Executive Order 01.01.2023.07
Energy Savings Goals for State Government

Annual Report

Covering CY23 data and FY24 activities.

Prepared by the Department of General Services
Office of Energy & Sustainability
August 2024

Table of Contents

INTRODUCTION

On May 19, 2023, Governor Moore issued Executive Order 01.01.2023.07, *Leading by Example in State Government*, which creates a new climate initiative and energy savings goal for State-owned buildings. The Executive Order established a goal to reduce the energy consumption of State-owned buildings 20% by the year 2031, compared to a fiscal year 2018 baseline. The Executive Order provides State government an opportunity to display both fiscal and environmental responsibility to the rest of Maryland by making government buildings more energy efficient, thereby reducing costs and environmental impacts.

The EO requires DGS, at the end of each fiscal year, to submit an Annual Report to the Governor on the State's progress towards meeting the goal. This Annual Report covers activities undertaken in fiscal year 2024. Due to the time lag in receiving and processing utility invoices, and to align with the State's participation in the Better Building Challenge and the Better Climate Challenge, the energy data is from CY23. The Annual Report also provides an opportunity for the Top 20 Agencies/campuses that consume 90% of the energy used in State-owned buildings to contribute narrative reports on their energy reduction strategies and projects.

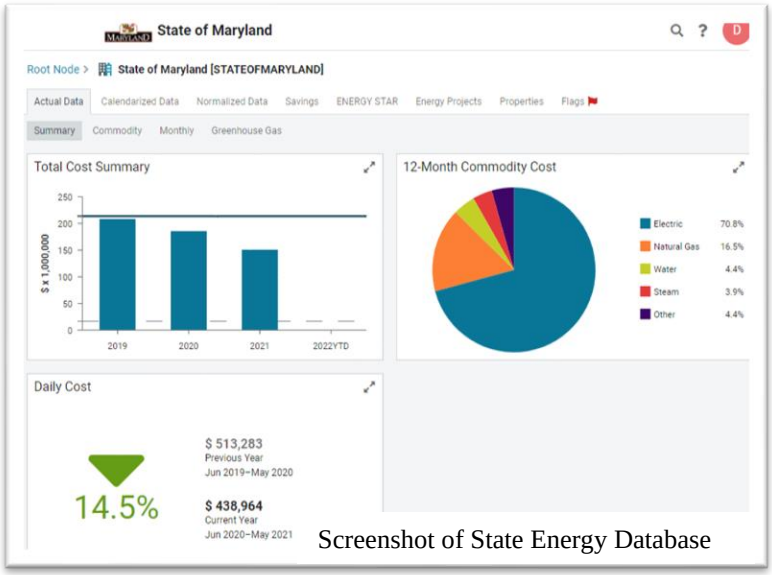
A significant change that occurred since CY22 is the substantial increase in the cost of energy. Both natural gas and electricity prices rose by up to 30% and are forecast to rise over the next year or two due to increases in capacity charges. DGS recognizes that increases in energy costs present attractive economic opportunities to invest in energy efficiency with payback periods for those investments becoming shorter with every incremental increase in the cost of energy.

DGS has several specific tasks outlined in the EO that, along with other energy-saving activities, will be reported in this and subsequent Annual Reports. The tasks include:

- Annually, analyze the entire inventory of State-owned buildings to identify and prioritize the least energy efficient buildings in the State.
- Annually, perform energy audits on the buildings identified, and present the audit report with recommendations to the buildings' owner(s).
- Measure post-installation energy use for one year following the installation of the measures identified in the audit reports.
- Report to the governor annually.

This report was compiled by the DGS Office of Energy and Sustainability (OES) and relies heavily on data from the State Energy Database. OES takes the lead role in coordinating with agencies and tracking progress towards meeting the twenty percent savings goal. OES operates the State Energy Database, manages the State's Energy Performance Contracting (EPC) program, Chairs the statewide Green Purchasing Committee, is responsible for installing electric vehicle (EV) charging equipment for the transition of the State fleet to EVs, develops plans to decarbonize State-owned facilities, partners with the University System to annually purchase over $150 million of electricity and natural gas used by state agencies, and is active in initiating energy saving projects throughout the State. OES also functions as the go-to resource for client agencies for all energy-related matters.

SUMMARY OF STATEWIDE BUILDING ENERGY USE



Screenshot of State Energy Database

Tracking the energy use of Maryland State government buildings is made possible through the Maryland State Energy Database which is the most comprehensive database of State government energy use in the country. Begun in 2008, the database has grown to include 14,000 utility accounts with 2.6 million invoices paid through 85 State agency accounts payable offices. In more recent years, DGS staff has updated the database with information on buildings to include their size, build date and primary use, and the database is currently being configured to accept building level submetered data. The constant updating, maintenance and improvements in the database make the current Statewide energy savings goal possible. We cannot manage what we cannot measure.

This report includes energy usage data from more than 7,000 State-owned buildings across forty-one State agencies and University campuses. **This report covers FY24 activities that occurred since the last Annual Report, but due to the time lag between receiving and processing**

utility bills, and to align with reporting for the Better Buildings and Better Climate Challenges, the energy data is from CY23.

Maryland State-owned buildings range in age from the 1670s to the present, with an average age of about 50 years. Much of the heating and cooling equipment in these buildings is ten to twenty years beyond its useful life expectancy. Fortunately, however, older buildings with old equipment provide a great opportunity to increase efficiency to save on utility bills and reduce environmental impact. Newer heating and cooling equipment, as well as lighting, is much more efficient than older units and the financial paybacks are often attractive.

The goal to reduce the energy use of approximately 97 million square feet of State-owned buildings owned by dozens of agencies and university campuses requires prioritizing a list of candidates to work with. Through polling the database, DGS discovered that in FY 2018 twenty State agencies and university campuses consumed 91% of the State's energy in State-owned buildings. These agencies and campuses became DGS' primary partners in working towards the 20% savings goal.

The baseline year of the EO is FY 2018, and the baseline data below is based on energy use and existing buildings as of FY 2018. The following non-building energy consuming entities were excluded from the report:

- Traffic lights, streetlights, transportation, and other structures that do not meet the definitions of "Independently Metered Buildings" or "Campuses" established above
- Buildings that are not owned by the State as of FY 2018
- Buildings that were demolished prior to FY 2018
- New construction after FY 2018

Entire State Government Energy Usage and Cost in State-Owned Buildings:

	Utility Cost ($)	Energy Usage (MMBtu)	Floor Area (SqFt)	Change in Floor Area	EUI (kBtu per SqFt)	Change in EUI
FY18	$180,773,778	9,626,166	94,962,952	-	101.4	-
FY19	$172,691,078	9,431,236	94,962,952	-0.00%	99.3	-2.03%
FY20	$154,087,076	8,787,368	94,406,654	-0.59%	93.1	-8.18%
FY21	$147,695,291	8,591,009	94,269,438	-0.73%	91.1	-10.10%
CY22	$213,892,475	8,416,975	94,032,792	-0.98%	89.5	-11.70%
CY23	**$200,220,211**	**8,542,634**	**93,738,491**	**-1.29%**	**91.1**	**-10.10%**

Top 20 Agencies using 91% of the energy in the State:

	Energy Usage (MMBtu)	Floor Area (SqFt)	Change in Floor Area	EUI (kBtu per SqFt)	Change in EUI
FY18	8,743,095	84,946,651		102.9	
FY19	8,589,148	84,946,651	0.00%	101.1	-1.76%
FY20	8,009,928	84,560,519	-0.45%	94.7	-7.97%
FY21	7,786,027	84,431,103	-0.61%	92.2	-10.40%
CY22	7,622,137	84,212,025	-0.86%	90.5	-12.06%
CY23	**7,740,466**	**83,953,117**	**-1.17%**	**92.2**	**-10.42%**

Remaining agencies:

	Energy Usage (MMBtu)	Floor Area (SqFt)	Change in Floor Area	EUI (kBtu per SqFt)	Change in EUI
FY18	883,071	10,016,301		88.2	
FY19	842,088	10,016,301	0.00%	84.1	-4.64%
FY20	777,440	9,846,135	-1.70%	79.0	-10.44%
FY21	804,981	9,838,335	-1.78%	81.8	-7.19%
CY22	794,839	9,820,767	-1.95%	80.9	-8.20%
CY23	**802,168**	**9,785,374**	**-2.31%**	**82.0**	**-7.02%**

STRATEGIES FOR ACHIEVING ENERGY REDUCTIONS IN STATE OPERATIONS

OES is pursuing a three-pronged approach to achieve the energy savings goal of the EO; 1) identify savings opportunities through performing energy audits, 2) engage in EPCs and other energy projects, and 3) agency engagement. OES is working closely with Maryland utilities on all efficiency projects to take advantage of their technical resources and rebate opportunities. OES is also coordinating with DGS Facilities Engineering division on replacement HVAC systems to ensure that DGS and DGS' client agencies are installing efficient, cost-effective systems that not only meet the goals of the EO but meet the State's GHG reduction efforts as well.

Energy Audits

The energy auditing program is described in detail in Sections 3&4 below.

Energy Performance Contracting (EPC) Program

EPCs are large projects dedicated to reducing the energy costs of a facility, in which the savings, guaranteed by the company performing the work, covers the cost of the project. OES drafts and issues the master contract for the EPC program, advises and assists agencies with individual projects, and coordinates with the State Treasury Office on financing. There are currently 21 active EPCs, with annual guaranteed savings of $16.5 million, and annual GHG reductions of 61,445 tons of CO-2.

In the 2020 session of the General Assembly, DGS introduced a bill that was subsequently passed by the legislature to increase the reliability and value of future EPC projects. Each EPC going forward will require DGS' review and approval before going to the Board of Public Works and will require DGS to review each annual Measurement and Verification Report to assure that the annual guaranteed savings have been met.

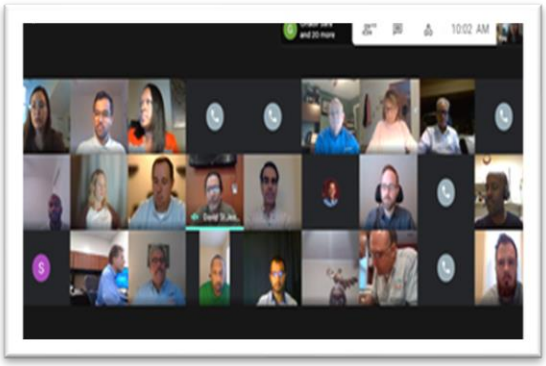
In the 2021 session of the General Assembly, DGS introduced SB 179 that was subsequently passed. Senate Bill 179 extended the potential maximum lease term for an Energy Performance Contract (EPC) from 15 years to 30 years. Extending the potential lease term to up to 30 years allows for larger-capital intensive pieces of equipment, such as HVAC systems, replacement windows and envelope improvements such as air sealing and insulation, and other longer payback conservation measures to be included in possible EPC projects. The longer lease life would enable the equipment to reach its payback period, which is beyond the current 15-year lease limit, so that each measure is paid for through the project's guaranteed savings. Extending EPCs to up to 30 years would positively impact DGS and other State agencies by allowing for more effective and efficient ways to address deferred maintenance items and other projects.

Where EPCs are viable projects, they will become a major source of savings and will play a significant role in achieving the goal of the EO. However, EPCs typically require up to two years of design and development before energy saving measures are installed, and another year before those savings are accounted for and attributed. Therefore, significant savings from new EPC projects will only begin to show up during the fourth or fifth year of the EO.

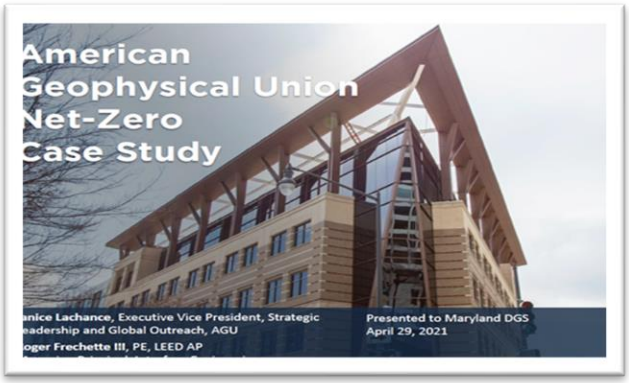
OES entered into a contract in 2022 with a firm to provide third-party review of the annual Measurement and Verification (M&V) reports submitted by energy service companies (ESCO) under contract with the State. The annual M&V reports are created by ESCOs to track the energy use at several EPC projects to assure that the annual savings guarantee is met. The firm chosen through the RFP brings professional third-party M&V review to the EPC program and provides the State with a high level of confidence that promised savings are being met. The firm is also available to assist OES in developing energy baselines for all EPC projects.

Moving forward, OES intends to integrate decarbonization with EPC projects. Since decarbonization does not in itself provide financial savings, OES will be seeking to add funds to EPC projects.

Agency Engagement



The Executive Order recognizes that the tasks outlined for DGS will not on their own achieve the 20% savings goal, and the EO states that "*All units of State government shall, in support of their core missions, implement projects and initiatives to conserve energy and reduce their greenhouse gas emissions* ". In light of this, and in an effort to collaborate and coordinate on energy savings activities throughout State government, OES initiated quarterly meetings of the Working Group on Reducing Energy use in State Operations. The Working Group, chaired by DGS OES, includes representatives of the 20 agencies and university campuses that consume 91% of the energy used in State operations. The Working Group continued to meet virtually during the pandemic and met two times in FY 2024 to share information on each entity's efforts to achieve the energy reduction goal, to inform each other about ongoing and future energy projects, and to educate the members on new technologies and opportunities in the energy field. One or two private sector firms were invited to each meeting to give presentations on energy efficiency opportunities, utility rebates, and emerging technologies. Attendance at the virtual meetings was excellent, with between forty to fifty participants at each.



Members of the Working Group, their baseline energy use in FY 2018, and building area:

Rank	Agency	Floor Area (SqFt)	FY18 Energy Use (MMBtu)	% of State Total MMBtu
1	University of Maryland College Park (UMCP)	14,767,416	1,798,702	18.69%
2	Public Safety & Correctional Srvcs, Dept of (DPSCS)	12,828,571	1,312,002	13.63%
3	University of Maryland Baltimore (UMB)	5,950,069	904,967	9.40%
4	University of Maryland Baltimore County (UMBC)	4,467,954	580,472	6.03%
5	General Services, Dept of (DGS)	6,498,791	575,501	5.98%
6	Maryland Aviation Administration (MDOT-MAA)	2,920,577	567,330	5.89%
7	Towson University (TU)	6,036,906	463,915	4.82%
8	Health, Maryland Dept of (MDH)	3,208,181	382,122	3.97%
9	Morgan State University (MSU)	3,396,043	342,866	3.56%
10	Maryland Transit Administration (MDOT-MTA)	1,835,833	338,776	3.52%

11	Frostburg State University (FSU)	1,541,581	207,429	2.15%
12	Salisbury University (SU)	2,217,621	182,154	1.89%
13	Stadium Authority, MD (STADAUTH)	4,274,000	168,040	1.75%
14	University of Maryland Eastern Shore (UMES)	1,093,365	154,368	1.60%
15	Bowie State University (BSU)	1,332,563	153,917	1.60%
16	State Highway Administration (MDOT-SHA)	2,276,739	139,194	1.45%
17	Maryland Port Administration (MDOT-MPA)	6,513,833	134,714	1.40%
18	Coppin State University (CSU)	1,096,489	125,809	1.31%
19	Maryland Transportation Authority (MDTA)	1,082,817	113,602	1.18%
20	Military Dept (DMIL)	1,607,302	97,215	1.01%

PROGRESS ON DGS ENERGY-SAVING INITIATIVES

1. Determine FY 18 Baseline

In order to accurately measure progress towards the 20% energy reduction goal, an energy use baseline was established. Over several months in 2019 and 2020, the data team at OES requested and received utility bill data from agencies, which was analyzed using the State Energy Database to determine the FY18 baseline and confirm its completeness. The database is the most comprehensive resource of State facility energy use and cost in the nation and is continually improved through gathering and uploading agency supplied data. Since the database also includes data attributes of the facilities themselves, such as building size, age and primary use, it enables the State to establish an agency specific, and statewide baseline of usage, and to track and report on progress for each project.

The OES manages a longstanding and ongoing comprehensive data collection campaign to collect from agencies any missing utility bills and any missing building data attributes, including building size (gross square footage), building age, primary use and energy meters serving each facility. For the EO, the data team collaborated with agencies to identify the portion of their portfolio that falls under the scope of the Executive Order (i.e., state-owned buildings) to confirm that their energy use is accurately attributed. Energy use associated with leased facilities, and from non-buildings (for example, mass transit, traffic lighting, highway lighting, signage, etc.) are excluded from the baseline and the goal of the Executive Order, but energy reductions and current projects on non-buildings will be reported by select individual agencies in the Annual Report. A more detailed description of data reporting methodology is included in Appendix 1.

In FY 2022, in an effort to achieve a more complete and accurate dataset, DGS initiated an "Energy Data Centralization" program. The current system requires utility vendors to submit their invoices to accounts payable offices at State agencies, who then submit the invoices to the database contractor. The new program, which uses DGS as a test case, has the utility vendors submitting their invoices directly to an IT platform managed by the database contractor. Agency accounts payable staff can then access the platform and download PDF copies of their invoices

and process them in the usual manner. DGS hopes that by receiving invoices in this manner, we will get a higher percentage of on-time utility bills which will enable us to report more accurately for climate and energy-savings related projects. After the DGS pilot, OES hopes to roll the program out to other agencies.

2. Identify Savings Opportunities

Energy professionals at OES have developed several strategies to identify buildings to retrofit. To reduce the State's costs, OES is working with BGE, SMECO, PEPCO and Delmarva utilities to identify groups of buildings that are qualified for various rebate programs. Each group of buildings will have projects addressed through the audit, procurement and implementation phases depending on the type of rebate available, and the associated utility guidelines. Concurrently, OES and the energy auditors use the database to identify and prioritize buildings to be audited that lie outside of standard utility rebate programs, which will include the master-metered campuses.

Some of the buildings audited under the Executive Order will be good candidates for an Energy Performance Contract (EPC), but many will not. There are several agencies that own buildings, but do not spend enough annually on energy to be feasible for an EPC. Some examples include:

Agency	Owned Buildings (square feet)	FY22 Spend in Owned Buildings ($)
MD Public Television	140,497	$791,193
Veterans Affairs	358,048	$1,048,506
Food Center Authority	63,600	$61,533
Dept. of Planning	103,285	$246,217

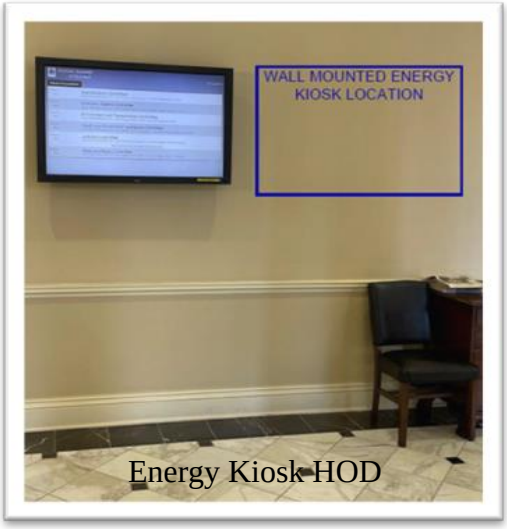
Other agencies, such as DNR (FY 2022 energy spend $2,703,195) have widespread facilities that offer good one-off opportunities but are poor candidates for an EPC. There are also several agencies that are currently under an EPC that began years ago, that have new savings opportunities due to improved lighting and other technological advancements in efficiency that have become available over the last 5-10 years. Non-EPC projects will be addressed in the manner described in Section 4 below.

3. Sub-metering

Over three quarters of the buildings in the State portfolio are on master-metered campuses, in which only one, or a few, central meters record the energy use of the entire campus. On these campuses, the energy use of each individual building is unknown. However, submetering at the building level would provide a window to energy use that DGS could use to identify poor performers, be alerted to increases in energy use, track energy savings of individual projects, and inform the "right sizing" of HVAC replacements. Recognizing the potential benefits of metering, in 2020 DGS initiated a

building-level submetering program that will harvest data from currently un-metered buildings and send that data to the State Energy Database.

During 2019 and 2020, OES solicited submeter installation firms, developed a Meter Plan for the Annapolis Capitol Complex, entered into an MOU with MEA to access federal grant funds, and in early 2021 moved forward with installing building-level submeters at the entire Annapolis Capitol Complex. All data from the submeters, which includes meters for steam, chilled water, city water and electricity will be automatically uploaded to the State Energy Database and will be accessible via wall-mounted video monitors at the Miller Senate and the House of Delegates and a free-standing kiosk at the State House. The project was completed in August 2023 and OES has begun to analyze the data to identify energy-savings opportunities in Annapolis.



Energy Kiosk-HOD

4. Perform Energy Audits

The EO requires DGS to conduct energy audits on at least 2 million square feet of State-owned buildings annually. In March 2020, DGS signed its first MOU with Small and Smart Thermal Systems Laboratory (S2TS) at the University of Maryland, College Park to perform audits on State-owned buildings throughout the state. S2TS is comprised of a team of graduate mechanical engineering students, with oversight from faculty and professional engineers, who have experience performing energy audits at the College Park campus. OES has a full-time energy auditing program manager on staff to oversee the effort. DGS feels that this arrangement provides not only cost-effective energy auditing services, but also provides valuable on-the-job training for recent graduates of the University of Maryland.

