

# Energy Conservation: MCG (P507834)

Category General Government  
 Sub Category County Offices and Other Improvements  
 Administering Agency General Services (AAGE29)  
 Planning Area Countywide

Date Last Modified 4/21/14  
 Required Adequate Public Facility No  
 Relocation Impact None  
 Status Ongoing

Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
-------	-----------	----------	---------------	-------	-------	-------	-------	-------	-------	--------------

### EXPENDITURE SCHEDULE (\$000s)

Planning, Design and Supervision	284	29	57	198	33	33	33	33	33	0
Land	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	110	110	0	0	0	0	0	0	0	0
Construction	1,055	300	53	702	117	117	117	117	117	0
Other	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>1,449</b>	<b>439</b>	<b>110</b>	<b>900</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>0</b>

### FUNDING SCHEDULE (\$000s)

Current Revenue: General	4	0	4	0	0	0	0	0	0	0
G.O. Bonds	1,445	439	106	900	150	150	150	150	150	0
<b>Total</b>	<b>1,449</b>	<b>439</b>	<b>110</b>	<b>900</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>0</b>

### OPERATING BUDGET IMPACT (\$000s)

Energy				-147	-7	-14	-21	-28	-35	-42
Maintenance				0	0	0	0	0	0	0
<b>Net Impact</b>				<b>-147</b>	<b>-7</b>	<b>-14</b>	<b>-21</b>	<b>-28</b>	<b>-35</b>	<b>-42</b>

### APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	-150
Appropriation Request Est.	FY 16	150
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		849
Expenditure / Encumbrances		513
Unencumbered Balance		336

Date First Appropriation	FY 78	
First Cost Estimate		
Current Scope	FY 15	1,449
Last FY's Cost Estimate		1,474
Partial Closeout Thru		10,190
New Partial Closeout		439
Total Partial Closeout		10,629

## Description

This program provides for profitable energy conservation retrofits in County-owned buildings. Retrofits to lighting systems, building envelopes, heating and cooling controls, and boiler efficiency upgrades are provided through this project. A central Energy Management and Control System (EMCS) will be installed to monitor major buildings. Energy audits have been conducted to identify and prioritize energy conservation projects throughout the 105 largest buildings. Advanced energy-saving technologies are introduced into County facilities as they become economical and reliable. Retrofits are performed during off hours and do not disrupt services at affected buildings. For new construction and renovation projects, energy design guidance is provided to contractors, and energy budgets are developed and enforced. Utility costs for County facilities are monitored in a computer database. The project scope includes replacement, upgrade and conversion of the automatic temperature control (ATC) and building automation system (BAS) from existing non-reliable pneumatic controls and drives to integrated direct digital control (DDC) system. This will include electronic damper/valve drives for air ducts and hydronic loops and remote control and monitoring capability from 1301 Seven Locks Road.

## Cost Change

Funding for FY19 and FY20 has been added and prior year expenditures have been capitalized.

## Justification

This program is part of the County's cost-containment program. The projects pay for themselves in a short time, generally one to ten years. The County then continues to benefit for many years through lower utility costs. The program is environmentally responsible in reducing the need for utility power plants and decreasing greenhouse gas emissions. The project fulfills the County's voluntary commitment to reduce energy use in all its buildings under the EPA Energy Star Buildings Program. The project is necessary to fulfill the mandate of Montgomery County Code Section 8-14A, Building Energy Design Standards. Improvements in lighting and HVAC controls also improve employee comfort and productivity. Major retrofits of these energy technologies will be made at all County facilities not presently scheduled for renovation. Future maintenance costs are also reduced. Additional benefits include energy conservation, improved system control and response, improved indoor ambient conditions, improved system reliability and availability, and avoiding unavailability and obsolescence of the repair parts for the existing systems.

## Other

Scheduled Upgrades: FY15: Controls Upgrades - Potomac Library, Kensington Library  
 FY16: Controls Upgrades - Little Falls Library

## Disclosures

Expenditures will continue indefinitely.

## Coordination

# Energy Conservation: MCG (P507834)

Energy Conservation Work Program - Energy Star Upgrades, Department of General Services, Department of Environmental Protection