Name	FY 09/10 Request	Appropriated Funding
	1	Underground Electrical Phase V	\$ 2,700,000	\$ -
	2	Boiler Feed System & Steam Line Improvements	\$ 1,475,000	\$ -
	3	Several Buildings Roof Replacement	\$ 450,000	\$ -
	4	Domestic Water/Sewer System Updates	\$ 300,000	\$ -
	5	Several Buildings Envelope Repair	\$ 750,000	\$ -
	6	Peck Hall HVAC Updates Phase 2 - VAV	\$ 460,000	\$ -
	7	Murphy Center Exterior Door Repair/Replacement	\$ 400,000	\$ -
	8	Murphy Center Arena HVAC	\$ 1,100,000	\$ -
	9	Underground Electrical Phase VI	\$ 1,235,000	\$ -
	10	Business/Aerospace Roof Replacement	\$ 785,000	\$ -
	11	Walker Library Roof Replacement	\$ 700,000	\$ -
	12	Murphy Center Roof Replacement	\$ 1,725,000	\$ -
	Total:		\$ 12,080,000	\$0
2010 - 2011	Priority	Project Name	FY 10/11 Request	Appropriated Funding
	1	"D" Steam Line Replacement	\$ 850,000	\$ 850,000
	2	Underground Electrical Phase V	\$ 3,105,000	\$ 3,110,000
	3	Several Buildings Roof Replacement	\$ 750,000	\$ 750,000
	4	Boiler Feed System & Steam Line Improvements	\$ 1,698,000	\$ -
	5	Several Buildings Envelope Repair	\$ 865,000	\$ -
	6	Domestic Water/Sewer System Updates	\$ 400,000	\$ -
	7	Peck Hall HVAC Updates Phase II - VAV	\$ 550,000	\$ -
	8	Murphy Center Exterior Door Repair/Replacement	\$ 500,000	\$ -
	9	Murphy Center HVAC	\$ 1,275,000	\$ -
	10	Underground Electrical Phase VI	\$ 1,425,000	\$ -
	11	Business/Aerospace Roof Replacement	\$ 925,000	\$ -
	12	Walker Library Roof Replacement	\$ 825,000	\$ -
	13	Murphy Center Roof Replacement	\$ 1,990,000	\$ -
	Total:		\$ 15,158,000	\$ 4,710,000
2011 - 2012	Priority	Project Name	FY 11/12 Request	Appropriated Funding
	1	Boiler Feed System & Steam Line Improvements	\$ 1,690,000	\$ 1,690,000
	2	Several Buildings Envelope Repair (pulled)	\$ 1,285,000	\$ -
	3	Domestic Water/Sewer System Updates	\$ 460,000	\$ 460,000
	4	Sauders Fine Arts HVAC	\$ 900,000	\$ 1,290,000
	5	Peck Hall HVAC Updates Phase II - VAV	\$ 635,000	\$ -
	6	Murphy Center Exterior Door Repair/Replacement	\$ 575,000	\$ -
	7	Murphy Center Arena HVAC	\$ 1,470,000	\$ -
	8	Underground Electrical Phase VI	\$ 1,640,000	\$ -
	9	Walker Library Roof Replacement	\$ 950,000	\$ -
	10	Murphy Center Roof Replacement	\$ 2,289,000	\$ -
	Total:		\$ 11,894,000	\$ 3,440,000
2012 - 2013	Priority	Project Name	FY 12/13 Request	Appropriated Funding
	1	Domestic Water/Sewer System Updates	\$ 506,000	TBD
	2	Murphy Center Arena HVAC	\$ 1,617,000	TBD
	3	Underground Electrical Phase VI	\$ 2,140,000	TBD
	4	Peck Hall HVAC Updates Phase II - VAV	\$ 860,000	TBD
	5	Murphy Center Exterior Door Repair/Replacement	\$ 633,000	TBD
	6	Walker Library Roof Replacement	\$ 1,045,000	TBD
	7	Murphy Center Roof Replacement	\$ 2,518,000	TBD
	8	Jones Hall Plumbing Upgrade	\$ 1,000,000	TBD
	9	Several Buildings Electrical Equipment Upgrade	\$ 1,000,000	TBD
	10	Campus Stormwater BMP	\$ 550,000	TBD
	11	Central Plant Cooling Tower Replacement	\$ 750,000	TBD
	Total:		\$ 12,619,000	TBD

MTSU Sustainable Campus Fee Project List

Joe Whitefield Linda Hardyman

21



Funded by a fee initiated by the student body, administered by the Division of Student Affairs, and supported by the Tennessee Board of Regents, the intent of the MTSU Sustainable Campus Fee Program is to decrease consumption on the campus of non-renewable energy.

A portion of the fee is designated for purchasing 'green power' to facilitate production of electricity from wind, solar power, and methane gas as a clean alternative to traditional energy sources.

The remainder of the funds generated by the fee provides support for campus projects that increase or improve energy efficiency on campus, such as retrofitting older systems, lowering consumption and decreasing energy expenses.

Projects approved support energy and environmental sustainability.