Per the EO, energy audits have concentrated on finding low-cost measures for increasing energy efficiency that will result in energy cost savings within five to ten years that meet or exceed the costs of the measures themselves. The auditors have been instructed to evaluate all measures at each site assigned to them and to blend the savings of the suite of measures to achieve an overall five to ten-year payback period per project.

In July of 2023 the auditing team started their third round of energy assessments under a new MOU. In April of FY 2023, Energy Savings Analysis (ESA) reports were completed on 1,493,612 sq ft of MTA buildings and stations.

The ESAs were accepted by MTA in June 2023 and the project was closed out. MTA will be using the ESA reports as a basis for an EPC project.

A Rapid Energy Auditing (REA) tool was developed by the energy auditing team in FY 2023-2024 with the ability to virtually rank state buildings by energy usage and carbon emissions. Virtual audits are simultaneously being completed on 28,011,669 sq. ft. of facilities

5. LED Lighting Project

Between FY 2021-2024 DGS encumbered $6,380,00 million in SEIF funds and an additional $2,873,548 in loans from MEA to install approximately 47,017 LED lighting fixtures and controls throughout 3,043,452 square feet of State-owned buildings. Annual cost savings from the projects will be over $1.2 million with electricity savings of 5,625,853 million kWh per year.

6. Green Purchasing Specifications

As Chair of the Green Purchasing Committee, DGS is responsible for creating "green specifications" for a range of products that are purchased by the State. Over the past year, DGS has created purchasing specifications for lighting, HVAC and plumbing fixtures that specify an increase in efficiency of each product purchased. The increases in efficiency bring the purchases of these items in line with the requirements of the High-Performance Building Program and other energy and environmental goals and programs.

The green specifications have been included as an appendix to the DGS Procedure Manual and have been socialized to DGS construction and maintenance divisions, the architectural and engineering firms under contract to DGS, and the Office of State Procurement. As the specifications are drafted, they are sent to DGS professional staff for internal review and to outside technical consulting firms to determine market availability. We expect that as these specifications are incorporated into future task orders and contract documents, they will result in significant cost, environmental and energy savings for both new construction and facility maintenance and renewal projects.

7. Integration with DGS Construction Divisions

OES has been working with DGS Capital and Facilities Maintenance divisions over the past two years to integrate "green" and energy efficient building practices into building design and renovations. OES drafted a "Green Building Standards" document and presented its contents on a webinar with several of the capital and maintenance division project managers. Following that presentation, OES held a webinar for project managers on "HVAC Sizing Considerations" to overcome a common problem when designing new and replacement HVAC systems. In order to make green building an ongoing and permanent part of DGS' decision-making process, OES drafted an addendum to the DGS Procedure Manual that incorporates energy efficient and sustainable design into common practices.

ACTIVITY REPORTS FROM THE TOP 20 ENERGY USERS

OES offered each of the top 20 energy-using agencies and university campuses in the State, all of whom are members of the Working Group on Reducing Energy use in State Operations, an opportunity to update their FY 2023 efforts in the sections below. Previous Annual Reports contain information on each agency/campus for the period prior to FY 2023. Below the heading for each agency is a snapshot of energy usage and data compliance compiled by data analysts at OES. All energy usage data is reported by each agency to the State Energy Database.

The Executive Order recognizes that data compliance is critical to accurate reporting for each agency and states that, "*Each unit of State government shall, each month, or upon request, provide DGS with access to available data about its facility and copies of the unit's utility bills*". Therefore, DGS is also reporting on the data compliance of each Agency, in terms of the number of utility bills still missing from the State Energy Database and the estimated value of those bills, based on historical trends.

The Energy Data and Compliance Snapshot is followed by a self-report of energy efficiency activities, submitted by the agency or university campus. Where there is no report, none was submitted to DGS.

I. University of Maryland College Park (UMCP)

Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	Change in usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	14,767,416*	1,798,702*		18.69%	121.8*
FY19	14,767,416*	1,814,048*	+0.8%*	19.23%	122.8*
FY20	14,767,416	1,621,326	-9.9%	18.44%	109.8
FY21	14,767,416	1,609,390	-10.5%	18.73%	109.0
CY22	14,767,416	1,663,308	-7.5%	19.76%	112.6
CY23	14,767,416	1,540,263	-14.4%	18.03%	104.3

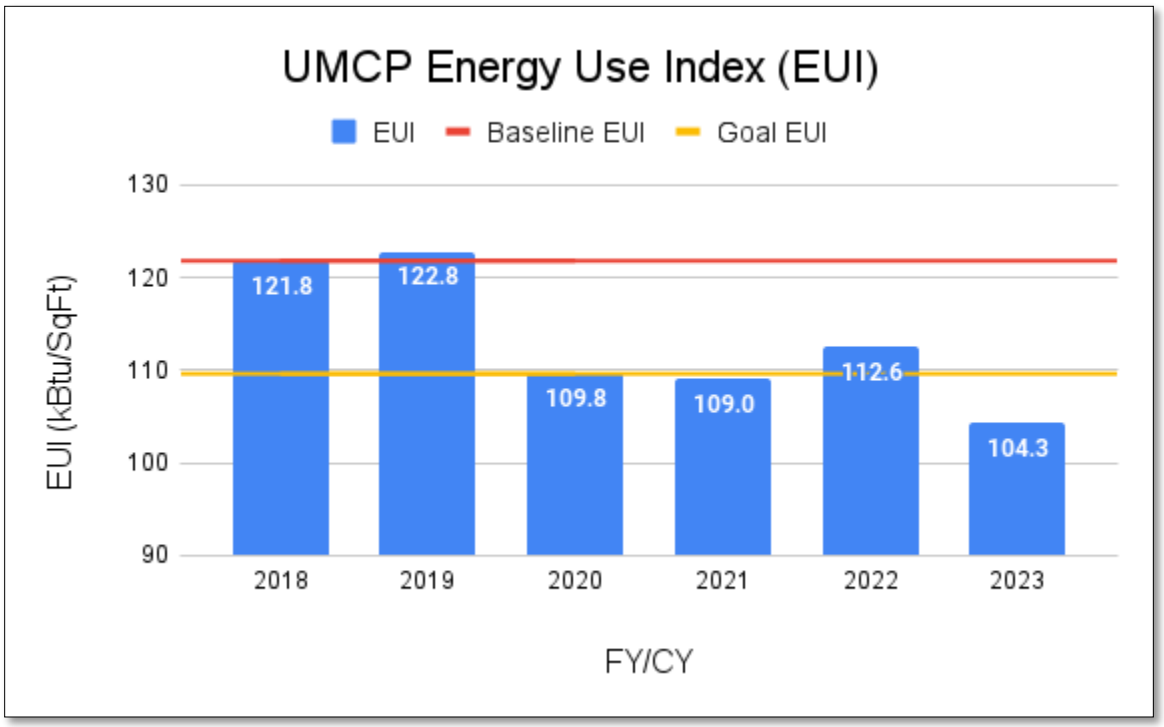
*Updated from FY18-19 Annual Report.

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	96.17%	117	$62,924

FY19	96.17%	161	$183,427
FY20	96.17%	54	$34,399
FY21	96.17%	157	$112,155
CY22	96.17%	66	$33,485
CY23	96.71%	139	$70,539

Change in Energy Use Index (EUI):



Agency report:

Annual Report to the Governor's Executive Order 01.01.2023.07
Reporting Periods – CY 2023, FY 2024

GSF of Buildings:

	GSF of Buildings	MMBTU	Change in Usage from Baseline Year	% of State Total MMBTU	EUI (kBtu/GSF)
FY18 (baseline)	14,767,416	1,798,702			121.8
FY19	14,767,416	1,814,048	0.8%*		122.8
FY20	14,767,416	1,621,326	-9.9%		109.8
FY21	14,767,416	1,609,390	-10.5%		109.0
FY22	14,767,416	1,663,308	-7.5%		112.4
FY23	14,767,416	1,591,331	-11.5%		107.8
CY23	14,835,997*	1,571,634	-12.6%		105.9
FY24	14,835,997*	1,582,300	-12.0%		106.7

*Revised due to changes in inventory and corrections

The University of Maryland, College Park, is the state's flagship university and one of the nation's preeminent public research universities. A global leader in research, entrepreneurship, and innovation, the university is home to more than 40,800 students, 14,900 faculty and staff, and 400,000 alumni dedicated to pursuing Fearless Ideas. Located just outside Washington, D.C., we discover and share new knowledge every day through our renowned research enterprise and programs in academics, the arts, and athletics. And we are committed to social entrepreneurship as the nation's first "Do Good" campus.

The University of Maryland became a charter signatory of the American College and University Presidents Climate Commitment in 2007 and put itself on the path of greater environmental stewardship and sustainability. Since that time, the university adopted a Strategic Plan in 2008, a Climate Action Plan in 2009, a Facilities Master Plan in 2011, a Sustainable Water Use and Watershed Report in 2014, and several other guiding documents that together paint a vivid picture of a SustainableUMD.

UMD is proud to participate in the EPA's Green Power Partnership. Since 2014, UMD has consistently placed on the EPA's list of the Top 30 Colleges and Universities with the largest green power users. For the latest reporting period, July 25, 2024, UMD is ranked #7 among colleges and universities and #94 on the National Top 100 list.

In 2020, the university reached its aggressive and lead-by-example goal of 100% purchased electricity from renewable sources. In April 2021, the University of Maryland announced it was redoubling its efforts to fight climate change and committed to carbon neutrality by 2025 through

a mix of infrastructure improvement, electric vehicle purchases, and targeted investments in sustainability. We are in the final stages of updating our Climate Action Plan to outline strategies that will help us achieve this accelerated timeline for carbon neutrality. Key recent accomplishments and plans include the following:

- In May 2024, the university received approval to move forward with its NextGen Energy Program. This public-private partnership puts UMD on a pathway to achieve the university's goal of a fossil fuel-free energy system by 2035 and will increase efficiency and sustainability. The NextGen Energy Program stands to cut carbon emissions by 23% and reduce water consumption by 50% a year when compared to the current system which has reached its end of useful life.
- The university continues with its commitment to fleet electrification. Fifty-one distinctive electric vehicles, 25 vans, 23 pickups, and three SUVs, were recently placed into service. These electric vehicles (EVs) are an important step toward the university's goal of a fully electric fleet by 2035. Additionally, we are near completion of an EV infrastructure master plan that outlines the charging infrastructure and investments required to support full fleet electrification as well as the growing EV charging needs of the campus community.
- Last year, the university was selected to receive nearly $40 million in grant funding to fast-track plans to convert its bus fleet from diesel to electric-powered. The funds from the U.S. Department of Transportation's Federal Transit Administration (FTA) will be used to purchase 35 battery electric buses, bus charging stations, and associated infrastructure and train drivers and maintenance staff to operate and service electric buses.
- UMD is working closely with Pepco to use its incentive programs to support its transition to zero-emission vehicles. The university continues to expand outreach and maintains a data-driven website (SustainableUMDProgressHub) that allows users to learn all about the sustainability-related activities that are completed, in progress and planned for at UMD.
- The university is implementing several new programs that are consistent with its energy management plan. These include standing up an internal energy tiger team that will analyze and prioritize energy conservation efforts for high EUI buildings using AI technologies and new collaborations with faculty and students to assist in achieving energy reduction goals.

UMD's report is utilizing site energy data, rather than utility bills. The reason for this methodology is the large, combined heat and power (CHP) plant at UMD. As it reached beyond its 20-year equipment life span, the CHP has been unreliable in the past few years, and fluctuations in operating hours year over year significantly impact total MMBtus, which is the metric for this report. Utilizing utility bills does not account for the inherent efficiency of a CHP plant which, when operating at capacity, provides approximately half of the campus electricity consumption and all of its steam requirements for heating and process loads. Reporting the gas MMBtus associated with the CHP would be the equivalent of a source energy resource, co-mingled with other site energy resources such as grid-purchased electricity. It would not be comparable to other state agencies' reports since they do not have distributed generation

capabilities. Because of its extensive building sub-meter network, UMD can provide site energy use data comparable to what other state agencies are reporting.

Reductions against the baseline year result from ongoing energy efficiency upgrades, including the continued pursuit of lighting retrofits and ongoing operation and maintenance programs. The latter seeks to improve HVAC system performance. These systems contribute significantly to campus energy use and minor improvements in operating and maintenance best practices can significantly improve overall energy use. UMD continues to roll out its automated scheduling program for large spaces, which reduces HVAC energy demand during unoccupied/unscheduled periods. Additional energy reporting and management tools based on UMD's extensive building automation and monitoring systems are planned in FY25 to identify additional savings opportunities. Implementation of savings opportunities will be completely dependent on availability of funds given the state's budgetary challenges.

II. Department of Public Safety & Correctional Services (DPSCS)

Agency Energy Usage Snapshot:

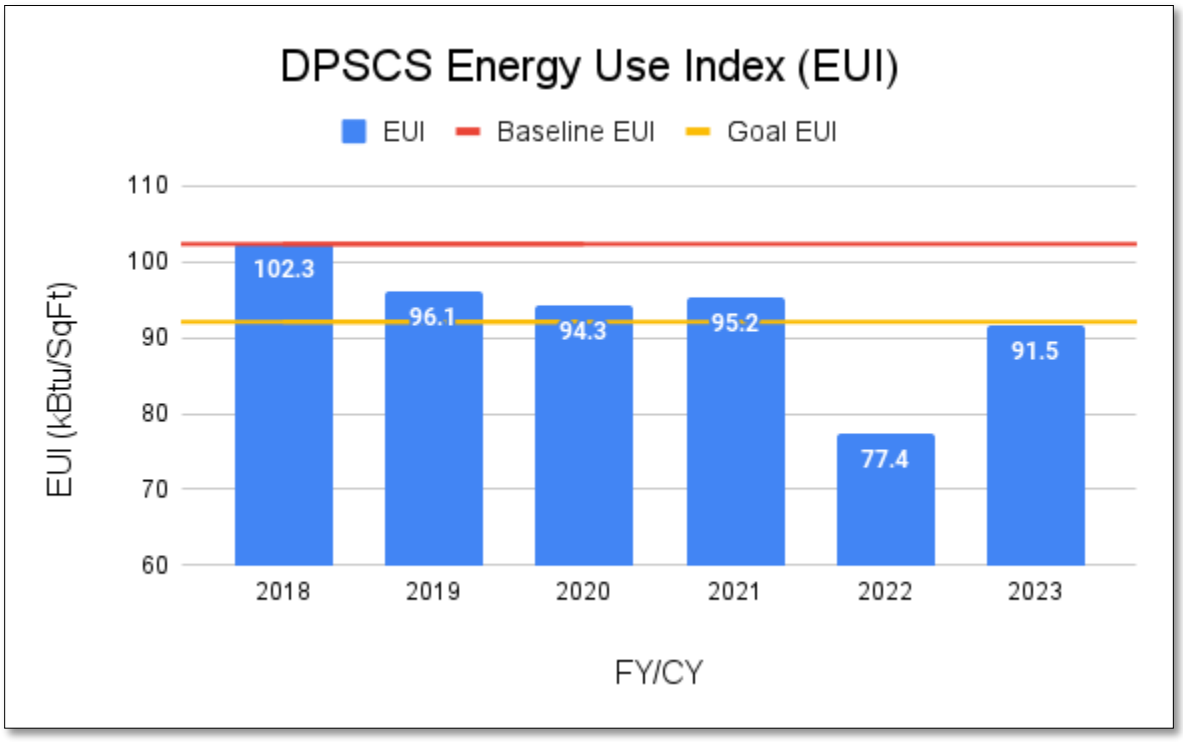
ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	12,828,571*	1,312,002*		13.63%	102.3*
FY19	12,828,571*	1,232,286*	-6.1%*	13.07%	96.1*
FY20	12,828,571*	1,210,010*	-7.8%*	13.76%	94.3*
FY21	12,828,571	1,221,746	-6.9%	14.22%	95.2
CY22	12,828,571	993,156	-24.3%	11.80%	77.4
CY23	12,828,571	1,173,606	-10.5%	13.74%	91.5

*Updated from FY18-19 Annual Report.

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	80.19%	12	$135,492
FY19	80.19%	9	$652
FY20	80.19%	88	$258,065
FY21	80.19%	67	$48,783
CY22	80.19%	33	$18,510
CY23	80.19%	21	$8,803

Change in Energy Use Index (EUI):



Agency report: No update.

III. University of Maryland Baltimore (UMB)

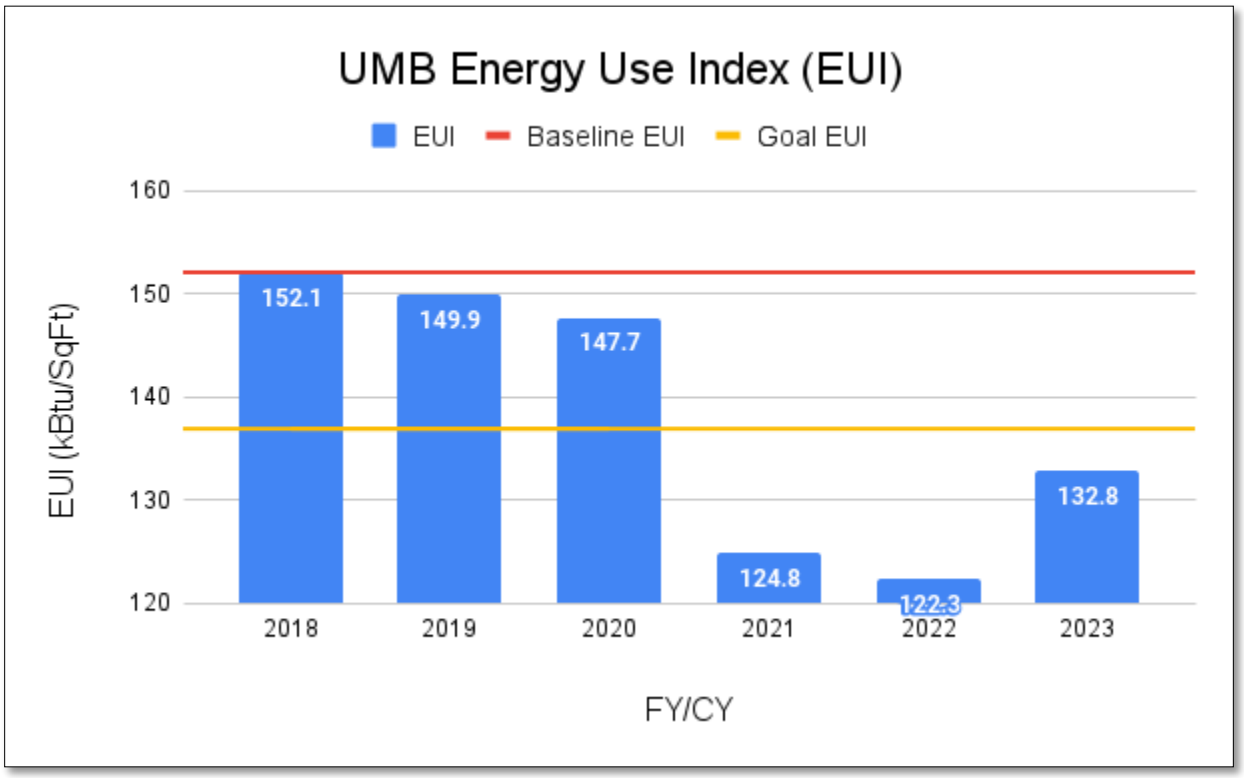
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	5,950,069	904,967		9.40%	152.1
FY19	5,950,069	891,677	-1.5%	9.45%	149.9
FY20	5,950,069	879,027	-2.9%	10.00%	147.7
FY21	5,950,069	741,666	-17.9%	8.63%	124.8
CY22	5,945,069	727,119	-19.6%	8.64%	122.3
CY23	5,945,069	789,472	-12.7%	9.24%	132.8

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	0	$0
FY19	100%	0	$0
FY20	100%	6	$3,242
FY21	100%	3	$113
CY22	100%	0	$0
CY23	100%	0	$0

Change in Energy Use Index (EUI):



Agency Report: No update.

