



# Energy Conservation: College

(P816611)

Category	Montgomery College	Date Last Modified	12/17/19
SubCategory	Higher Education	Administering Agency	Montgomery College
Planning Area	Countywide	Status	Ongoing

## EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	3,362	2,102	180	1,080	180	180	180	180	180	180	-
Site Improvements and Utilities	59	59	-	-	-	-	-	-	-	-	-
Construction	3,565	2,800	45	720	120	120	120	120	120	120	-
Other	132	132	-	-	-	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>7,118</b>	<b>5,093</b>	<b>225</b>	<b>1,800</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>-</b>

## FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Current Revenue: General	2,870	2,058	116	696	116	116	116	116	116	116	-
Federal Aid	49	49	-	-	-	-	-	-	-	-	-
G.O. Bonds	4,148	2,935	109	1,104	184	184	184	184	184	184	-
State Aid	51	51	-	-	-	-	-	-	-	-	-
<b>TOTAL FUNDING SOURCES</b>	<b>7,118</b>	<b>5,093</b>	<b>225</b>	<b>1,800</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>-</b>

## OPERATING BUDGET IMPACT (\$000s)

Impact Type	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26
Maintenance	(3,000)	(460)	(480)	(500)	(520)	(520)	(520)
Energy	(7,860)	(1,210)	(1,260)	(1,310)	(1,360)	(1,360)	(1,360)
<b>NET IMPACT</b>	<b>(10,860)</b>	<b>(1,670)</b>	<b>(1,740)</b>	<b>(1,810)</b>	<b>(1,880)</b>	<b>(1,880)</b>	<b>(1,880)</b>
FULL TIME EQUIVALENT (FTE)		2	2	2	2	2	2

## APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 21 Request	300	Year First Appropriation	FY81
Appropriation FY 22 Request	300	Last FY's Cost Estimate	6,518
Cumulative Appropriation	5,318		
Expenditure / Encumbrances	5,133		
Unencumbered Balance	185		

## PROJECT DESCRIPTION

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This project provides funding to (1) continue development of a Collegewide energy management program, (2) implement life-cycle cost effective energy conservation measures based upon energy audits, and (3) review new building/renovation designs for compliance with Montgomery County Code, Ch. 8 Building Energy Performance Standards. Typical project activities include retrofits and modifications of lighting, controls, and HVAC equipment; building envelope modifications; solar energy retrofits; computer equipment for equipment control and energy-use monitoring; HVAC system evaluation/balancing studies; long-range energy/utility planning studies; central plant design plans (Germantown, Rockville, Takoma Park/Silver Spring); and waste management studies. Typical payback on lighting, controls, HVAC and solar energy modifications is five to six years. This project includes two staff positions for a utility analyst, and mechanical engineer, which is in response to increased workload associated with the energy and utility functions, but also the design reviews of major projects, planned lifecycle asset replacements, and capital renewals, as well as complying with laws.

## LOCATION

College-wide

## COST CHANGE

Cost increases due to addition of FY25 and FY26.

## PROJECT JUSTIFICATION

As mandated by Ch. 8 of the County Code and supported by the College, County Council, the Interagency Committee on Energy & Utility Management (ICEUM), and the Citizens Energy Conservation Advisory Committee (ECAC), an energy cost reduction program has been developed. This program consists of energy audits performed by College staff to identify life cycle cost effective retrofits, including a lighting retrofit program, LEED certification, etc.

## OTHER

FY21 Appropriation: Total - \$300,000; \$184,000 (G.O. Bonds), and \$116,000 (Current Revenue: General). FY22 Appropriation: Total - \$300,000; \$184,000 (G.O. Bonds), and \$116,000 (Current Revenue: General). The following fund transfers have been made from this project: \$21,420 to Central Plant Distribution System project (#P886676) (BOT Resolution #90-102, 6/18/90); \$70,000 to Fine Arts Renovation (#P906601) (BOT Resolution #94-114, 9/19/94), \$7,000 to Planning, Design & Construction project (#P906605) (BOT Resolution #01-153, 10/15/01), and \$200,000 to Germantown Bioscience Education Center Project (#P056603)(BOT Resol. #12-06-036, 6/11/12). Beginning in FY98, the portion of this project funded by County Current Revenues migrated to the College's Operating Budget. It is anticipated that migration of this portion of the project will promote a desirable consistency with County budgeting practices and encourage greater competition in an environment of scarce resources. Reflecting the migration of this portion of the project, the College's Operating Budget includes funds for this effort. New construction and building renovation projects under review during FY19-20 include planning for new buildings on the Rockville and Takoma Park/Silver Spring campuses. Campus utilities master plans are currently being updated to conform to the approved Collegewide Facilities Master Plan Update (6/18).

## DISCLOSURES

Expenditures will continue indefinitely. Montgomery College asserts that this project conforms to the requirement of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

## COORDINATION

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This project is coordinated with the scheduled building renovations, and the planned construction of new buildings, on the Rockville, Germantown, and Takoma Park/Silver Spring Campuses., ICEUM & ECAC, Montgomery College 2025 Strategic Plan, Facility Planning: College (CIP No. P886686), Planned Lifecycle Asset Replacement: College (CIP No. P926659), Roof Replacement: College (CIP No. P876664)