

Energy Conservation: MCPS -- No. 796222

Category
Subcategory
Administering Agency
Planning Area

Montgomery County Public Schools
Countywide
Public Schools
Countywide

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

May 21, 2012
No
None
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY11	Est. FY12	Total 6 Years	FY13	FY14	FY15	FY16	FY17	FY18	Beyond 6 Years
Planning, Design, and Supervision	3,740	1,465	325	1,950	325	325	325	325	325	325	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	21,191	9,382	1,687	10,122	1,687	1,687	1,687	1,687	1,687	1,687	0
Other	705	390	45	270	45	45	45	45	45	45	0
Total	25,636	11,237	2,057	12,342	2,057	2,057	2,057	2,057	2,057	2,057	*

FUNDING SCHEDULE (\$000)

Federal Stimulus	1,624	1,624	0	0	0	0	0	0	0	0	0
G.O. Bonds	24,012	9,613	2,057	12,342	2,057	2,057	2,057	2,057	2,057	2,057	0
Total	25,636	11,237	2,057	12,342	2,057	2,057	2,057	2,057	2,057	2,057	0

OPERATING BUDGET IMPACT (\$000)

Maintenance				-3,364	-1,044	-464	-464	-464	-464	-464
Energy				-3,612	-1,122	-498	-498	-498	-498	-498
Net Impact				-6,976	-2,166	-962	-962	-962	-962	-962

DESCRIPTION

The MCPS Energy Conservation Program has saved more than \$34 million since the project began in FY 1978. The project has been reviewed by the Interagency Committee on Energy and Utility Management. The program is designed to reduce energy consumption by improving building mechanical systems, retrofitting building lighting and control systems, and controlling HVAC equipment through computer management systems. Computer systems currently control the operation of most MCPS facilities.

New and modernized schools are built with the latest technological advances to achieve higher levels of energy savings. Energy conservation staff review new construction mechanical guidelines and designs. Staff also inspect and perform computer diagnostics of HVAC installations for operational efficiency and review certain aspects of indoor air quality.

An FY 2005 appropriation was approved to continue this project. The increase in expenditures, beyond the level of effort for this project for FY 2005 and beyond, is due to the need to modernize energy management systems facing obsolescence. Of the over 170 installed energy management systems, many were installed in the 1980s, are approaching the end of their life-cycle, and replacement parts are no longer available. The approved FY 2005 appropriation and the FY 2006 appropriation include \$250K to complete pilot projects and select replacement technologies, including network and web interfaces. The expenditures shown for FY 2007 will achieve an economy of scale by bidding a large package of projects together. Expenditures shown over the six-year period will be used to complete the countywide lighting modernization program at the remaining 31 facilities. Expenditures shown for FY 2008-2010 will be used for the ongoing life-cycle replacement costs of energy management and control systems at over 170 facilities, to support the extension of the program to the remaining facilities, to support a planned program of water conservation projects, and to avoid future backlog in this area. An FY 2006 appropriation was approved to continue this project. An FY 2007 appropriation was approved to continue this project at its current level of effort. An FY 2008 appropriation was approved to continue this project at its current level of effort. An FY 2009 appropriation was approved to continue this project. An FY 2010 appropriation was approved to continue this project at its current level of effort.

An FY 2011 appropriation was approved to continue this project. Energy conservation capital improvements and construction projects are being installed in 20 to 30 schools each year. These projects require additional controls system integration outside the scope of the current budget. Of the 183 energy management system installations, 65 remain to be upgraded or replaced. Expenditures in the six-year period will address the controls system integration, the energy management system upgrades, and continue the countywide lighting modernization schedule. An FY 2011 supplemental appropriation in the amount of \$1.624 million was approved to utilize federal grant dollars for energy efficiency and renewable energy related capital projects. An FY 2012 appropriation was approved to continue this project. An FY 2013 appropriation was approved to continue the control systems integration, energy management system upgrades, and the countywide lighting modernization schedule.

OTHER DISCLOSURES

- * Expenditures will continue indefinitely.

APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY79	(\$000)
First Cost Estimate		
Current Scope	FY96	8,061
Last FY's Cost Estimate		21,522
Appropriation Request	FY13	2,057
Appropriation Request Est.	FY14	2,057
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		13,294
Expenditures / Encumbrances		7,570
Unencumbered Balance		5,724
Partial Closeout Thru	FY10	19,208
New Partial Closeout	FY11	0
Total Partial Closeout		19,208

COORDINATION

Montgomery College
County Government
Comprehensive Facilities Plan
Interagency Committee - Energy and Utilities Management
MCPS Resource Conservation Plan
County Code 8-14a

\$(000)	FY13	FY14-18
Salries and Wages:	93	465
Fringe Benefits:	33	165
Workyears:	1.5	7.5

MAP