IV. University of Maryland Baltimore County (UMBC)

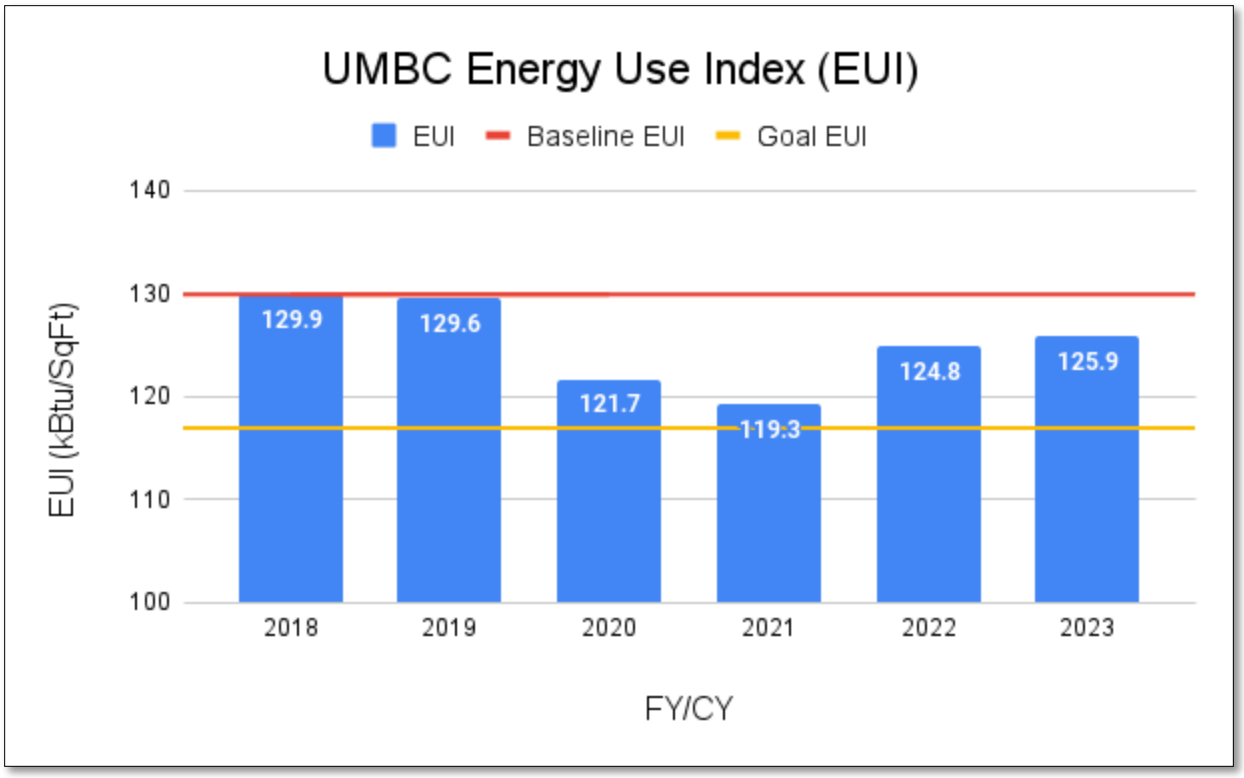
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBtu	EUI (kBtu/SqFt)
FY18 (baseline)	4,467,954	580,472		6.03%	129.9
FY19	4,467,954	579,017	-0.3%	6.14%	129.6
FY20	4,467,954	543,597	-6.3%	6.18%	121.7
FY21	4,467,954	533,055	-8.2%	6.20%	119.3
CY22	4,467,954	557,480	-3.9%	6.62%	124.8
CY23	4,467,954	562,580	-3.1%	6.59%	125.9

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	0	$0
FY19	100%	0	$0
FY20	100%	0	$0
FY21	100%	0	$0
CY22	100%	0	$0
CY23	100%	0	$0

Change in Energy Use Index (EUI):



Agency report: No update.

V. Department of General Services

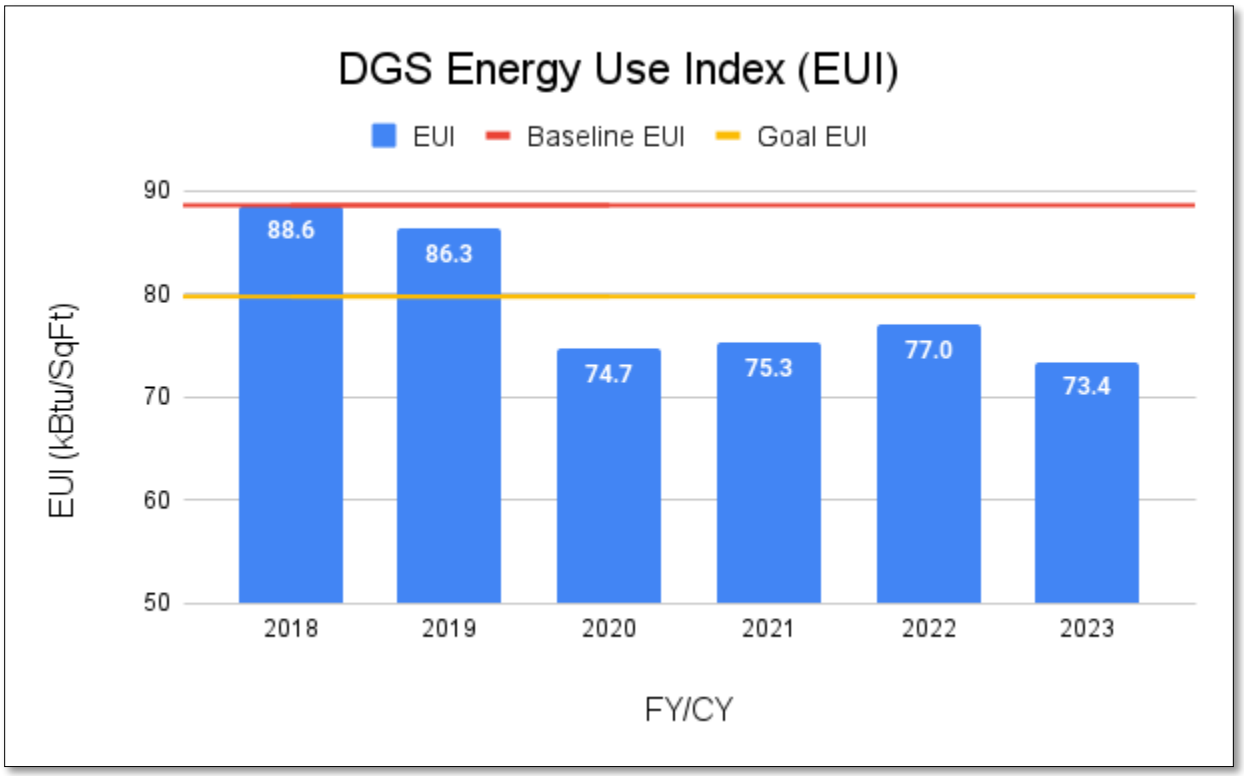
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	Change in usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	6,498,791	575,501		5.98%	88.6
FY19	6,498,791	560,793	-2.5%	5.95%	86.3
FY20	6,498,791	485,168	-15.7%	5.52%	74.7
FY21	6,498,791	489,171	-15.0%	5.69%	75.3
CY22	6,466,134	498,067	-13.1%	5.92%	77.0
CY23	6,466,134	474,935	-17.1%	5.56%	73.4

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	7	$15,167
FY19	100%	16	$36,029
FY20	100%	0	$0
FY21	100%	12	$21,642
CY22	100%	0	$0
CY23	100%	0	$0

Change in Energy Use Index (EUI):



Agency report:

Please see the write-up on pages 10 through 18.

VI. Maryland Aviation Administration (MDOT-MAA)

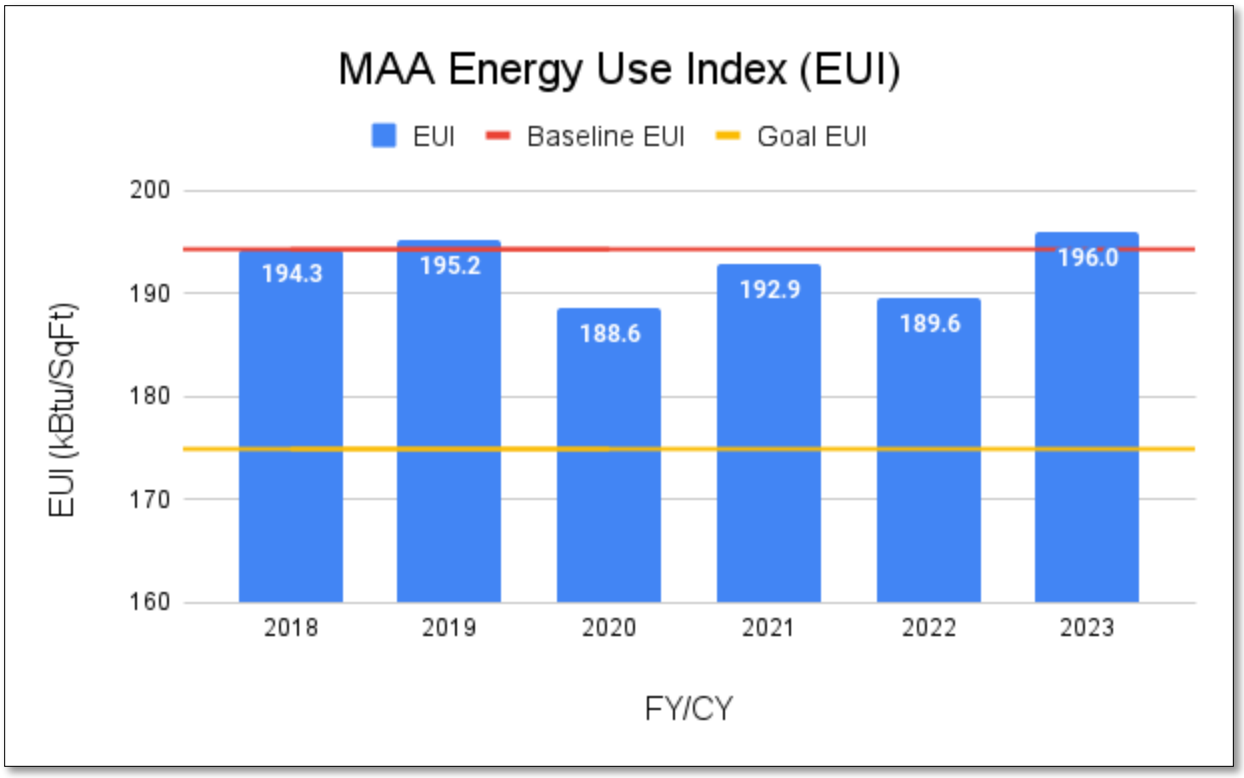
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	2,920,577	567,330		5.89%	194.3
FY19	2,920,577	570,231	+0.5%	6.05%	195.2
FY20	2,920,577	550,780	-2.9%	6.26%	188.6
FY21	2,920,577	561,828	-0.7%	6.54%	192.9
CY22	2,912,077	552,165	-2.4%	6.56%	189.6
CY23	2,912,077	570,903	+0.9%	6.68%	196.0

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	0	$0
FY19	100%	28	$19,582
FY20	100%	6	$8,759
FY21	100%	46	$10,821
CY22	100%	30	$14,720
CY23	100%	0	$0

Change in Energy Use Index (EUI):



Agency report: No update.

VII. Towson University

Agency Energy Usage Snapshot:

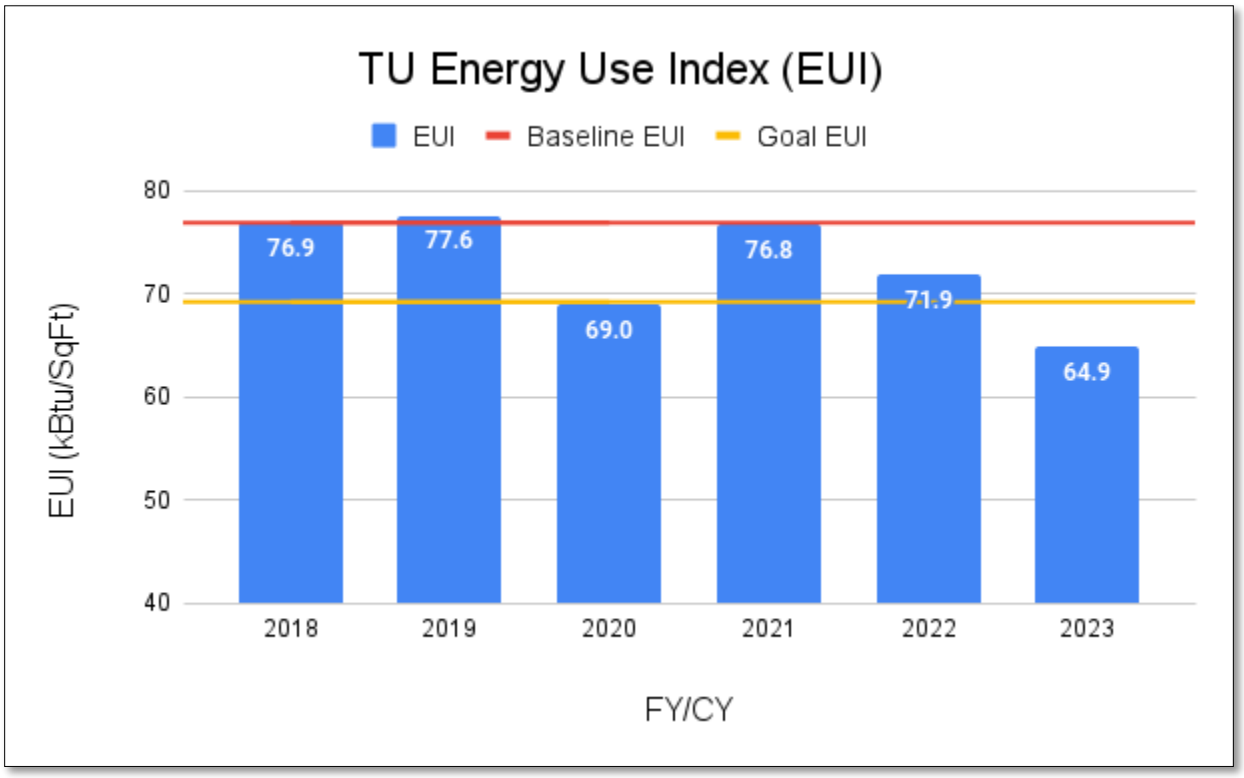
ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	6,036,906	463,915		4.82%	76.9
FY19	6,036,906	468,144	+0.9%	4.96%	77.6
FY20	6,036,906	416,416	-10.3%	4.74%	69.0
FY21	6,036,906	463,515	-0.1%	5.39%	76.8
CY22	6,124,353	440,163	-6.5%	5.23%	71.9
CY23	6,124,353	397,460	-15.6%	4.65%	64.9

Missing bill and data report:

DATA COMPLIANCE

	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	0	$0
FY19	100%	0	$0
FY20	100%	0	$0
FY21	100%	0	$0
CY22	100%	0	$0
CY23	100%	0	$0

Change in Energy Use Index (EUI):



Agency report:

Towson University, the largest Baltimore area university is a 329-acre campus, has an enrollment of 19,527 students and approximately 4000 faculty & staff, and is spread out among seven colleges, including 110 undergraduate majors, 47 master's programs and seven doctoral degree programs. Towson University became a signatory of the American Colleges and Universities Presidents' Climate Commitment (ACUPCC) in 2007. By signing the ACUPCC, TU pledged to reduce Greenhouse Gas Emissions 20% by 2020 and 50% by 2030 with a goal of carbon neutrality by 2050.

In 2013 TU became a signatory of the Department of Energy's (DOE) Better Buildings Challenge committing to reduce total campus energy (EUI) 20% by 2020 from a baseline year of 2010. In addition, by signing on to the Better Buildings Challenge, TU committed to providing all monthly energy

consumption data to the DOE through the Energy Star Portfolio Manager on-line database. This database also provides TU energy benchmarking data for high performance buildings.

In 2017 TU reached its Department of Energy Better Buildings Challenge goal of 20% Energy Reduction three years early and received an award from DOE. By 2019 TU reached 22% energy reduction from a baseline year of 2010. 2019 also saw the signing of Governor Hogan's Executive Order 01.01.2019.08 requiring all State institutions reduce energy consumption an additional 10% by 2028 from a baseline year of 2018. In 2023, Governor Moore rescinded this order and issued a new Executive Order 01.01.2023.06 requiring all State facilities reduce energy consumption (EUI) 20% by 2031 compared to a baseline year of 2018.

During 2020 and 2021 TU saw energy swings as the campus navigated through the pandemic. During this time TU like others switched to remote learning and work but most buildings remained open with varying energy demands throughout the pandemic due to increased ventilation rates being implemented in most buildings. Energy consumption did not normalize again until 2022.

In 2022 Maryland passed the Climate Solutions Now Act (CSNA). The CSNA is some of the most aggressive environmental legislation in the US which requires 60% emissions reduction by 2030 and net zero by 2045. This law will require full electrification of all buildings as well as adherence to a set of building energy performance standards including very specific energy usage intensity (EUI) targets.

During CY 2023 and FY 2024 TU implemented additional energy reduction strategies improving on an energy program that was launched in 2012. These additional strategies included an expansion of the strategic energy management plan, adding staff to our in-house energy team, and continuing to roll out the campus wide Building Automation Systems to multiple buildings across campus. In addition, campus energy standards were enhanced to ensure that all new construction/renovation projects included the most efficient building systems possible, and the campus wide central energy monitoring system was expanded to allow real-time and historical trending of not just building wide consumption data but electric sub-meter data, water sub-meter data from over 100 state-of-the-art ultrasonic water meters, and a robust chiller plant dashboard with high resolution thermographics. This allows TU energy personnel to take action to address unfavorable trends and high energy consumption areas quickly.

In FY 2024, TU saw a reduction in campus wide energy consumption by 4%. A new College of Health Professions building came online during the same period while Smith Hall shut down and began demolition as part of a major renovation project expected to take place over the next several years.

In addition, in FY 2024 TU began a campus wide EV study working with a consultant to inventory and record all gasoline and diesel campus vehicles. As part of this study, recommendations will be made to install EV smart chargers across campus with a goal to begin converting fleet vehicles to EV's. And, in FY2024, TU moved to 100% of all purchased electricity to be purchased from renewable sources!

During the past 18 to 24 months, TU has continued implementing energy efficiency initiatives/projects that have reduced campus-wide EUI while the campus continues to expand. Some examples of the efforts are:

- Completed the renovation of several large residence towers (Glen Towers) which included adding high performance building envelopes, high efficiency heat pumps and smart building controls. These energy savings measures have resulted in an energy reduction (EUI) of over 35%

in each tower and annual savings of over $55,000 in each building. Once complete in CY 2025, this renovation will include all 4 Glen Towers with an annual savings of over $220,000 and an annual reduction of over 2,000,000 kWh's.

- Completed the expansion of Building Automation Systems (Automated Logic) throughout multiple buildings across campus including Hawkins Hall, Marshall Hall, Van Bokkelen Hall, Lecture Hall and 7800 York Rd. The expansion of BAS allows the implementation of smart scheduling, set point and real-time monitoring, and energy optimization. Typical HVAC energy reduction is realized of 10% to 20% in BAS monitored buildings. Additional buildings are scheduled for BAS implementation in FY 2025.
- Continued to implement LED lighting and controls upgrades across campus. These upgrades have resulted in lighting energy reductions of 30% to 50%. Recent examples are 10 west Conference Center, Hawkins Hall 5th floor, Cook Library 3rd and 5th Floors and others.
- The new Smith Hall construction/renovation project currently under construction and scheduled to open in 2026 will include TU's first Geothermal System with close to 240 wells and a total building EUI modeled at below 40. The building will be TU's first all-electric academic building and is on-track to meet LEED Gold Certification. It will include many deep energy conservation measures such as high efficiency heat pumps, demand control ventilation, premium efficiency LED lighting and smart building controls throughout the building.
- Completed the installation of a 250-ton High Efficiency Magnetic Bearing Chiller at the SECU Arena. This chiller will reduce energy by taking advantage of part load efficiencies estimated to reduce total cooling costs in the arena by 15-20%.
- In 2025, TU will be completing a campus wide comprehensive Electrification/Decarbonization study as part of the 2025 Campus Master Plan. As part of this study, all fossil fuel equipment will be identified and recommendations for electric replacement will be made.
- All new construction and renovation projects are designed to U.S Green Building Council Leadership in Energy and Environmental Design (LEED) Silver Standards or higher. There are currently 14 LEED certified buildings on campus.

The above list are examples of Towson University's commitment to reducing energy consumption and greenhouse gases across campus. TU will continue to lead-by-example even during a period of rapid campus expansion and university wide budget challenges. TU will continue to drive this effort and will continue to take additional steps to meet the Governors Executive Order and to comply with the Maryland Climate Solutions Now Act of 2022.