Approved Project Listing	2006-07	2007-08	2008-09	2009-10	2010-11
Green Power Purchase	\$ 220,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000
Blade servers- Server consolidation/Virtualization (two pairs)			\$ 20,000	\$ 21,000	
Blade servers- Server consolidation/Virtualization (additional pair)					\$ 21,708
Blast hand dryers for Campus Rec					\$ 11,270
Bus conversion to run on used cooking oil	\$ 15,000				
Chilling plant: pressure gauges installation	\$ 1,000				
Clean coils in BDA & Wiser Patten					\$ 4,704
Clean coils in Wiser-Patten					\$ 1,500
Clean coils Multiple Buildings (AMG, Mass Comm, Forest Hall, Voorhies)			\$ 10,288		
Cleaning of coils in the JUB and Fairview Building				\$ 4,490	
Cleaning of coils in the KUC and Telecommunication Buildings				\$ 3,000	
Closed loop sediment filtering system in the library				\$ 15,450	
Closed loop air & sediment Todd					\$ 15,450
Closed loop filtering system Stark Ag					\$ 15,450
Closed loop sediment filtering system VET			\$ 14,450		
Closed loop sediment filtering system KUC		\$ 12,000			
Closed loop sediment filtering system Mass Comm			\$ 14,450		
Conduct light level studies in Todd, Mass Comm, BAS and Peck Bldgs				\$ 5,500	
Conversion of vehicle to operate on natural gas/installation of compressed gas station				\$ 8,500	
Creation of a rain garden to assist with storm water run off				\$ 3,000	
Development of flex-fueled engine 1 (sun and hydrogen)	\$ 13,000	\$ 14,000			
Development of flex-fueled engine 2 (sun and hydrogen)		\$ 27,000			
DRIPS Project (Development and Research into Pervious Surfaces)		\$ 13,500			
FLIR i7 compact infrared camera for energy audits				\$ 3,450	
Golf cart conversion (electric to solar)		\$ 8,000			
Golf cart conversion (electric to solar) safety and suspension upgrade		\$ 2,500			
Hot/chilled water valve assessment		\$ 5,000			
HVAC controls replacement Wright Music	\$ 29,950				
HVAC pocket filter project BAS			\$ 6,250		
HVAC pocket filter project BAS Phase 2				\$ 14,904	
Hybrid/Alternative fuel vehicle purchase (subsidy)	\$ 17,250				
Install frequency drive in BDA					\$ 12,777
Install milk cooling system					\$ 17,500
Installation of a closed loop sediment filtering system in Learning Resource Cntr				\$ 15,450	
Installation of a FilterPave Porous Pavement in parking lot on Champions Way				\$ 18,665	
Installation of a geothermal cooler system on the MTSU farm				\$ 27,150	
Installation of programmable thermostats in F/S maintenance shops	\$ 1,200				
Installation of synthetic pocket filters in Honors, Davis Science, Todd Buildings				\$ 15,758	
Installation of synthetic pocket filters in McFarland, Stark Ag, LRC, Holmes Bldgs				\$ 10,845	
Installation of variable speed compressor in the Central Utilities Plant				\$ 24,000	
Kenaf Agriculture for Sustainable Community (Alternative energy crop)			\$ 5,935		
Lamp crusher	\$ 4,000				
Laser alignment devices					\$ 5,681
LED lamps in Mass Comm					\$ 19,833
LED lamps in Peck Hall					\$ 19,729
Library book purchase			\$ 4,500		
Light switch plate stickers	\$ 2,500				
Multi-fuel bus emission testing project		\$ 10,944			
Occupancy sensors Honors Building			\$ 3,372		
Permeable Pavers for Sustainable Learning Environment (Forest Hall)			\$ 13,050		
Poster campaign and Earthwise Reusable Bag Project		\$ 18,160			
Purchase & install 10kw solar system					\$ 81,224
Purchase & installation of surge protectors					\$ 1,904
Purchase of organic dyes to be used in organic dye sensitized solar cells			\$ 1,100		
Re-caulk exterior windows (Davis Science Building)		\$ 14,000			
Recycling - community drop-off relocation/expansion	\$ 3,000				
Recycling bins for Coll of Ed, Student Union & gen campus					\$ 7,000
Recycling containers for MTSU Recycling Program	\$ 1,500	\$ 5,000	\$ 5,500	\$ 6,000	\$ 6,500
Re-lamp Cason Kennedy Nursing Building (existing portion)	\$ 30,600				
Re-lamp Fairview Building		\$ 30,600			
Replace filters in AHU & clean coils in CKN & KOM					\$ 11,312
Replace old V-Belts system					\$ 2,900
Replacement of exterior windows McFarland Building			\$ 25,000		
Replacement of exterior windows Holmes Building		\$ 35,000			
ReRev Cardio System elliptical machines in Rec Center				\$ 30,000	
Steam trap ultrasonic test equipment					\$ 2,600
Studio lighting installed in Mass Comm and LRC			\$ 22,960		
Sub-metering for Chilling Plant	\$ 4,000				
Sub-metering for Murphy Center	\$ 4,000				
Synthetic media pocket filter JUB phase 1 of 2					\$ 10,000
Synthetic media pocket filter JUB phase 2					\$ 9,250
Turning manure into gold				\$ 1,000	
Ultrasonic transmitters Midgett			\$ 18,130		
Annual Total:	\$ 347,000	\$ 425,704	\$ 394,985	\$ 458,162	\$ 508,292



Summary of Services 2010/2011 Annual Report

This report is produced by the FSD assistant vice president and staff and published by FSD Central Administration.

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