VIII. Maryland Dept of Health (MDH)

Agency Energy Usage Snapshot:

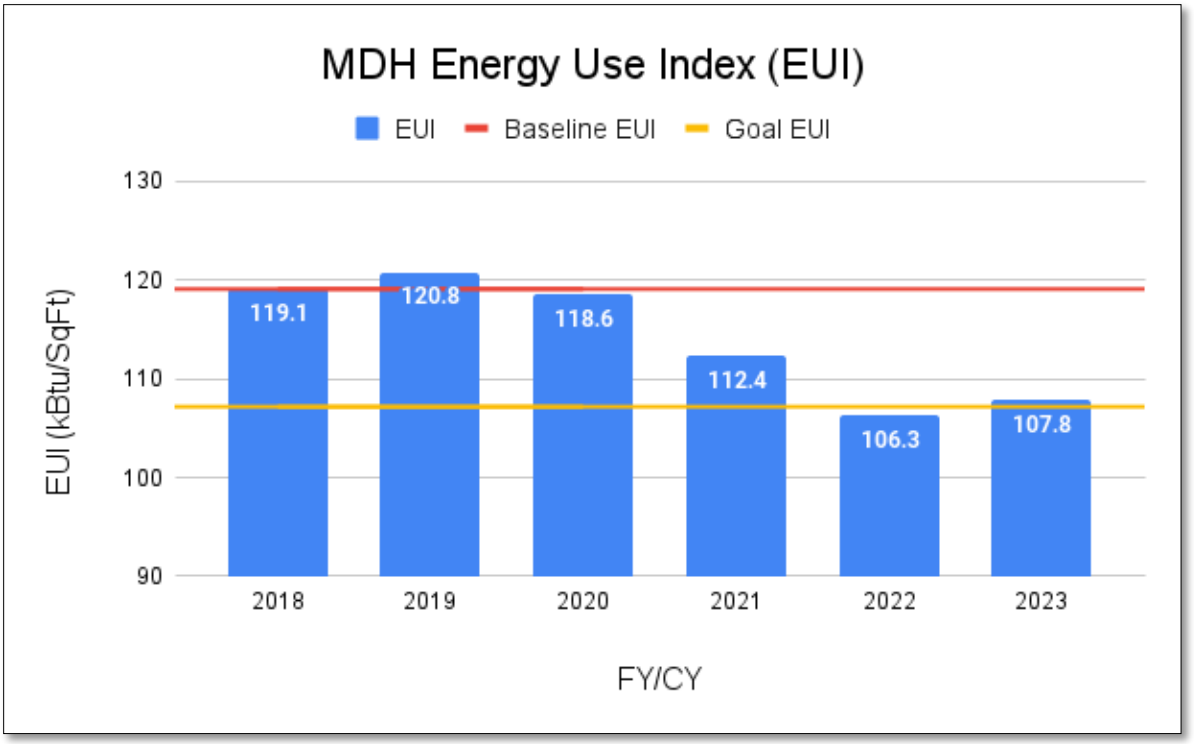
ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State	EUI (kBtu/SqFt)

				Total MMBTU	
FY18 (baseline)	3,208,181	382,122		3.97%	119.1
FY19	3,208,181	387,688	+1.5%	4.11%	120.8
FY20	3,208,181	380,601	-0.4%	4.33%	118.6
FY21	3,208,181	360,713	-5.6%	4.20%	112.4
CY22	3,208,101	340,917	-10.8%	4.05%	106.3
CY23	3,208,101	345,915	-9.5%	4.05%	107.8

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	2	$7,100
FY19	100%	31	$28,309
FY20	100%	0	$0.00
FY21	100%	13	$74,995
CY22	100%	4	$13,517
CY23	100%	0	$0

Change in Energy Use Index (EUI):



Agency report: No update.

IX. Morgan State University (MSU)

Agency Energy Usage Snapshot:

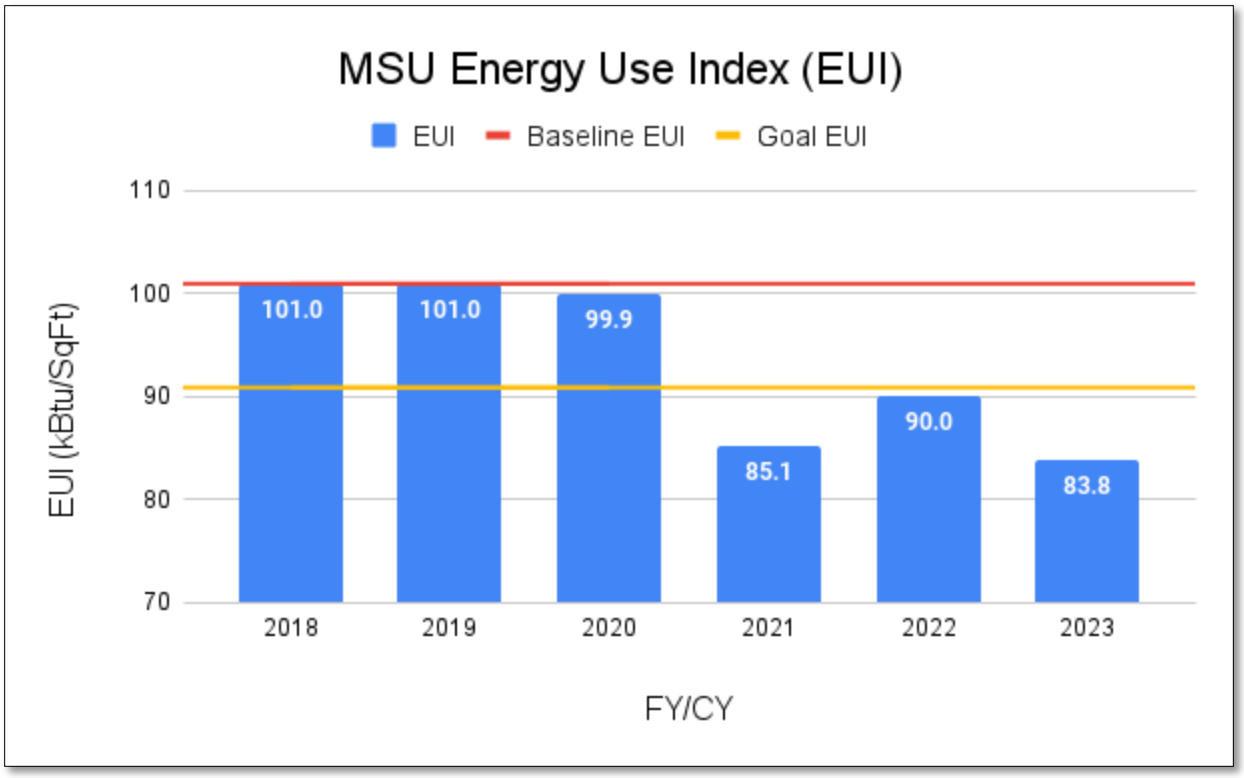
ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	3,396,043*	342,866		3.56%	101.0*
FY19	3,396,043*	342,913	+0.01%*	3.64%	101.0*
FY20	3,396,043	339,205	-1.1%	3.86%	99.9
FY21	3,396,043	288,972	-15.7%	3.36%	85.1
CY22	3,346,788	301,267	-10.8%	3.58%	90.0
CY23	3,280,875	274,886	-17.0%	3.22%	83.8

* Updated from FY 2018-2019 Annual Report

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	0	$0.00
FY19	100%	0	$0.00
FY20	100%	0	$0.00
FY21	100%	45	$410,580
CY22	100%	7	$23,755
CY23	100%	0	$0

Change in Energy Use Index (EUI):



Agency report: No update.

X. Maryland Transit Administration (MDOT-MTA)

Agency Energy Usage Snapshot:

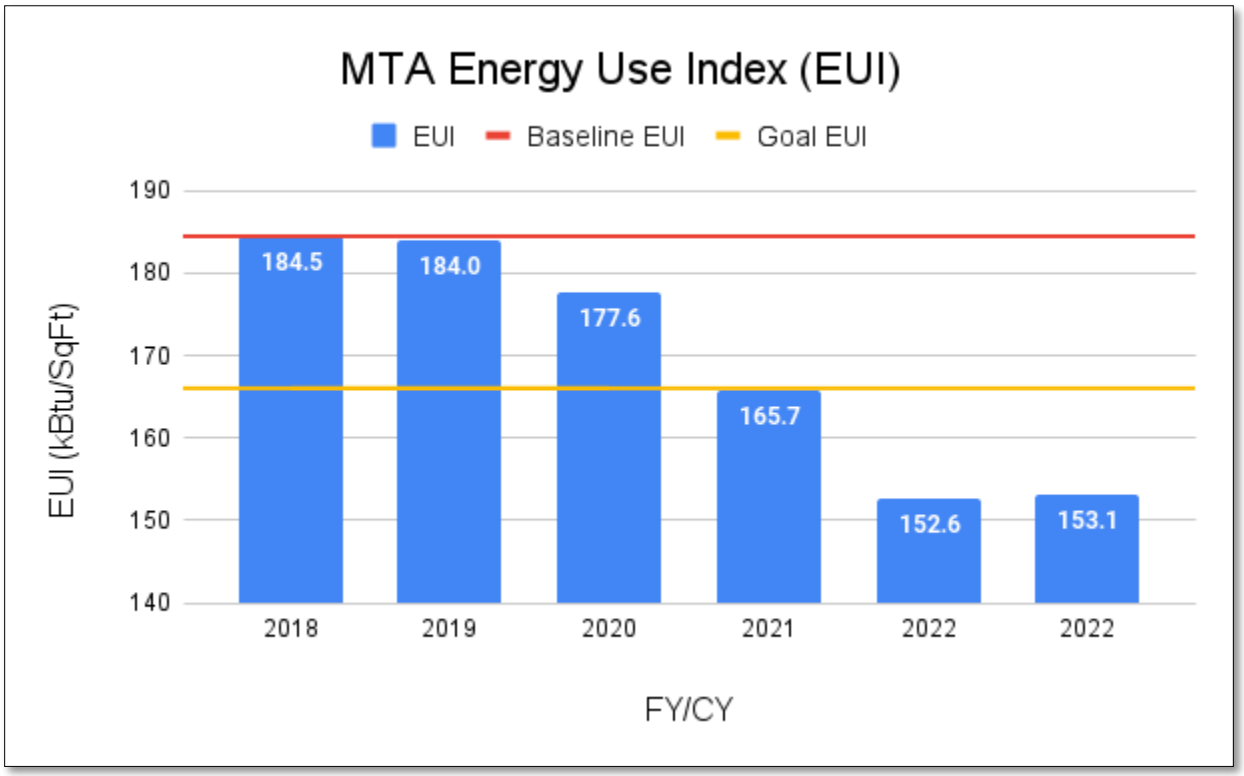
ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	1,835,833*	338,776*		3.54%	184.5*
FY19	1,835,833*	337,871*	-0.3%*	3.58%	184.0*
FY20	1,835,833*	326,016*	-3.8%*	3.76%	177.6*
FY21	1,835,833*	304,162*	-10.2%*	3.56%	165.7*
CY22	1,835,833*	280,090*	-17.3%*	3.32%	152.6*
CY23	1,835,833	281,098	-17.0%	3.29%	153.1

* Updated from FY 2018-2019 Annual Report

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	16	$86,663
FY19	100%	4	$18,927
FY20	100%	7	$26,551
FY21	100%	12	$46,029
CY22	100%	16	$86,308
CY23	100%	0	$0

Change in Energy Use Index (EUI):



Agency report: No update.

XI. Frostburg State University (FSU)

Agency Energy Usage Snapshot:

ENERGY USAGE

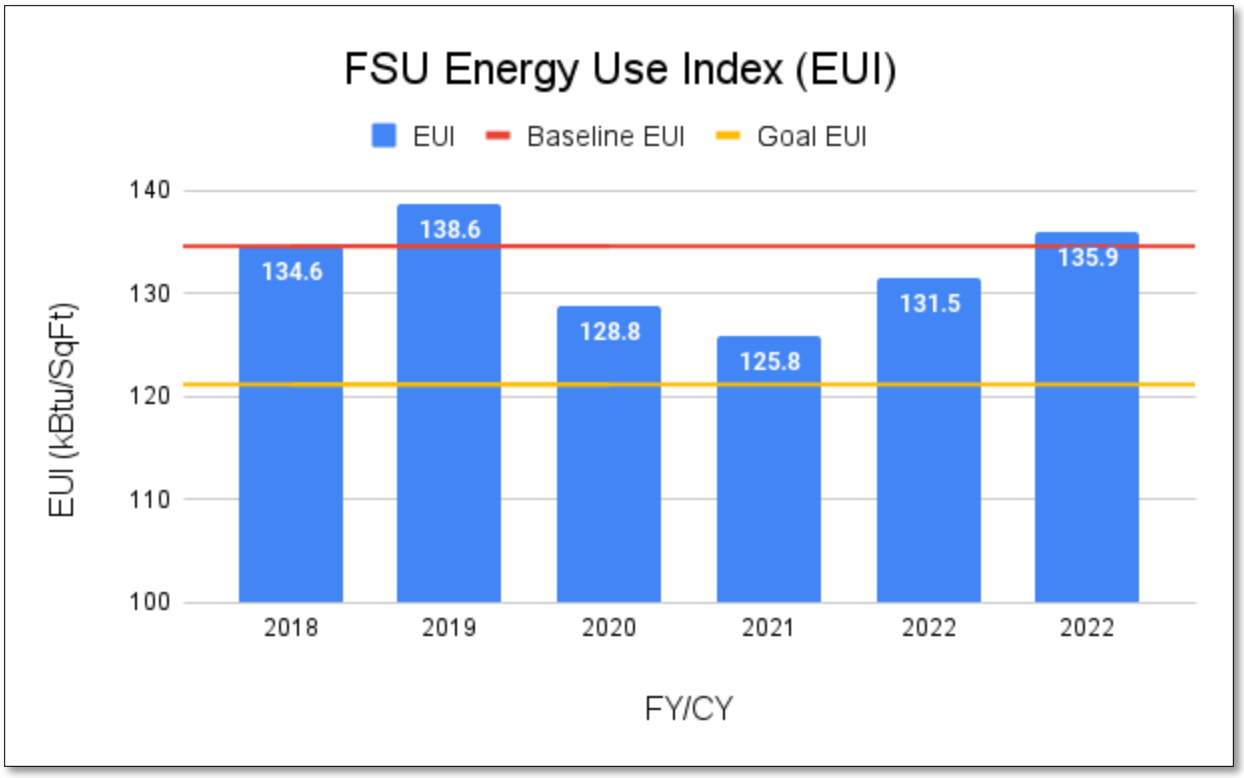
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	1,541,581*	207,429		2.15%	134.6*
FY19	1,541,581*	213,733*	+3.0%*	2.27%	138.6*
FY20	1,541,581*	198,559*	-4.3%*	2.26%	128.8*
FY21	1,538,831	193,619	-6.5%*	2.25%	125.8
CY22	1,538,831	202,404	-2.3%	2.40%	131.5
CY23	1,538,831	209,109	+1.0%	2.45%	135.9

* Updated from FY18-19 Annual Report

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	59	$5,065
FY19	100%	14	$9,225
FY20	100%	65	$82,932
FY21	100%	36	$19,166
CY22	100%	36	$64,864
CY23	100%	53	$105,715

Change in Energy Use Index (EUI):



Agency report: No update.

XII. Salisbury University

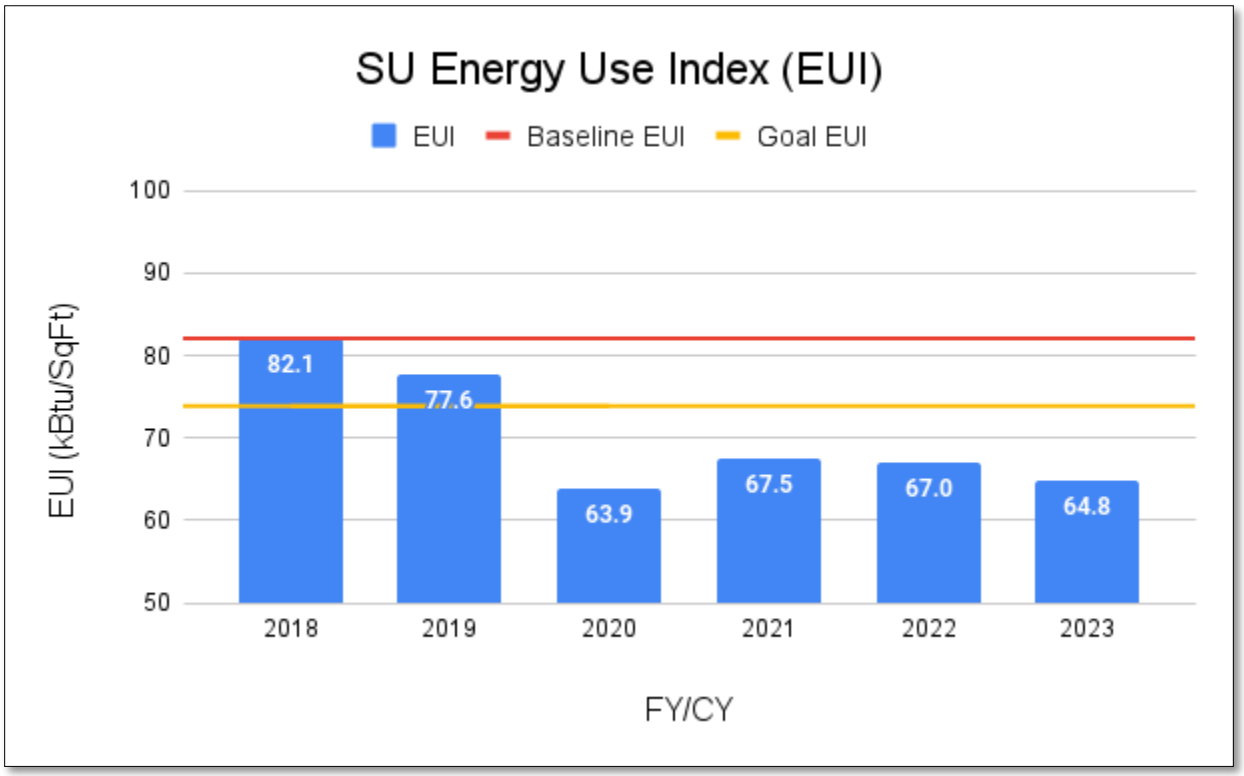
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	2,217,621	182,154		1.89%	82.1
FY19	2,217,621	172,156	-5.5%	1.83%	77.6
FY20	2,217,621	141,792	-22.1%	1.61%	63.9
FY21	2,217,621	149,700	-17.8%	1.74%	67.5
CY22	2,217,621	148,520	-18.4%	1.76%	67.0
CY23	2,216,446	143,634	-21.1%	1.68%	64.8

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	6	$1,314
FY19	100%	10	$1,978
FY20	100%	0	$0
FY21	100%	0	$0
CY22	100%	0	$0
CY23	100%	0	$0

Change in Energy Use Index (EUI):



Agency report: No update.

XIII. Maryland Stadium Authority

Agency Energy Usage Snapshot:

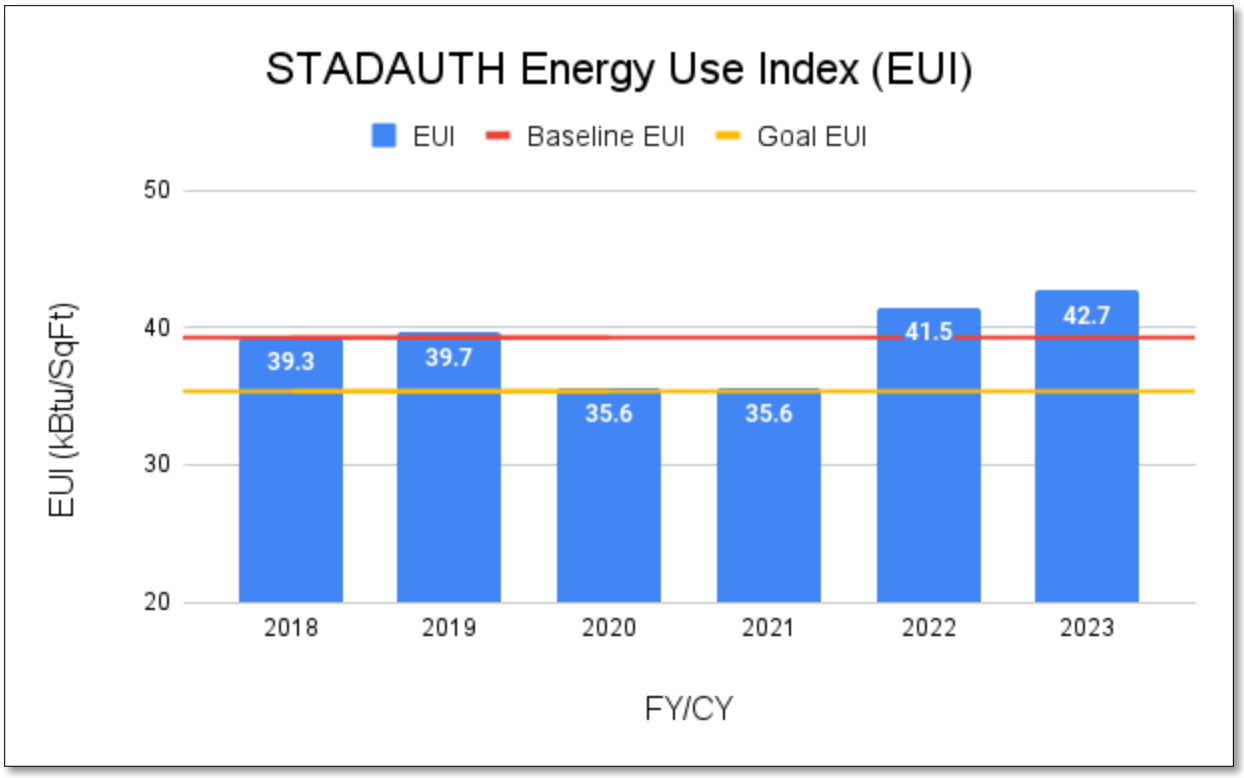
ENERGY USAGE

	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	4,274,000	168,040		1.75%	39.3
FY19	4,274,000	169,545	+0.9%	1.80%	39.7
FY20	4,274,000	152,337	-9.3%	1.73%	35.6
FY21	4,274,000	152,242	-9.4%	1.77%	35.6
CY22	4,274,000	177,219	+5.5%	2.11%	41.5
CY23	4,274,000	182,362	+8.6%	2.13%	42.7

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	0	$0
FY19	100%	0	$0
FY20	100%	0	$0
FY21	100%	0	$0
CY22	100%	0	$0
CY23	100%	0	$0

Change in Energy Use Index (EUI):



Agency report: No update.

XIV. University of Maryland Eastern Shore (UMES)

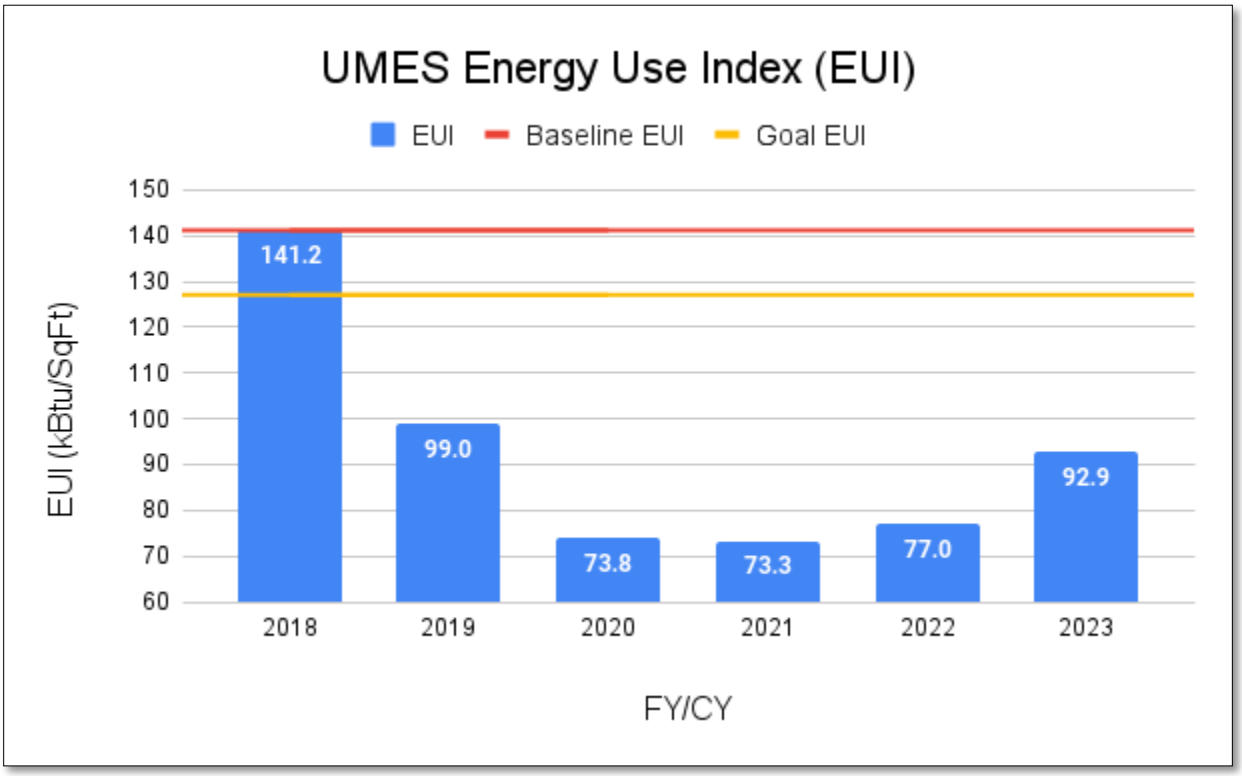
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	1,093,365	154,368		1.60%	141.2
FY19	1,093,365	108,220	-29.9%	1.15%	99.0
FY20	1,092,704	80,688	-47.7%	0.92%	73.8
FY21	1,092,704	80,098	-48.1%	0.93%	73.3
CY22	1,092,704	84,119	-45.5%	1.00%	77.0
CY23	1,092,074	101,469	-34.2%	1.19%	92.9

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	94%	2	$422
FY19	94%	4	$130
FY20	97%	1	$9
FY21	97%	25	$46,874
CY22	97%	0	$0
CY23	97%	0	$0

Change in Energy Use Index (EUI):



Agency report: No update.

XV. Bowie State University (BSU)

Agency Energy Usage Snapshot:

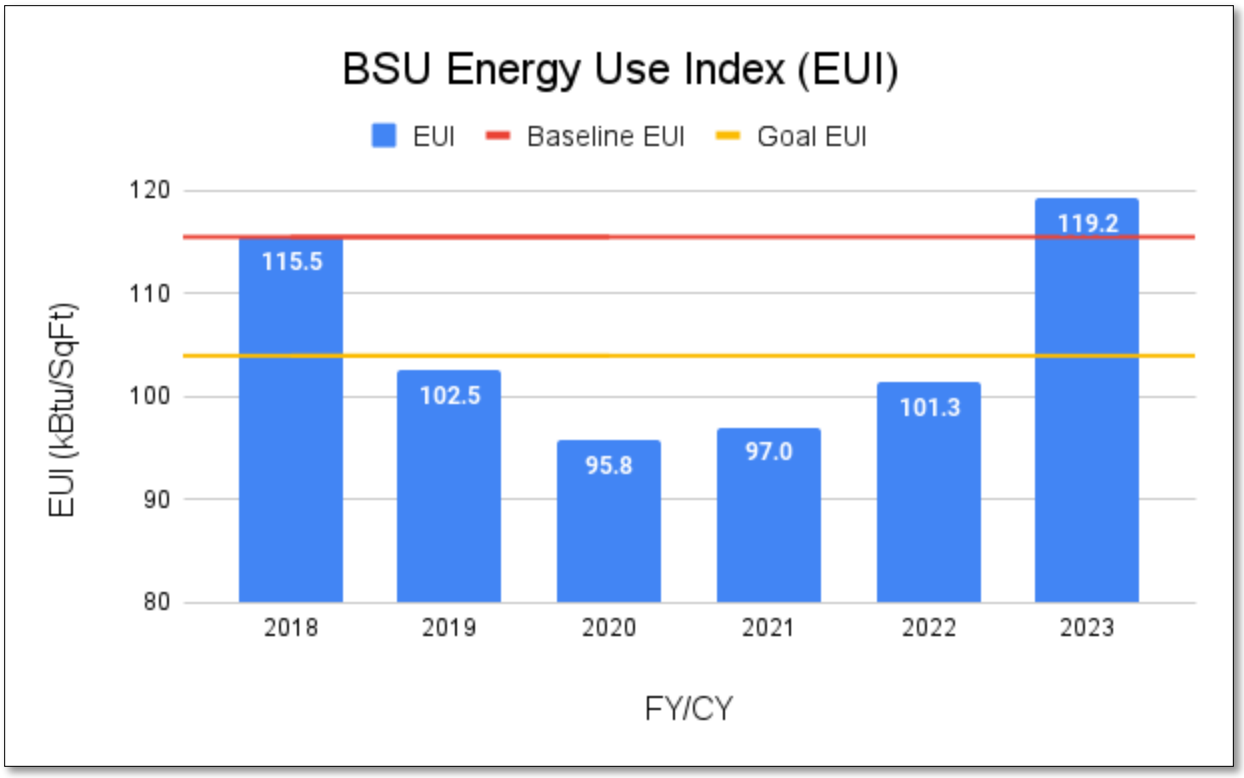
ENERGY USAGE

	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	1,332,563	153,917		1.60%	115.5
FY19	1,332,563	136,643	-11.2%	1.45%	102.5
FY20	1,332,563	127,641	-17.1%	1.45%	95.8
FY21	1,332,563	129,272	-16.0%	1.50%	97.0
CY22	1,332,563	135,011	-12.3%	1.60%	101.3
CY23	1,332,563	158,794	+3.2%	1.86%	119.2

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	9	$12,082
FY19	100%	0	$0
FY20	100%	0	$0
FY21	100%	6	$9,678
CY22	100%	49	$71,449
CY23	100%	40	$43,171

Change in Energy Use Index (EUI):



Agency report: No update.

XVI. State Highway Administration (MDOT-SHA)

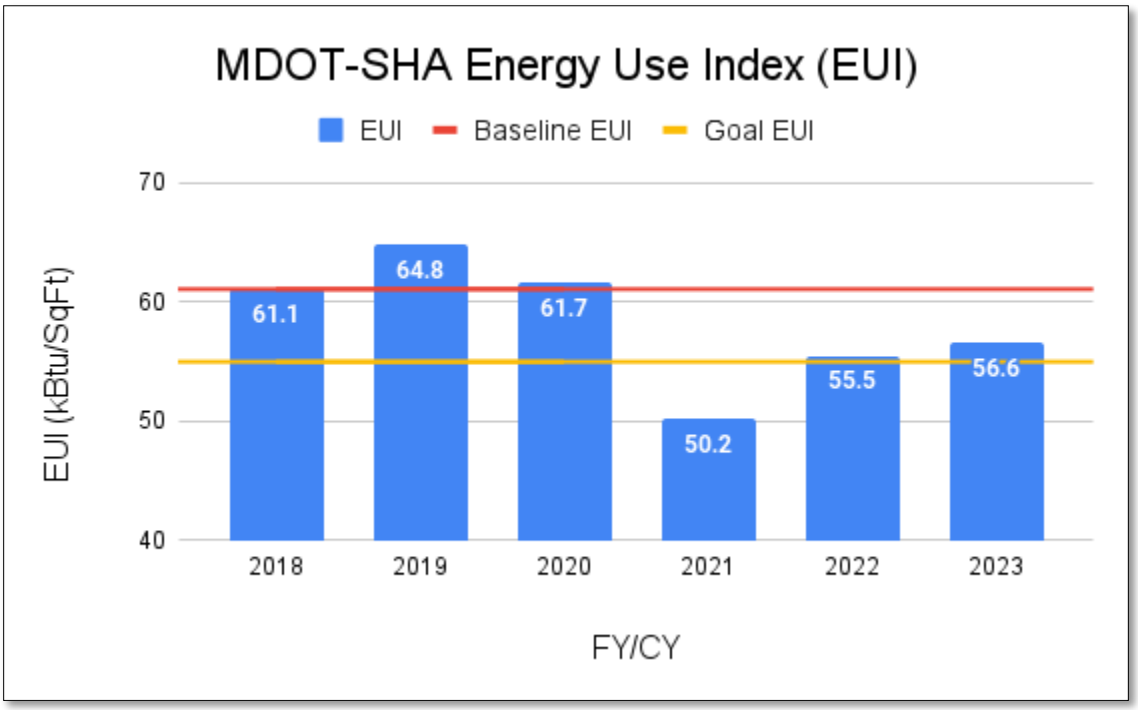
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	2,276,739	139,194		1.45%	61.1
FY19	2,276,739	147,567	+6.0%	1.56%	64.8
FY20	2,276,739	140,434	+1.0%	1.60%	61.7
FY21	2,276,739	114,378	-17.8%	1.33%	50.2
CY22	2,090,846	116,059	-9.2%	1.38%	55.5
CY23	2,055,048	116,265	-7.4%	1.36%	56.6

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	103	$75,155
FY19	100%	97	$73,090
FY20	100%	145	$69,613
FY21	100%	158	$97,078
CY22	100%	120	$43,754
CY23	100%	156	$88,627

Change in Energy Use Index (EUI):



Agency report:

SHA remains committed to Maryland's energy reduction goals and continues the administration of an energy performance contract executed in 2011. That contract was successful in realizing statewide energy savings for SHA as outlined in previous reports. We continue to pursue additional improvements and opportunities to further reduce energy use. SHA looks at all facility capital improvement projects through the lens of energy reduction during the planning and design phases, particularly HVAC, building envelope, and lighting projects.

As mentioned in last year's annual report, SHA completed two projects in FY 2024 that will reduce energy consumption, including fossil fuels: Churchville Maintenance Facility HVAC and Roof Replacement, and District 3 Office Roof Replacement.

The Churchville project will reduce energy usage through improved roof insulation (R19 to R30) and energy savings through use of a Variable Refrigerant Flow (VRF) HVAC system, known for its energy efficiency and energy recovery. SHA also improved Churchville maintenance facility's energy efficiency with new heating and ventilating units with energy recovery for the vehicle maintenance shop areas. Fossil fuel will still be required for the shop units (100% outside air), but with the improved roof insulation and more efficient equipment, the overall usage will decline. The roof replacement at the District 3 Office will also improve the insulation from R19 to R30.

SHA has also started the HVAC replacement project at the Glen Burnie Maintenance Facility where we will install a VRF system. Office lighting will also be replaced with LED fixtures as part of the project.

Beginning in the fall of 2023, SHA partnered with DGS to install EV charging stations for state owned light-fleet at SHA's Hanover and Headquarters Complexes as well as all seven (7) district offices. This project is fully funded and managed through DGS.

Additionally, SHA completed a lighting retrofit in FY 2024 at our Hanover Complex, converting a total of sixty-seven (67) site lights to LED while taking advantage of the EmPOWER MD BGE incentive program. Interior lighting in the vehicle maintenance bays at SHA's Hanover Complex were also converted to LED in FY24.

SHA continues to identify opportunities for re/retro-commissioning to reduce HVAC energy usage and extend the life of the equipment. We have contracts in place to allow for broader commissioning efforts, intended to target facilities with HVAC systems that are 40-70% through their expected service life. Commissioning and condition assessments have led SHA to complete various HVAC equipment replacements statewide in FY 2024. The newer equipment is more efficient and provides additional energy reductions. In FY 2024, SHA also completed smaller scale roof coating and roof replacement projects that added a reflective coating to reduces HVAC cooling energy use and extend the useful life of the roof.

SIGNAL AND HIGHWAY LIGHTING

In addition to efforts described above, work continues to convert all traffic signals to LED. This effort has been held up at approximately 95% completion due to the lack of funding. And although there is currently some movement, this endeavor is progressing slower than anticipated as funding issues continue to be the biggest challenge. Savings for this portion of the effort are difficult to calculate as changes to signal quantities have not been tracked. Signal quantities generally have increased with safety improvements such as additional signaled turn lanes and additional intersections being signalized. A basic intersection of 8 signal heads with incandescent bulbs would have theoretically used 25.92 kwh/day, and if these 8 signal heads were converted to LED they would theoretically use 8.06 kwh/day. Of course, any actual usage and savings varies greatly from intersection to intersection.

All new signals and highway/roadway lighting are constructed with LED lighting. SHA is currently converting all existing highway lighting to LED; as they are replaced due to accident or adjacent roadways undergoing major construction. Some of this lighting may be unmetered and savings will need to be addressed on a case by case basis.

XVII. Maryland Port Administration (MDOT-MPA)

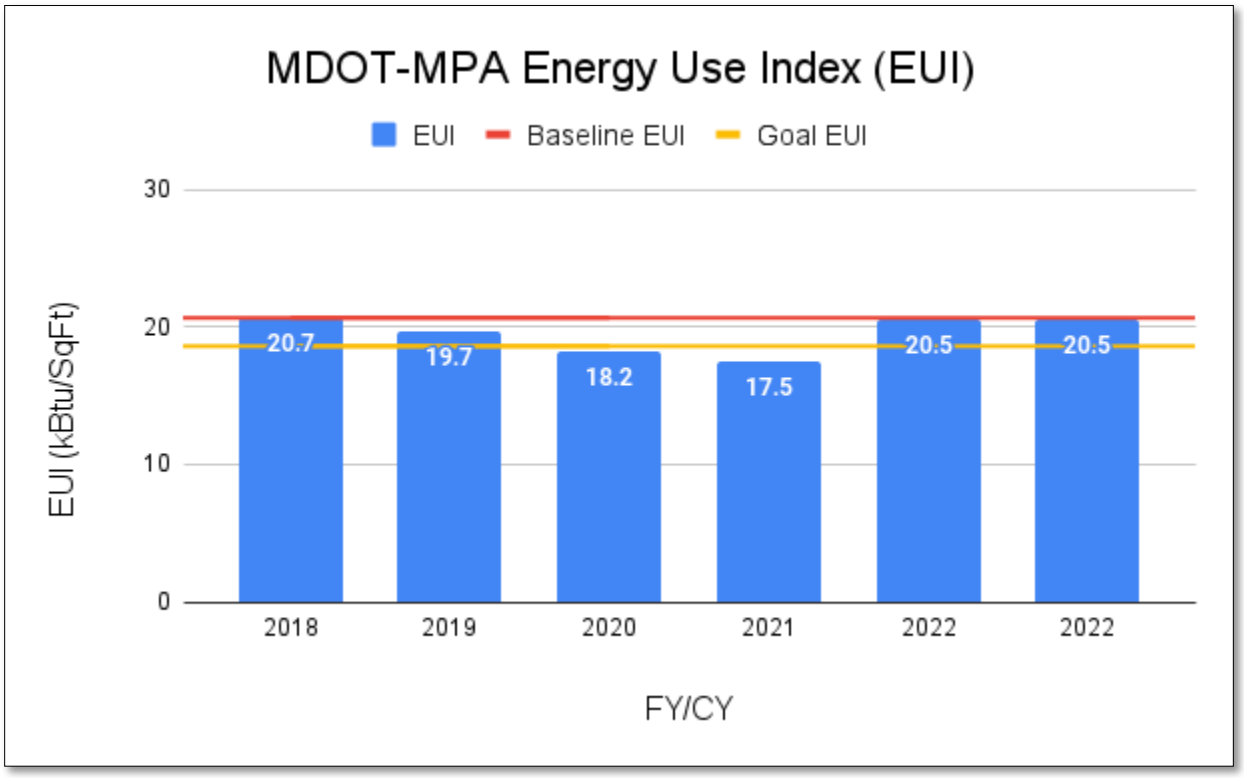
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	6,513,833	134,714		1.40%	20.7
FY19	6,513,833	128,266	-4.8%	1.36%	19.7
FY20	6,131,389	111,882	-12.1%	1.27%	18.2
FY21	6,131,389	107,317	-15.5%	1.25%	17.5
CY22	6,129,318	125,666	-1.0%	1.49%	20.5
CY23	6,129,318	125,671	-1.0%	1.47%	20.5

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	57%	0	$0
FY19	57%	15	$15,324
FY20	93%	0	$0
FY21	93%	6	$1,238
CY22	93%	9	$1,823
CY23	93%	0	$0

Change in Energy Use Index (EUI):



Note that due to a lack of complete data, the above numbers reflect the entire agency's energy usage and square footage, which may include leased facilities and non-building energy usage.

Agency report: No update.

XVIII. Coppin State University (CSU)

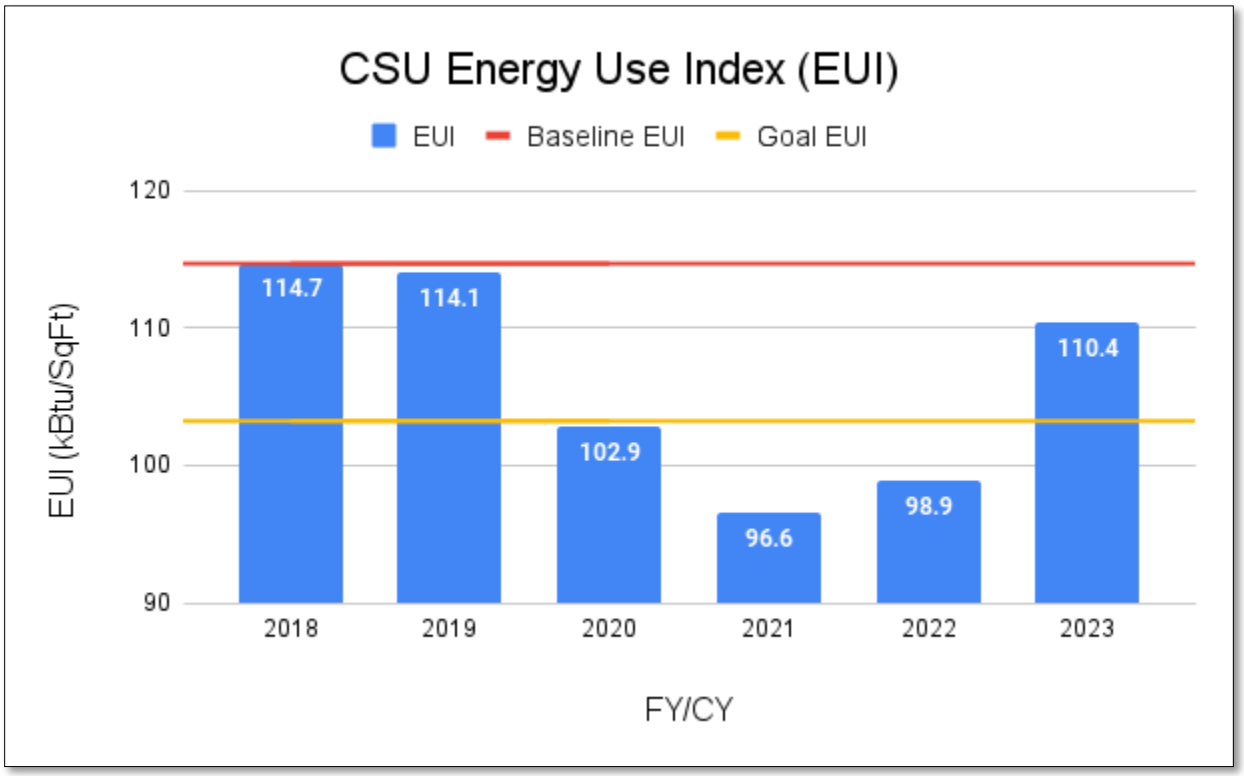
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	1,096,489	125,809		1.31%	114.7
FY19	1,096,489	125,123	-0.5%	1.33%	114.1
FY20	1,096,489	112,784	-10.3%	1.28%	102.9
FY21	1,096,489	105,927	-15.8%	1.23%	96.6
CY22	1,096,489	108,409	-13.8%	1.29%	98.9
CY23	1,096,489	121,088	-3.7%	1.42%	110.4

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	0	$0
FY19	100%	0	$0
FY20	100%	1	$23,465
FY21	100%	0	$0
CY22	100%	4	$30,381
CY23	100%	10	$74,652

Change in Energy Use Index (EUI):



Agency report: No update.

XIX. Maryland Transportation Authority (MDOT-MDTA)

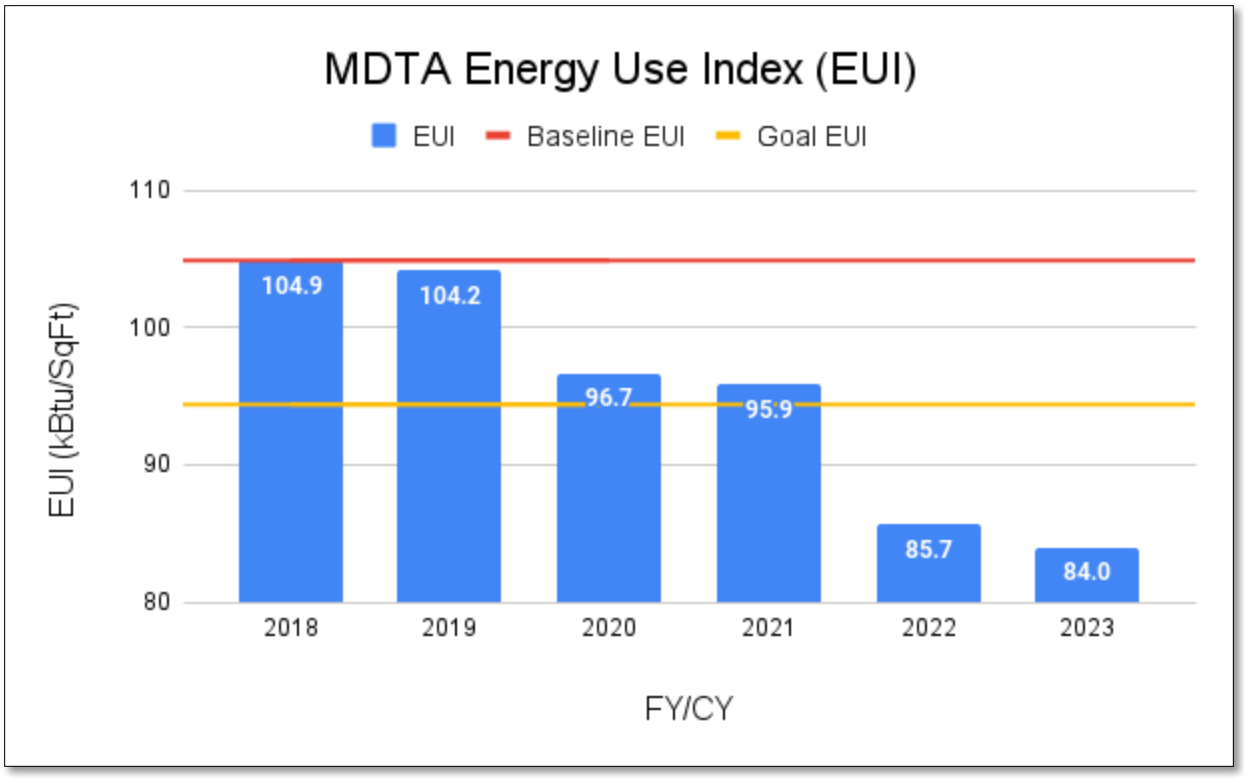
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	1,082,817	113,602		1.18%	104.9
FY19	1,082,817	112,840	-0.7%	1.20%	104.2
FY20	1,079,790	104,379	-7.8%	1.19%	96.7
FY21	1,079,790	103,602	-8.6%	1.21%	95.9
CY22	1,079,790	92,487	-18.3%	1.10%	85.7
CY23	1,076,498	90,398	-19.9%	1.06%	84.0

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	20	$4,127
FY19	100%	20	$12,646
FY20	100%	28	$13,173
FY21	100%	43	$6,336
CY22	100%	5	$9,689
CY23	100%	11	$9,645

Change in Energy Use Index (EUI):



Agency report:

Solar: MDTA is developing a feasibility study to determine the technical feasibility of installing solar panels at MDTA owned facilities. MDTA currently has two existing projects with planned solar panel installation, and the feasibility study will expand the range of sites available. MDTA plans to work with TSO to utilize an existing contract vehicle for packaging sites into a potential power purchase agreement with a developer.

ESG: MDTA is in the process of developing an Environmental, Social, Governance (ESG) Plan to focus the agency on climate risk management; financial opportunity and ratings; regulation and public policy; financial reporting rules and standards; and organizational cohesion and stakeholder trust. The effort is being led by an internal ESG Working Group of cross-functional departments that brings together individuals responsible for legacy sustainability activities, those responsible for other ESG-related program areas, and those who focus on reporting. This will lead to an annual ESG report that will be published and posted on the MOTA website.

MDTA Fleet Electrification Program_(FY24)- MDTA has developed MOTA fleet Electrification strategy study report. Report includes strategy for the transition of MDTA's operational fleet vehicles to EV (Electric Vehicles), with the installation of required charging infrastructure. This approach will comply with the Climate Solutions Now Act (enacted under Article 11, Section 17(b) of the Maryland Constitution - Chapter 38) for adopting the measures for conversion of passenger cars and light-duty vehicles to be 100% emission-free

with ZEV (Zero Emission Vehicles) by 2031 and 2036 respectively. There are potential energy savings and reductions in greenhouse gas (GHG) emissions with this transition. The fleet replacement and charger installation are spread within a span of the next ten (10) years. MDTA has been working with Department of General Services in obtaining and utilizing the SEIF funds for charging infrastructure at FSK facility.

EVCs - MDTA _currently has Electric Vehicles Charging Stations (EVCS) for fleet use at Nice Bridge Maintenance Building, Point Breeze (PB) Admin Building and under design at FSK facility. Additionally, MDTA has EVCS for public use at both Baltimore Harbor Tunnel (BHT) and Fort McHenry Tunnel (FMT), Nice/Middleton Bridge (NMB) campus facilities.

BHT Tunnel Lighting Replacement (FY24) - MDTA is upgrading existing tunnel lighting within the Baltimore Harbor Tunnel (BHT) with energy-efficient Light-emitting Diode (LED) luminaires. New lighting will be monitored and controlled by intelligent lighting control system with automatic dimming capabilities for required nighttime and daytime luminance levels and thus further improve energy savings. The new system is anticipated to offer energy savings around $2M within ten (10) years. Project is under design and expected construction NTP in FY 2026.

BCST2 - The Chesapeake Bay Crossing Study: Tier 2 NEPA will include a Green House Gas and Climate Change Analysis as well as an assessment of sea level rise in the engineering analysis, environmental impact assessment, and comparison of alternatives. This will include an evaluation of opportunities to reduce risk and vulnerability to inundation.

Facilities Information
JFK:

The changing of the Toll Plaza to electronic tolling (ET) has reduced traffic accidents tremendously. This has resulted in a continued flow of traffic at normal speeds and thereby reducing the CO2 emissions from idling vehicles,

Many roadway lighting fixtures, typically high-pressure sodium, have been changed to Light-emitting Diode (LED) ones. This has greatly reduced the energy costs, and maintenance expenses due to the increased life of the LED fixtures compared to the high-pressure sodium **(HPS)** ones,

Facility lighting have also been converted to LED resulting in lower energy costs,

Mini-split air conditioning systems have been installed in some smaller buildings reducing the need for total operation when the entire system is not needed. This has resulted in lower operating costs and replacement costs of existing systems at a lower level,

Exploring the use of solar panels at some facilities.

FMT:

High Mast Lighting (HML) HPS types at the portals have been replaced in some areas with LED type fixtures. Some of the HML fixtures have as many as twelve (12) HPS fixtures that consume fifteen (15) amperes each of electricity compared to four (4) LED ones that consume 0.5 amperes each,

Remaining HML fixtures are planned to be replaced in the coming year,

Most understructure roadway lighting will be replaced with LED in the coming months,

Going to ET has reduced accidents and maintained a smoother flow of traffic which reduces the negative impact of the carbon footprint.

BHT:

HML HPS types have been replaced over the past few years with LED types at the portal areas,
LED fixtures are replacing other less energy efficient lighting at the facilities,

Going to ET has naturally reduced the carbon footprint and had a positive impact on traffic movement.

FSK:

HML HPS types have been replaced by LED,

ET also has had a positive impact on this location.

Point Breeze:

Future plans will have all the exterior lighting changed from various types to LED lighting,

Some interior window tinting has been accomplished in past years in the. Headquarters building 2310. This has resulted in less light penetration through windows and less heat gain into the building thereby conserving energy. Additional window tinting may be planned for next year.

WPL:

ET has also had a positive impact at this location for the same reasons as the other locations,

Some roadway HML lighting has been converted to LED. The remainder of the will be completed in the coming year,

Some of the concrete areas near the Toll Plaza have been converted to the location of three hundred (300) trees being planted. Also, wildflowers have been added to aid in the process,

Automated gates have been installed to better control the flow of traffic and reduce accidents at the bridge shore areas. These automated gates can be safely operated remotely from the Authority Operations Canter (AOC) where traffic movement is constantly monitored by cameras. The automated gates have had a positive impact on maintaining the safe and efficient traffic flow on a very heavy traveled bride.

ICC:

A total of two hundred and twenty-four (224) HML lighting fixtures were replaced over the past year on the roadway. It is estimated that 165,112 kilowatt hours of electricity will be saved over a one (1) year period at about a cost of $29, 868.00.

A battery powered landscape blower will be tested in the coming year and a few of them may be budgeted for FY 26,

Some remaining existing sign bridge lighting will be converted to LED in the coming year. This will bring all our sign lighting to be the LED type,

Next calendar year we may be testing a battery powered zero turn mower.

NICE BRIDGE:

A new administration facility has been opened in the past months and is an energy efficient one.

GENERAL:

Our building automation system (BAS) is in the process of having the software upgraded. The upgrade will allow for maximum controlling of the HVAC in the buildings. This maximum control will not only allow for better handling of inside temperatures, but also controlling the on/off times of the unoccupied modes and save energy,

XX. Military Department

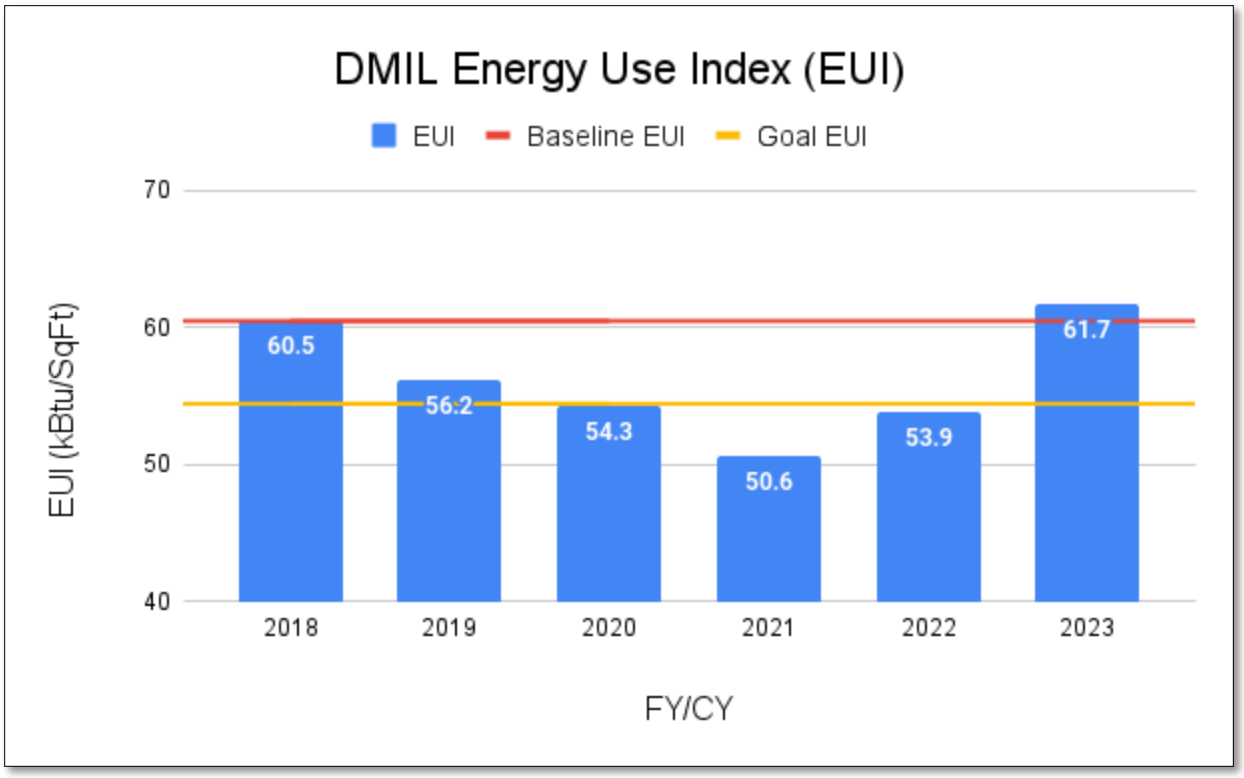
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	1,607,302	97,215		1.01%	60.5
FY19	1,607,302	90,388	-7.0%	0.96%	56.2
FY20	1,607,302	87,284	-10.2%	0.99%	54.3
FY21	1,494,136	75,654	-16.4%	0.88%	50.6
CY22	1,457,487	78,512	-11.0%	0.93%	53.9
CY23	1,304,757	80,558	+2.1%	0.94%	61.7

Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est $ Value of Missing Bills
FY18	100%	10	$9,872
FY19	100%	6	$2,956
FY20	100%	0	$0
FY21	100%	41	$9,283
CY22	100%	19	$16,782
CY23	100%	41	$24,168

Change in Energy Use Index (EUI):



Agency report:

MMD had a lot of activity this year with multiple EmPowerMD projects throughout the state. From our building list, a total of 6 buildings covering over 150,000 square feet received upgraded lighting - older technology, higher wattage fixtures were changed to LED, both for the interior and exterior. The responsible electricity suppliers included BGE, FirstNet Corp., and DelMarva.

The typical high wattage drops and daily double digit operating hours of exterior lights were large contributors to our savings. The number of pole fixtures varied widely from none at Glen Burnie Readiness Center (RC) to 32 poles at the Hagerstown site.

Across our representative buildings, there was close to a 10% reduction in electricity compared to CY 2022. All of this cannot be attributed to the new fixtures, however, it's a large component. Projects are continuing, as many of our buildings have pending lighting upgrades. Currently, LED projects are in progress at Fifth Regiment Armory and Patuxent River RC; LaPlata RC will be starting in September 2024.

In other areas, whereas 2022 was minimal in terms of actual equipment replacement, there were multiple projects developing equipment replacement scopes as well as an HVAC electrification design in progress for our Hagerstown site. That has led to 2023 having numerous sites getting newer, more efficient equipment that will be reflected next year.

APPENDICES

Appendix 1: Data Methodology

The Executive Order pertains to "State-owned buildings" and therefore a detailed scope of reporting is necessary to ensure that all required data points are included in our reporting. Because most of the State's buildings (nearly 80%) are on shared utility meters and do not have building-level submeters, it was necessary to establish a methodology for reporting on building-level data when we have it and at the broader campus of complex level if we do not. For the purposes of reporting, there are two distinct reporting groups that are outlined and defined further below: *Independently Metered Buildings*; and *Campuses*.

All data utilized in this report comes from the Statewide Utility Database, also known as the State Energy Database, a centralized resource of all State facilities and energy usage and cost that is maintained by the Department of General Services. The database tracks energy cost and consumption for all State agencies, including electricity, natural gas, fuel oil, steam, chilled water, water and sewer commodities. Over 1.8 Million State-paid utility invoices are included in the database.

SCOPE OF REPORTING

	Reporting Group	Reporting Level	Examples
	Independently Metered Buildings	Building level usage; Building level EUI	Courthouses Stand-alone office buildings Stand-alone warehouses
	Campuses	Campus-level usage; Campus-level EUI	University campuses Hospital campuses Office complexes

DEFINITIONS

Independently Metered Building: *A State-owned permanent built structure enclosed with exterior walls and a roof, that: (1) consumes energy, (2) has its own energy utility meter, and (3) does not share energy utility meters with any other building.*

Data per each Independently Metered Building:

Includes MMBTU for	• Building • Any attached parking lot or structure (only if on same utility meter as building)

	• Any attached outdoor lighting (only if on same utility meter as building)
Includes SQFT for	• Building GSF • Any attached structure (only if on same utility meter as building)

Campus: *A group of two or more State-owned buildings that consume energy and share at least one energy utility meter.*

Data per each Campus:

Includes MMBTU for	• Everything that consumes energy on that campus including: • Buildings • Outdoor lighting • Parking lots and structures
Includes SQFT for	• Buildings • Parking structures

Energy Utility Meters include: electric, natural gas, steam, chilled water, and fuel oil.

REPORTING METRICS

The primary reporting metric used in this report is **weather normalized EUI**, or Energy Use Intensity, which is energy usage per area in kBtu per square foot per year. All FY 2018 and FY 2019 total energy usage (reporting in MMBtu) is also weather normalized. The data is weather normalized to a baseline year of FY2018 using a common setpoint of 59°F.

With the exception of UMD, all energy used to power State buildings as reported in utility bills was converted to MMBtus from site-based energy. The large Combined Heat and Power (CHP) plant at the College Park campus made comparing their energy use against that of all other agencies a case of apples and oranges. Therefore, UMD and DGS agreed to report the electricity and steam produced by the plant as site-based energy, which facilitated a fair comparison between UMD's energy use, and the energy use of other units of State government.

EXCLUSIONS FROM EO REPORTING

Building data attributes such as area (in gross square feet) are reported by the agencies for inclusion in the database. Agencies that do not own buildings were excluded in this report.

The following energy consuming entities were excluded from the report:

- Traffic lights, streetlights, and other structures that do not meet the definitions of "Independently Metered Buildings" or "Campuses" established above
- Buildings that are not owned by the State as of FY 2018
- Buildings that were demolished prior to FY 2018

- New construction after FY 2018

Appendix 2: Energy Usage for All State Agencies, FY 2018 & CY 2022

Summary energy usage by all agencies, ranked by baseline year usage (FY 2018).

Rank	Agency	FY18 Sqft	FY18 Usage (MMBtu)	FY18 EUI (kBtu / Sqft)	CY23 Usage (MMBtu)	CY23 EUI (kBtu / Sqft)	% Change in Energy Usage
1	University of Maryland College Park (UMCP)*	14,767,416	1,798,702	121.8	1,540,263	104.3	-14.4%
2	Public Safety & Correctional Srvcs, Dept of (DPSCS)	12,828,571	1,312,002	102.3	1,173,606	91.5	-10.5%
3	University of Maryland Baltimore (UMB)	5,950,069	904,967	152.1	789,472	132.8	-12.7%
4	University of Maryland Baltimore County (UMBC)	4,467,954	580,472	129.9	562,580	125.9	-3.1%
5	General Services, Dept of (DGS)	6,498,791	575,501	88.6	474,935	73.4	-17.1%
6	Maryland Aviation Administration (MDOT-MAA)	2,920,577	567,330	194.3	570,903	196.0	0.9%
7	Towson University (TU)	6,036,906	463,915	76.9	397,460	64.9	-15.6%
8	Health, Maryland Dept of (MDH)	3,208,181	382,122	119.1	345,915	107.8	-9.5%
9	Morgan State University (MSU)	3,396,043	342,866	101.0	274,886	83.8	-17.0%
10	Maryland Transit Administration (MDOT-MTA)	1,835,833	338,776	184.5	281,098	153.1	-17.0%
11	Frostburg State University (FSU)	1,547,381	207,429	134.1	209,109	135.9	1.0%
12	Salisbury University (SU)	2,217,621	182,154	82.1	143,634	64.8	-21.1%
13	Stadium Authority, MD (STADAUTH)	4,274,000	168,040	39.3	182,362	42.7	8.6%
14	University of Maryland Eastern Shore (UMES)	1,093,365	154,368	141.2	101,469	92.9	-34.2%
15	Bowie State University (BSU)	1,332,563	153,917	115.5	158,794	119.2	3.2%
16	State Highway Administration (MDOT-SHA)	2,276,739	139,194	61.1	116,265	56.6	-7.4%
17	Maryland Port Administration (MDOT-MPA)***	6,513,833	134,714	20.7	125,671	20.5	-1.0%
18	Coppin State University (CSU)	1,096,489	125,809	114.7	121,088	110.4	-3.7%
19	Maryland Transportation Authority (MDTA)	1,082,817	113,602	104.9	90,398	84.0	-19.9%
20	Military Dept (DMIL)	1,607,302	97,215	60.5	80,558	61.7	2.1%
21	Saint Mary's College of MD (SMCM)	928,924	121,494	130.8	115,540	124.4	-4.9%
22	Juvenile Services, Dept of (DJS)	1,028,758	93,953	91.3	89,258	88.9	-2.6%
23	Police, Dept of MD State (DMSP)	600,622	87,359	145.4	81,814	136.2	-6.3%
24	University of Maryland Global Campus (UMGC)	1,005,624	82,637	82.2	58,649	58.3	-29.0%
25	Baltimore City Community College (BCCC)	736,165	77,446	105.2	67,501	123.5	17.4%
26	Motor Vehicle Administration (MDOT-MVA)	568,301	69,399	122.1	55,875	98.3	-19.5%
27	University of Baltimore (UB)	885,521	58,403	66.0	69,884	78.9	19.6%
28	University of Maryland Center for Environmental Science (UMCES)	349,510	58,298	166.8	42,093	120.4	-27.8%
29	Natural Resources, Dept of (DNR)***	1,173,946	52,957	45.1	51,235	43.6	-3.2%
30	Veterans Affairs, MD Dept of (MDVA)	358,048	36,401	101.7	27,484	76.8	-24.5%

31	University of MD Shady Grove (UMSG)	507,256	34,273	67.6	25,577	50.4	-25.4%
32	Maryland Public Television (MPT)	140,497	30,953	220.3	32,494	231.3	5.0%
33	Deaf, MD Schools for the	617,035	26,869	43.6	41,368	67.0	53.8%
34	Agriculture, MD Dept of (MDOA)	181,227	16,679	92.0	12,083	72.3	-21.4%
35	Human Resources, Dept of (DHR)	347,934	16,122	46.3	12,894	37.1	-20.0%
36	Planning, Dept of (MDP)	99,717	5,888	59.1	7,158	72.9	23.3%
37	Environmental Service, MD (MES)	69,913	5,374	76.9	3,756	53.7	-30.1%
38	Labor, Licensing and Regulation, Dept of (DLLR)	316,591	5,908	18.7	6,487	20.5	9.8%
39	Canal Place Preservation & Dev Authority (CPPDA)	29,994	1,839	61.3	356	12.3	-79.9%
40	Environment, MD Dept of the (MDE)	7,118	490	68.8	289	40.6	-41.0%
41	Food Center Authority, MD (MFCA)	63,600	329	5.2	373	5.9	12.8%
	TOTAL/AVERAGE	94,962,952	9,626,166	101.4	8,542,634	91.1	-10.1%

Notes:

*UMCP data is based on self-reported data from the agency.

**MPA data represents the entire Department's energy usage and square footage. Due to limited confirmed data, DGS was not able to confirm state owned buildings within the scope and proper meter assignments needed for reporting. Therefore, data is summed up for the entire agency, inclusive of non-buildings and leased facilities that would fall outside of the reporting scope.

***DNR data represents the entire Department's energy usage and square footage. Due to limited confirmed data, DGS was not able to confirm state owned buildings within the scope and proper meter assignments needed for reporting. Therefore, data is summed up for the entire agency, inclusive of non-buildings and leased facilities that would fall outside of the reporting scope.

Appendix 3: Top 20 Agencies – Independently Metered Buildings

The below table shows building-level energy usage and EUI for the top 20 energy using agencies for the baseline year of FY2018. Buildings included are those with building-level utility company meters.

Agency	Building Name (Independently Metered only)	Floor Area (Sqft.)	Building Primary Use	Year Built	FY18 Usage (MMBTU)	FY18 EUI (kBTU/ Sqft.)	CY23 Usage (MMBTU)	CY23 EUI (kBTU/Sq ft.)	% Change in Usage from FY18 to CY23
BSU	Goodloe Alumni House	3,815	College/University	1916	255	66.8	143	37.4	-43.9%
DGS	Hilton Height Community Center - 530 N Hilton	8,750	Office	1948	425	48.5	496	56.7	16.8%
DGS	Annapolis Post Office	22,994	Office	2017	839	36.5	1,845	80.2	119.9%

DGS	Hilton Height Community Center - 510 N Hilton	22,900	Other - Entertainment/Public Assembly	1948	1,383	60.4	1,516	66.2	9.6%
DGS	Hagerstown - J. Louis Boublitz DC/MSC	27,240	Courthouse	2000	1,430	52.5	1,665	61.1	16.5%
DGS	Denton - John Hargreaves DC/MSC	31,798	Courthouse	1998	1,788	56.2	2,071	65.1	15.8%
DGS	Essex/Rosedale DC/MSC	22,975	Courthouse	1982	2,100	91.4	2,079	90.5	-1.0%
DGS	Centreville - Carter Hickman DC/MSC	37,783	Courthouse	1982	2,772	73.4	4,156	110.0	49.9%
DGS	OPD - 201 St. Paul Street	32,000	Office	1900	2,783	87.0	2,631	82.2	-5.4%
DGS	Prince Frederick - Louis L. Goldstein DC/MSC	73,000	Courthouse	1991	3,669	50.3	4,900	67.1	33.5%
DGS	Westminster DC/MSC	43,000	Courthouse	2002	4,125	95.9	6,456	150.1	56.5%
DGS	Towson DC	52,000	Courthouse	1994	5,069	97.5	4,749	91.3	-6.3%
DGS	Ellicott City DC/MSC	75,300	Courthouse	1982	5,309	70.5	4,721	62.7	-11.1%
DGS	Hyattsville DC/MSC	82,000	Courthouse	1994	5,362	65.4	5,505	67.1	2.7%
DGS	Wabash - Borgerding DC/MSC	52,824	Courthouse	1986	5,409	102.4	5,081	96.2	-6.1%
DGS	Leonardtown - Joseph P. Carter DC/MSC	77,920	Courthouse	1994	5,661	72.7	4,157	53.3	-26.6%
DGS	Jessup State Complex	126,800	Office	1970	6,011	47.4	4,586	36.2	-23.7%
DGS	2100 Guilford - Parole & Probation	82,953	Prison/Incarceration	1924	6,012	72.5	2,161	26.1	-64.1%
DGS	South Baltimore - Hargrove DC/MSC	84,730	Courthouse	2003	6,721	79.3	8,537	100.8	27.0%
DGS	Elkton DC/MSC	126,700	Courthouse	1983	6,725	53.1	6,039	47.7	-10.2%
DGS	Glen Burnie - George M. Taylor DC/MSC	97,104	Courthouse	1982	6,948	71.6	7,098	73.1	2.2%
DGS	Silver Spring - L. Leonard Ruben DC	79,596	Courthouse	2004	7,273	91.4	6,999	87.9	-3.8%
DGS	Shillman Building	160,000	Courthouse	1972	9,564	59.8	3,306	20.7	-65.4%
DGS	Salisbury - Paul Martin DC/MSC	224,343	Courthouse	1990	10,182	45.4	11,473	51.1	12.7%
DGS	Bel Air - Mary Risteau DC/MSC	140,000	Courthouse	1983	11,604	82.9	10,993	78.5	-5.3%
DGS	Peoples Resource Center - 100 Community Place	155,900	Office	1991	12,237	78.5	10,254	65.8	-16.2%
DGS	Civic Plaza - 200 W BALTIMORE St	217,700	Office	1911	15,600	71.7	15,014	69.0	-3.8%
DGS	Rockville DC/MSC	167,000	Courthouse	2011	26,234	157.1	13,985	83.7	-46.7%

DGS	WilliamDonaldSchaefer-6 St. Paul	305,400	Office	1986	33,508	109.7	32,582	106.7	-2.8%
DMIL-ARMY	209 S STORAGE SHED	975	Storage	1976	2	2.2	2	2.1	-6.4%
DMIL-ARMY	WHITE OAK FMS	2,873	Storage	1972	44	15.2	39	13.6	-10.5%
DMIL-ARMY	113- GATEHOUSE BUILDING	64	Other	1990	63	980.9	62	968.8	-1.2%
DMIL-ARMY	W-3 WHSE BUILDING	6,156	Warehouse - Unrefrigerated	1924	64	10.4	46	7.5	-28.2%
DMIL-ARMY	BLD. 402 WELL PUMP	180	Pump House	1975	85	474.5	60	333.3	-29.7%
DMIL-ARMY	W-2 WHSE BUILDING	7,680	Warehouse - Unrefrigerated	1924	91	11.8	595	77.5	556.4%
DMIL-ARMY	201- BEECHAM BUILDING	5,095	Hospital	1999	130	25.5	90	17.7	-30.7%
DMIL-ARMY	P1- MAINT BUILDING	1,008	Shop	1991	207	205.5	590	585.3	184.8%
DMIL-ARMY	SEC 16 - EST 2000	512	Office	1975	211	412.6	176	343.8	-16.7%
DMIL-ARMY	S-3 MAINT BUILDING	2,356	Repair Services	1924	257	109.2	196	83.2	-23.8%
DMIL-ARMY	Catonsville Armory	29,127	Office	1957	338	11.6	105	3.6	-68.9%
DMIL-ARMY	DUNDALK OLD FMS	3,739	Shop	1960	356	95.3	392	104.8	10.1%
DMIL-ARMY	DUNDALK NEW FMS	19,230	Shop	2008	535	27.8	444	23.1	-17.0%
DMIL-ARMY	S-5 MAINT BUILDING	2,337	Repair Services	1924	537	230.0	561	240.1	4.4%
DMIL-ARMY	USP&FO Warehouse	1,440	Warehouse - Unrefrigerated	2007	638	443.0	710	493.1	11.3%
DMIL-ARMY	GLEN BURNIE ARMORY	23,179	Office	1950	662	28.6	974	42.0	47.1%
DMIL-ARMY	W-8 WHSE BUILDING	9,600	Warehouse - Unrefrigerated	1924	742	77.3	956	99.6	28.8%
DMIL-ARMY	SALISBURY FMS	11,432	Shop	2004	836	73.1	981	85.8	17.4%
DMIL-ARMY	S-2 MAINT BUILDING	19,844	Shop	1924	985	49.7	1,032	52.0	4.7%
DMIL-ARMY	HAGERSTOWN ARMORY	30,306	Office	1978	998	32.9	1,413	46.6	41.6%
DMIL-ARMY	LAPLATA ARMORY	23,230	Office	2016	1,087	46.8	762	32.8	-29.9%

DMIL-ARMY	FREDERICK ARMORY	18,630	Office	1978	1,240	66.5	985	52.9	-20.6%
DMIL-ARMY	SALISBURY ARMORY	33,070	Office	1959	1,460	44.1	1,363	41.2	-6.6%
DMIL-ARMY	WESTMINSTER ARMORY	17,229	Office	1980	1,527	88.6	1,183	68.7	-22.5%
DMIL-ARMY	O-2 ADMIN BUILDING	16,108	Office	1948	1,562	97.0	1,717	106.6	9.9%
DMIL-ARMY	ANNAPOLIS ARMORY	41,473	Office	1959	1,700	41.0	1,706	41.1	0.4%
DMIL-ARMY	WHITE OAK ARMORY	27,078	Office	1972	1,736	64.1	1,590	58.7	-8.4%
DMIL-ARMY	CADE ARMORY	35,369	Office	1960	2,023	57.2	1,391	39.3	-31.2%
DMIL-ARMY	GUNPOWDER-PURNELL ARMORY	31,969	Office	1975	2,201	68.9	2,816	88.1	27.9%
DMIL-ARMY	CUMBERLAND ARMORY	26,332	Office	1960	2,355	89.4	1,012	38.4	-57.0%
DMIL-ARMY	PARKVILLE ARMORY	39,279	Office	1964	2,358	60.0	1,951	49.7	-17.3%
DMIL-ARMY	Dundalk Armory	31,022	Fitness Center/Health Club/Gym	1960	3,271	105.4	4,072	131.3	24.5%
DMIL-ARMY	RUHL ARMORY-TOWSON	71,699	Office	1980	3,909	54.5	3,043	42.4	-22.1%
DMIL-ARMY	114- ARMORY BUILDING	63,481	Office	1990	7,839	123.5	7,491	118.0	-4.4%
DMIL-ARMY	FIFTH REGIMENT ARMORY	322,434	Office	1901	19,418	60.2	15,041	46.6	-22.5%
FSU	Intramural Field Restroom	720	Restroom	2012	8	11.7	7	9.7	-17.1%
FSU	WFWM RADIO STATION	100	Office	2015	76	764.6	93	930.0	21.6%
FSU	20 BRADDOCK	1,913	Office	1955	125	65.1	85	44.4	-31.8%
FSU	MIDLOTHIAN ROAD	27,520	Irrigation	2012	1,041	37.8	754	27.4	-27.6%
MAA	801 WILSON-POINT RD	28,404	Hangar	1980	30	1.1	10	0.4	-67.2%
MAA	801 WILSON-POINT RD	68,803	Hangar	1980	35	0.5	22	0.3	-37.2%
MAA	Building 120	2,185	Office	1980	74	34.0	104	47.6	40.1%
MAA	3000 Mathison Way	60,000	Office	1990	79	1.3	84	1.4	5.7%
MAA	Building 117	8,844	Storage	1980	202	22.8	171	19.3	-15.2%
MAA	Building 137	3,880	Shop	1980	207	53.3	169	43.6	-18.2%
MAA	R 7023 Elm Rd Bldg 123, Bay A	1,500	Shop	1980	225	150.2	231	154.0	2.5%
MAA	Building 113	28,400	Storage	1980	236	8.3	270	9.5	14.4%

MAA	Building 158	5,100	Maintenance Shop	1980	358	70.1	305	59.8	-14.7%
MAA	Building 119	3,840	Storage	1980	394	102.7	434	113.0	10.0%
MAA	701 Wilson Point Rd Hangar	12,345	Hangar	2000	933	75.6	906	73.4	-2.9%
MAA	Building 121	8,200	Shop	1980	996	121.5	932	113.7	-6.5%
MAA	701 WILSON-POINT RD	9,181	Hangar	1980	1,049	114.3	515	56.1	-50.9%
MAA	701 Wilson-Point Road - Hangar 6	61,100	Hangar	1980	1,150	18.8	986	16.1	-14.2%
MAA	601 WILSON-POINT RD	74,200	Hangar	1980	1,342	18.1	1,984	26.7	47.8%
MAA	7057 Elm Rd Bldg 112	45,000	Office	1980	1,454	32.3	784	17.4	-46.1%
MAA	701 Wilson-Point Road - Hangar 4	61,800	Hangar	1980	1,568	25.4	905	14.6	-42.3%
MAA	Building 155	9,504	Office	1980	2,555	268.8	2,748	289.1	7.6%
MAA	Building 105	35,000	Fire station	1980	3,773	107.8	4,020	114.9	6.5%
MAA	601 WILSON-POINT RD	19,800	Hangar	1980	4,057	204.9	2,399	121.2	-40.9%
MAA	Building 107	28,000	Storage	1980	4,874	174.1	6,273	224.0	28.7%
MAA	MAC Building 172	172,000	Office	1980	9,527	55.4	9,450	54.9	-0.8%
MAA	701 WILSON-POINT RD (Central)	12,900	Hangar	1980	12,586	975.7	12,961	1,004.7	3.0%
MAA	Building 116 FMX Shop	10,200	Shop	1995	17,979	1762.6	9,130	895.1	-49.2%
MAA	100 Building - BWI Airport	2,129,891	Hangar	1947	501,342	235.4	513,151	240.9	2.4%
MDH	Garage	1,400	Repair Services	1996	143	102.2	160	114.3	11.8%
MDH	Employee Dorms	12,092	Residential Care Facility	1958	969	80.2	595	49.2	-38.6%
MDH	Gym	8,305	Gym/Stadium	1986	1,200	144.5	1,349	162.4	12.4%
MDH	Office of Chief Medical Examiner	120,000	Laboratory	2010	17,153	142.9	21,609	180.1	26.0%
MDH	MDH Eastern Shore Hospital Center	108,000	Residential Care Facility	2001	22,896	212.0	20,749	192.1	-9.4%
MDTA	Western Shore Storage Building	2,240	Storage	1905	22	9.6	52	23.2	140.7%
MDTA	Maintenance Building 2	5,234	Office	2019	308	58.8	394	75.3	28.0%
MDTA	7677 LILLIAN HOLT DRIVE	14,406	Office	-	313	21.7	314	21.8	0.3%
MDTA	OPS Building (2340)	5,736	Office	1905	345	60.1	346	60.3	0.3%
MDTA	Eastern Shore Storage Building	1,920	Storage	1905	472	245.8	1,313	683.9	178.2%
MDTA	2330 BROENING HWY	14,015	Office	1905	795	56.7	2,106	150.3	165.0%
MDTA	Police & Automotive Building	38,860	Mixed Use Property	1905	2,017	51.9	2,009	51.7	-0.4%

MDTA	Headquarters Building (2310)	62,141	Office	1905	4,016	64.6	3,251	52.3	-19.0%
MDTA	303 AUTHORITY DR	25,800	Office	-	6,020	233.3	3,758	145.7	-37.6%
MDTA	Administration Building (1200 Frankfurst Ave)	32,253	Office	1956	8,641	267.9	8,740	271.0	1.1%
MDTA	1700 FRANKFURST AVENUE	7,149	Office	-	15,255	2133.9	14,151	1,979.4	-7.2%
MSU	1140 E COLD-SPRING LA	10,269	Storage	1950	26	2.5	488	47.5	1812.5%
MSU	2412 President's Residence	4,270	Residence	1963	193	45.2	41	9.6	-78.7%
MSU	Lillie Carroll Jackson Museum	5,600	Museum	1900	306	54.7	366	65.4	19.5%
MSU	Morgan Christian Center	3,883	Office	1942	379	97.7	1,245	320.6	228.1%
MSU	Estuarine Center (off site)	28,000	Office	1995	1,164	41.6	1,717	61.3	47.5%
MSU	4530 Portage Ave	40,856	Office	1983	1,490	36.5	1,667	40.8	11.9%
MSU	Business School	138,000	Office	2016	18,403	133.4	9,109	66.0	-50.5%
MSU	Behavioral & Social Science Center (BSSC)	140,000	Office	1980	24,248	173.2	17,525	125.2	-27.7%
MTA	Laurel Station	800	Transportation Terminal/Station	1984	296	370.2	221	276.3	-25.4%
MTA	Bush Bus Division	25,000	Storage	-	594	23.8	492	19.7	-17.2%
MTA	Light Rail Stations Cherry Hill	40,000	Storage	1960	751	18.8	433	10.8	-42.4%
MTA	Light Rail Stations Cherry Hill	10,000	-	-	960	96.0	128	12.8	-86.7%
MTA	Eastern Bus Division Trans Bldg	13,913	Shop	1950	979	70.4	885	63.6	-9.6%
MTA	MTA Police Mt. Hope DR	90,000	Police Station	2011	3,112	34.6	2,834	31.5	-8.9%
MTA	Procurement	34,506	Office	2000	3,150	91.3	3,834	111.1	21.7%
MTA	Kirk Bus Division	46,239	Shop	2016	11,562	250	5,397	116.7	-53.3%
MTA	METRO Maintenance Old Court	40,000	Shop	1979	5,569	139.2	4,911	122.8	-11.8%
MTA	Cromwell Light Rail Maintenance	56,279	Shop	2000	8,342	148.2	8,408	149.4	0.8%
MTA	MARC Maintenance Facilities Martins	55,000	Maintenance Shop	2006	9,772	177.7	7,390	134.4	-24.4%
MTA	Light Rail Maintenance North Ave	107,000	Shop	1991	14,807	138.4	14,939	139.6	0.9%
MTA	Northwest Bus Division	264,905	Shop	1974	17,426	65.8	16,078	60.7	-7.7%
MTA	5801 WABASH AVE	130,000	Shop	1981	26,020	200.2	29,523	227.1	13.5%

MTA	Metro Stations Johns Hopkins	300,000	Transportation Terminal/Station	1992	178,662	595.5	141,318	471.1	-20.9%
SHA	Shop - Salisbury Old District Office	1,789	Shop	1984	125	69.8	116	64.8	-7.1%
SHA	Highway Communications Division	5,485	Shop	-	671	122.3	718	130.9	7.0%
SHA	Shop - Denton	34,648	Shop	1984	696	20.1	682	19.7	-2.0%
SHA	Shop - Snow Hill	35,375	Shop	1958	699	19.8	57	1.6	-91.8%
SHA	Shop - Cambridge	63,988	Shop	1963	752	11.8	1,031	16.1	37.1%
SHA	Shop - Leonardtown	45,891	Shop	1975	1,051	22.9	771	16.8	-26.6%
SHA	Shop - Princess Anne	36,074	Shop	1960	1,191	33.0	1,311	36.3	10.1%
SHA	District Office/Shop - Chestertown	54,302	Office	-	1,224	22.5	3,346	61.6	173.4%
SHA	Shop - Prince Frederick	32,077	Shop	1968	1,251	39.0	1,373	42.8	9.7%
SHA	Shop - Easton	31,100	Shop	1952	1,290	41.5	1,807	58.1	40.1%
SHA	District Office - LaVale	18,406	Office	-	1,569	85.3	204	11.1	-87.0%
SHA	Shop - Centerville	44,192	Shop	1963	1,598	36.2	2,281	51.6	42.8%
SHA	Shop - Gaithersburg	48,273	Shop	1994	1,736	36.0	2,059	42.7	18.6%
SHA	Shop - Dayton	48,527	Shop	2003	1,907	39.3	1,971	40.6	3.3%
SHA	Shop - Laurel	42,987	Shop	1987	2,085	48.5	2,960	68.9	42.0%
SHA	Shop - Lavale	48,582	Shop	-	2,190	45.1	587	12.1	-73.2%
SHA	Shop - Fairlands	45,323	Shop	1998	2,260	49.9	1,835	40.5	-18.8%
SHA	Shop - Hagerstown	53,639	Shop	1986	2,276	42.4	1,929	36.0	-15.3%
SHA	District Office-PG	41,967	Office	-	2,425	57.8	2,805	66.8	15.7%
SHA	Shop - Upper Marlboro	52,763	Shop	1998	2,559	48.5	1,112	21.1	-56.5%
SHA	Shop - Churchville	45,103	Shop	2000	2,628	58.3	1,740	38.6	-33.8%
SHA	Shop - Elkton	50,890	Shop	1987	2,799	55.0	1,219	24.0	-56.5%
SHA	Shop - Glen Burnie	52,430	Shop	1979	2,805	53.5	3,295	62.8	17.5%
SHA	211 Building	51,312	Office	1963	2,845	55.4	1,966	38.3	-30.9%
SHA	Shop - Golden Ring	36,230	Shop	1988	2,949	81.4	3,195	88.2	8.4%
SHA	Shop - Owings Mills	49,498	Shop	1985	3,122	63.1	1,993	40.3	-36.2%
SHA	Shop - Hereford	45,754	Shop	1988	3,340	73.0	4,144	90.6	24.1%
SHA	District Office - Frederick	67,621	Office	-	3,379	50.0	688	10.2	-79.6%
SHA	Shop - LaPlata	48,146	Shop	1985	3,407	70.8	3,112	64.6	-8.7%
SHA	Shop - Westminster	47,372	Shop	1986	4,003	84.5	4,019	84.8	0.4%
SHA	District Office - Salisbury	52,568	Office	-	4,586	87.2	3,935	74.9	-14.2%
SHA	District Office - Warren Road	19,003	Office	-	4,611	242.6	5,686	299.2	23.3%
SHA	Shop - Keysers Ridge	94,061	Shop	1983	4,890	52.0	2,342	24.9	-52.1%

SHA	District office/shop - Annapolis	47,777	Office	-	5,557	116.3	5,546	116.1	-0.2%
SHA	707 Building	199,145	Office	-	15,033	75.5	14,881	74.7	-1.0%
SU	1206 A Camden Ave. C-3	625	Office	1950	19	30.7	25	40.0	30.2%
SU	1100 Camden Ave. Center for Conflict Resolution	2,917	Office	1934	33	11.4	74	25.4	122.7%
SU	305 College Ave. Environmental Studies	2,000	Office	1947	37	18.6	43	21.5	15.6%
SU	1214 Camden Ave. University Analysis House	3,085	Office	1937	41	13.3	97	31.4	136.2%
SU	1504 S. Salisbury Blvd	3,000	Storage	1970	47	15.8	101	33.7	113.1%
SU	1106 Camden Ave. International Faculty House	2,368	Office	1940	48	20.4	72	30.4	49.0%
SU	Tower Shelter	212	Antenna/Communication	2014	49	229.5	43	202.8	-11.6%
SU	303 College Ave. Student Arts	2,457	Office	1942	52	21.0	48	19.5	-7.1%
SU	1013 Camden Ave. Philosophy House	3,340	Office	1928	54	16.3	59	17.7	8.4%
SU	1206 Camden Ave. C-2	2,620	Office	1950	61	23.1	66	25.2	9.0%
SU	215 Milford St. M-2	10,900	Storage	1980	69	6.4	184	16.9	165.2%
SU	103 Power St. Grounds Storage	3,675	Storage	1999	74	20.2	48	13.1	-35.3%
SU	Nanticoke River Center	7,082	Other - Education	2006	76	10.8	82	11.6	7.3%
SU	406 Loblolly Lane Carriage House	1,409	Residence	1930	91	64.3	88	62.5	-2.9%
SU	1108 Camden Ave. C-1	2,432	Office	1940	95	39.0	97	39.9	2.2%
SU	DOGWOOD VILLAGE K	1,792	Dormitory/Residence Hall	1985	102	56.9	83	46.3	-18.6%
SU	ATHLETIC TEAM BUILDING-SOCCER	2,573	Other	2012	104	40.6	145	56.4	38.8%
SU	DOGWOOD VILLAGE L	1,792	Dormitory/Residence Hall	1985	105	58.5	109	60.8	4.0%
SU	DOGWOOD VILLAGE O	1,792	Dormitory/Residence Hall	1985	106	59.1	119	66.4	12.3%
SU	DOGWOOD VILLAGE M	1,792	Dormitory/Residence Hall	1985	112	62.8	91	50.8	-19.1%
SU	1220 S. Division D-1	1,535	Office	1950	113	73.4	66	43.0	-41.4%
SU	DOGWOOD VILLAGE N	1,792	Dormitory/Residence Hall	1985	115	64.0	61	34.0	-46.8%

SU	1212 Camden Ave. Camden House	2,680	Office	1940	120	44.8	143	53.4	19.2%
SU	DOGWOOD VILLAGE H	1,792	Dormitory/Residence Hall	1985	124	69.2	68	37.9	-45.1%
SU	DOGWOOD VILLAGE B	1,792	Dormitory/Residence Hall	1985	124	69.2	98	54.7	-20.9%
SU	1308 Camden Ave. Foundation Center	5,468	Office	1925	125	22.9	131	24.0	4.5%
SU	DOGWOOD VILLAGE F	1,792	Dormitory/Residence Hall	1985	129	71.9	86	48.0	-33.2%
SU	DOGWOOD VILLAGE C	1,792	Dormitory/Residence Hall	1985	131	73.1	97	54.1	-25.9%
SU	DOGWOOD VILLAGE G	1,792	Dormitory/Residence Hall	1985	131	73.3	90	50.2	-31.5%
SU	1015 CAMDEN AVE, SALISBURY	2,559	Office	1943	145	56.8	144	56.3	-0.8%
SU	DOGWOOD VILLAGE E	1,792	Dormitory/Residence Hall	1985	147	82.1	103	57.5	-30.0%
SU	DOGWOOD VILLAGE D	1,792	Dormitory/Residence Hall	1985	148	82.4	100	55.8	-32.2%
SU	DOGWOOD VILLAGE J	1,792	Dormitory/Residence Hall	1985	150	83.7	62	34.6	-58.6%
SU	1122 Camden Ave. Honors House	3,946	Office	1956	154	38.9	112	28.4	-27.1%
SU	DOGWOOD VILLAGE A	1,792	Dormitory/Residence Hall	1985	154	85.7	96	53.6	-37.5%
SU	106 Pine Bluff P-1	5,832	College/University	1950	244	41.8	236	40.5	-3.2%
SU	DOGWOOD VILLAGE SUPPORT BUILDING	1,792	Dormitory/Residence Hall	1985	252	140.5	172	96.0	-31.7%
SU	1200 Camden Ave. Admissions House	7,700	Office	1930	319	41.5	294	38.2	-7.9%
SU	Outdoor Tennis Center	2,578	Outdoor Recreation	2016	336	130.5	249	96.6	-26.0%
SU	1204 Camden Ave. Scarborough Hall	8,400	Office	2001	383	45.6	470	56.0	22.8%
SU	1120 Camden Ave Alumni House	7,818	Office	1996	388	49.7	286	36.6	-26.4%
SU	205 Milford St. Indoor Tennis Center	20,000	Other - Recreation	1975	469	23.4	219	11.0	-53.3%
SU	119 Bateman St Support Services	15,200	Warehouse - Unrefrigerated	1960	531	34.9	556	36.6	4.8%
SU	125 Bateman Street IT Building	14,477	Office	1950	666	46.0	524	36.2	-21.3%
SU	201 Milford St. University Fitness	15,034	Fitness Center/Health Club/Gym	1978	701	46.6	595	39.6	-15.1%

SU	1221 Wayne St. Green House & Grounds Office	5,768	Other	1994	1,012	175.5	762	132.1	-24.7%
SU	East Campus Complex	30,695	College/University	1989	1,386	45.1	1,367	44.5	-1.4%
SU	1123 S Division Street - Maint Bldg	36,000	Other - Services	2006	1,823	50.6	1,350	37.5	-25.9%
SU	Sea Gull Stadium	28,000	Stadium (Open)	2016	2,121	75.7	2,149	76.8	1.3%
SU	1306 S. Salis. Blvd (Sea Gull Squ.)	232,000	Dormitory/Residence Hall	2011	8,652	37.3	8,386	36.1	-3.1%
TU	AUBURN HOUSE-AH	11,600	-	1900	756	65.2	734	63.3	-3.0%
TU	CHILD CARE CENTER - CC	11,800	Pre-School/Daycare	2007	1,362	115.4	1,348	114.2	-1.0%
TU	7400 York Road - Y2	41,200	Office	2009	2,080	50.5	1,695	41.1	-18.5%
TU	BARTON-BA	73,696	Dormitory/Residence Hall	2011	4,387	59.5	4,243	57.6	-3.3%
TU	FREDERICK DOUGLASS HOUSE	85,540	Dormitory/Residence Hall	2011	4,912	57.4	4,184	48.9	-14.8%
TU	CARROLLHALL-CH	170,504	Dormitory/Residence Hall	2016	7,850	46.0	6,439	37.8	-18.0%
TU	MARSHALLHALL	156,594	Dormitory	2001	8,232	52.6	7,018	44.8	-14.8%
TU	ADMINISTRATION BLDG (7720)-AD	119,467	Office	1957	10,224	85.6	9,167	76.7	-10.3%
TU	BURKSHIRE - TU MARRIOT- TM	311,209	Dormitory/Residence Hall	1989	19,552	62.8	12,394	39.8	-36.6%
UMB	INFO BLDG 100 N. GREENE ST	32,683	Office	1895	0	0.0	0	0.0	-100.0%
UMB	300 RUSSELL ST, 600 WASH BLVD PS	4,132	Office	1900	11	2.7	4	1.0	-64.1%
UMB	601 W. Lexington	8,835	Office	2000	41	4.7	6	0.7	-85.5%
UMB	300 RUSSELL ST 600 WASH BLVD 2ND FL	4,132	Office	1900	72	17.3	44	10.6	-38.6%
UMB	300 RUSSELL ST 600 WASH BLVD 1ST FL	4,132	Office	1900	97	23.5	48	11.6	-50.7%
UMB	300 RUSSELL ST 600 WASH BLVD 3RD FL	4,132	Office	1900	103	24.9	48	11.6	-53.4%
UMB	School of Social Work Administration Office	3,779	Office	2000	809	214.0	908	240.3	12.3%
UMB	Pine Street Station - 212 N Pine St	9,028	Police Station	1877	1,044	115.7	989	109.5	-5.3%
UMB	Maryland Bar Center (MBC)	30,572	Administration	1930	2,833	92.7	1,983	64.9	-30.0%
UMB	General Research Building	38,147	Laboratory	1967	9,517	249.5	8,412	220.5	-11.6%
UMB	Walterhoffer	14,700	Vacant	2000	13	0.9	8	0.5	-36.1%
UMBC	Guard Station	50	Other	2000	20	394.2	19	380.0	-3.6%

UMBC	Radio Tower & 4 Ancillary Bldgs	1,300	Antenna/Communication	2017	27	20.5	42	32.3	57.9%
UMBC	HazMat Storage	300	Storage	2009	60	200.5	51	170.0	-15.2%
UMBC	Plasma Spray Bldg	2,467	Laboratory	1980	120	48.8	110	44.6	-8.7%
UMBC	Army ROTC	4,245	College/University	1986	140	33.0	136	32.0	-3.0%
UMBC	Naval ROTC	4,632	College/University	1963	156	33.6	156	33.7	0.1%
UMBC	Tech 2 Bldg	4,256	Office	1992	286	67.3	288	67.7	0.5%
UMBC	Alumni House	7,615	Office	1970	360	47.3	293	38.5	-18.7%
UMBC	Professional Studies Bldg & Shed	8,216	Adult Education	1980	614	74.8	852	103.7	38.7%
UMBC	Clean Energy Technology Incubator (CETI)	22,767	Laboratory	1980	2,668	117.2	3,978	174.7	49.1%
UMBC	Chiller Plant	3,129	Energy/Power Station	1980	4,125	1318.2	4,259	1,361.1	3.3%
UMBC	Technology Research Center (TRC)	77,029	Laboratory	1958	12,490	162.1	11,929	154.9	-4.5%
UMBC	Technology Center	134,197	Laboratory	1980	18,875	140.6	18,730	139.6	-0.8%
UMBC	Columbus Center	263,937	Office	1995	58,326	221.0	65,952	249.9	13.1%
UMCP	007-Pocomoke Building	30,046	Police Station	1946	3,581	119.2	3,236	107.7	-9.6%
UMCP	164-University House	15,133	College/University	2012	559	36.9	610	40.3	9.1%
UMCP	170-Alpha Delta Pi Sorority (4535 College Ave)	10,459	College/University	1959	1,472	140.7	1,254	119.9	-14.8%
UMCP	171-Phi Sigma Sigma Sorority (4531 College Ave)	10,445	College/University	1960	1,009	96.6	1,187	113.6	17.6%
UMCP	172-Alpha Chi Omega Sorority (4525 College Ave)	11,712	College/University	1960	1,691	144.4	1,539	131.4	-9.0%
UMCP	173-Delta Phi Epsilon Sorority (4514 Knox Rd)	10,273	College/University	1964	1,264	123.0	1,088	105.9	-13.9%
UMCP	174-Sigma Delta Tau Sorority (4516 Knox Rd)	10,372	College/University	1963	1,409	135.8	1,237	119.3	-12.2%
UMCP	175-Delta Gamma Sorority (4518 Knox Rd)	11,662	College/University	1963	1,387	118.9	1,022	87.6	-26.3%
UMCP	176-Alpha Phi Sorority (7402 Princeton Ave)	11,833	College/University	1964	1,286	108.7	1,341	113.3	4.3%
UMCP	199-MFRI Office/Classroom Building	45,973	College/University	1955	16,535	359.7	6,526	142.0	-60.5%
UMCP	221-Astronomical Observatory	1,643	Other - Technology/Science	1964	149	90.7	103	62.7	-30.9%

UMCP	309-Indoor Practice Facility	20,963	Fitness Center/Health Club/Gym	2001	139	6.6	127	6.1	-8.6%
UMCP	395-Turfgrass Research Facility (Paint Branch)	4,500	Laboratory	1999	696	154.7	863	191.8	24.0%
UMCP	795-Avrum Gudelsky Veterinary Center	85,716	College/University	1989	29,210	340.8	19,818	231.2	-32.2%
UMCP	800-4-H Headquarters	6,155	College/University	1989	702	114.1	879	142.8	25.2%
UMCP	803-Adelphi Road Office Annex (8701 Adelphi Rd)	4,818	Office	1956	17	3.5	7	1.5	-58.8%
UMCP	806-Technology Ventures Building	52,816	College/University	1960	4,953	93.8	4,067	77.0	-17.9%
UMCP	809-Litton 3 (5000 51st Avenue)	9,763	Police Services	1984	2,320	237.6	1,124	115.1	-51.6%
UMCP	810-Severn Building	310,865	College/University	1998	46,497	149.6	40,212	129.4	-13.5%
UMCP	812-Seneca Building	40,770	College/University	1991	4,670	114.5	4,538	111.3	-2.8%
UMCP	821-MFRI Structural Firefighting Building (LaPlata)	9,801	Fire Station/College/University	2001	1,094	111.6	829	84.6	-24.2%
UMCP	826-MFRI Office/Classroom Building (Lower E. Shore)	6,888	College/University	1994	297	43.1	532	77.2	79.1%
UMCP	827-MFRI Structural Firefighting Bldg (Lower E. Shore)	2,329	Fire Station/College/University	1995	122	52.4	90	38.6	-26.2%
UMCP	832-MFRI (Northeast)	9,801	Unknown	2011	714	72.8	789	80.5	10.5%
UMCP	842-MFRI Office/Classroom Building (W. Md)	5,736	College/University	1994	251	43.8	662	115.4	163.7%
UMCP	846-MFRI Structural Firefighting Bldg (Upper E. Shore)	2,329	Fire Station/College/University	2002	597	256.3	445	191.1	-25.5%
UMCP	CNS (Journalism)	1,003	College/University	-	28	27.9	21	20.9	-25.0%
UMCP	LEAF House	4,500	Other-Technology/Science	2007	30	6.7	32	7.1	6.7%
UMES	1 TOM NICHOLS RD 11850, TOM NICHOLS ROAD	940	College/University	1961	13	14.0	4	4.3	-69.6%
UMES	2 IRRIGATION PUMP, BACKBONE ROAD	2,200	College/University	2004	15	6.9	23	10.5	50.7%
UMES	HAWKS LANDING 1322, WILLIAM P HYTCHE	1,006	Other - Lodging/Residential	2001	23	23.2	26	25.8	11.3%

UMES	HAWKS LANDING 1522, WILLAIM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	24	23.6	24	23.9	0.9%
UMES	HAWKS LANDING 1414, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	28	27.4	52	51.7	88.8%
UMES	HAWKS LANDING 1132, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	28	27.4	23	22.9	-16.6%
UMES	HAWKS LANDING 1411, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	28	28.0	29	28.8	3.1%
UMES	HAWKS LANDING 1433, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	29	28.6	22	21.9	-23.4%
UMES	HAWKS LANDING 1223, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	30	30.1	29	28.8	-4.3%
UMES	HAWKS LANDING 1131, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	30	30.2	32	31.8	5.4%
UMES	HAWKS LANDING 1423, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	31	30.5	32	31.8	4.2%
UMES	HAWKS LANDING 1231, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	31	31.0	34	33.8	9.2%
UMES	HAWKS LANDING 1112, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	32	31.9	23	22.9	-28.2%
UMES	HAWKS LANDING 1121, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	33	32.4	26	25.8	-20.3%
UMES	HAWKS LANDING 1211, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	33	32.8	35	34.8	6.2%
UMES	HAWKS LANDING 1421, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	33	32.9	23	22.9	-30.5%
UMES	HAWKS LANDING 1432, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	33	33.1	36	35.8	8.2%
UMES	HAWKS LANDING 1224, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	33	33.2	24	23.9	-28.1%
UMES	HAWKS LANDING 1531, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	35	34.6	29	28.8	-16.6%
UMES	HAWKS LANDING 1424, WILLIAM HYCHE BLVD	1,006	Other - Lodging/Residential	2001	35	34.8	28	27.8	-20.0%
UMES	HAWKS LANDING 1412, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	35	34.8	21	20.9	-40.1%

UMES	HAWKS LANDING 1313, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	36	35.4	35	34.8	-1.8%
UMES	HAWKS LANDING 1434, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	36	35.9	38	37.8	5.1%
UMES	HAWKS LANDING 1324, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	36	36.2	28	27.8	-23.0%
UMES	HAWKS LANDING 1323, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	37	36.5	35	34.8	-4.8%
UMES	HAWKS LANDING 1222, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	38	37.7	19	18.9	-49.9%
UMES	HAWKS LANDING 1431, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	38	37.8	38	37.8	0.0%
UMES	HAWKS LANDING 1532, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	38	38.1	38	37.8	-0.9%
UMES	HAWKS LANDING 1233, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	41	40.3	28	27.8	-31.0%
UMES	HAWKS LANDING 1331, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	42	41.4	20	19.9	-51.9%
UMES	HAWKS LANDING 1334, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	42	42.0	37	36.8	-12.5%
UMES	HAWKS LANDING 1333, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	42	42.2	35	34.8	-17.5%
UMES	HAWKS LANDING 1422, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	42	42.2	23	22.9	-45.8%
UMES	HAWKS LANDING 1332, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	43	42.3	31	30.8	-27.2%
UMES	HAWKS LANDING 1321, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	43	43.1	34	33.8	-21.5%
UMES	HAWKS LANDING 1511, WILLIAM P HYTCHE BLVD	1,006	Other - Lodging/Residential	2001	43	43.1	41	40.8	-5.5%
UMES	HAWKS LANDING 1512, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	45	44.3	29	28.8	-34.9%

UMES	HAWKS LANDING 1232, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	45	45.2	39	38.8	-14.3%
UMES	HAWKS LANDING 1234, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	46	45.3	31	30.8	-32.0%
UMES	HAWKS LANDING 1221, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	47	46.4	38	37.8	-18.5%
UMES	HAWKS LANDING 1122, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	49	49.0	53	52.7	7.5%
UMES	HAWKS LANDING 1312, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	51	50.9	43	42.7	-16.0%
UMES	HAWKS LANDING 1212, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	54	54.1	32	31.8	-41.2%
UMES	HAWKS LANDING 1413, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	59	58.7	34	33.8	-42.5%
UMES	2 TOM NICHOLS ROAD 11850, TOM NICHOLS ROAD	14,033	College/University	1961	90	6.4	26	1.9	-71.0%
UMES	HAWKS LANDING 1000, WILLIAM P HYCHE	1,006	Other - Lodging/Residential	2001	134	132.9	121	120.3	-9.5%
UMES	HAWKS LANDING 1314, WILLIAM P HYCHE BLVD	1,006	Other - Lodging/Residential	2001	207	206.1	207	205.8	-0.2%
UMES	Coastal Ecology	11,000	College/University	2005	1,000	90.9	703	63.9	-29.7%