

Executive Order 01.01.2019.08
Energy Savings Goals for State Government

Annual Report

Covering FY 2021 data and FY 2022 activities.



Prepared by the Department of General Services
Office of Energy & Sustainability
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Table of Contents

INTRODUCTION	5
SUMMARY OF STATEWIDE BUILDING ENERGY USE.....	6
COVID19 IMPACT ON ENERGY AND ENVIRONMENT	8
STRATEGIES FOR ACHIEVING ENERGY REDUCTIONS IN STATE OPERATIONS	11
Energy Audits	11
Energy Performance Contracting (EPC) Program	11
Agency Engagement	12
Maryland Green Registry Award.....	13
PROGRESS ON DGS ENERGY-SAVING INITIATIVES	14
1. Determine FY 2018 Baseline.....	14
2. Identify Savings Opportunities	14
3. Sub-metering.....	15
4. Perform Energy Audits	16
5. Opportunities Identified in the Audit Reports	17
6. LED Lighting Project.....	17
7. Retro-commissioning.....	17

Report on Governor Hogan’s Executive Order 01.01.2019.08

8. Green Purchasing Specifications 18

9. Integration with DGS Construction Divisions..... 18

PROGRESS ON MEA’s TASKS OUTLINED IN THE EXECUTIVE ORDER..... 18

ACTIVITY REPORTS FROM THE TOP 20 ENERGY USERS..... 19

I. University of Maryland College Park (UMCP)..... 19

 Agency Energy Usage Snapshot: 19

 *Updated from FY18-19 Annual Report. 20

 Missing bill and data report: 20

 Change in Energy Use Index (EUI):..... 20

 Agency report: 20

II. Department of Public Safety & Correctional Services (DPSCS)..... 22

 Agency Energy Usage Snapshot: 22

 *Updated from FY18-19 Annual Report. 22

 Missing bill and data report: 22

 Change in Energy Use Index (EUI): 23

 Agency report: No update. 23

III. University of Maryland Baltimore (UMB) 23

 Agency Energy Usage Snapshot: 23

 Missing bill and data report: 24

 Change in Energy Use Index (EUI):..... 24

 Agency Report: No update..... 24

IV. University of Maryland Baltimore County (UMBC) 25

 Agency Energy Usage Snapshot: 25

 Missing bill and data report: 25

 Change in Energy Use Index (EUI):..... 26

 Agency report: No update. 26

V. Department of General Services 26

 Agency Energy Usage Snapshot: 26

 Missing bill and data report: 27

 Change in Energy Use Index (EUI):..... 27

 Agency report: 27

VI. Maryland Aviation Administration (MDOT-MAA) 28

 Agency Energy Usage Snapshot: 28

Report on Governor Hogan’s Executive Order 01.01.2019.08

Missing bill and data report: 28

Change in Energy Use Index (EUI):..... 28

Agency report: 29

VII. Towson University 29

Agency Energy Usage Snapshot: 29

Missing bill and data report: 29

Change in Energy Use Index (EUI):..... 30

Agency report: No update. 30

VIII. Maryland Dept of Health (MDH) 30

Agency Energy Usage Snapshot: 30

Missing bill and data report: 30

Change in Energy Use Index (EUI):..... 31

Agency report: No update. 31

IX. Morgan State University (MSU) 31

Agency Energy Usage Snapshot: 31

Missing bill and data report: 31

Change in Energy Use Index (EUI):..... 32

Agency report: No update. 32

X. Maryland Transit Administration (MDOT-MTA)..... 32

Agency Energy Usage Snapshot: 32

Missing bill and data report: 33

Change in Energy Use Index (EUI):..... 33

Agency report: No update. 33

XI. Frostburg State University (FSU)..... 33

Agency Energy Usage Snapshot: 33

Missing bill and data report: 34

Change in Energy Use Index (EUI):..... 34

Agency report: No update. 34

XII. Salisbury University 34

Agency Energy Usage Snapshot: 34

Missing bill and data report: 35

Change in Energy Use Index (EUI):..... 35

Agency report: No update. 35

XIII. Maryland Stadium Authority 35

- Agency Energy Usage Snapshot: 35
- Missing bill and data report: 36
- Change in Energy Use Index (EUI): 36
- Agency report: No update. 36

XIV. University of Maryland Eastern Shore (UMES)..... 37

- Agency Energy Usage Snapshot: 37
- Missing bill and data report: 37
- Change in Energy Use Index (EUI): 37
- Agency report: 38

XV. Bowie State University (BSU) 38

- Agency Energy Usage Snapshot: 38
- Missing bill and data report: 38
- Change in Energy Use Index (EUI): 38
- Agency report: No update. 39

XVI. State Highway Administration (MDOT-SHA) 39

- Agency Energy Usage Snapshot: 39
- Missing bill and data report: 39
- Change in Energy Use Index (EUI): 39
- Agency report: No update. 40

XVII. Maryland Port Administration (MDOT-MPA) 40

- Agency Energy Usage Snapshot: 40
- Missing bill and data report: 40
- Change in Energy Use Index (EUI): 40
- Agency report: No update. 41

XVIII. Coppin State University (CSU)..... 41

- Agency Energy Usage Snapshot: 41
- Missing bill and data report: 41
- Change in Energy Use Index (EUI): 42
- Agency report: No update. 42

XIX. Maryland Transportation Authority (MDOT-MDTA) 42

- Agency Energy Usage Snapshot: 42
- Missing bill and data report: 42

Change in Energy Use Index (EUI):..... 43

Agency report: No update. 43

XX. Military Department..... 43

Agency Energy Usage Snapshot: 43

Missing bill and data report: 43

Change in Energy Use Index (EUI):..... 44

APPENDICES 44

Appendix 1: Data Methodology..... 44

SCOPE OF REPORTING..... 45

DEFINITIONS..... 45

REPORTING METRICS 46

EXCLUSIONS FROM EO REPORTING 46

Appendix 2: Energy Usage for All State Agencies, FY 2018 & FY 2019 47

Appendix 3: Top 20 Agencies – Independently Metered Buildings..... 48

INTRODUCTION

On June 25, 2019, Governor Hogan issued Executive Order 01.01.2019.08, *Energy Savings Goals for State Government*, which created a new energy savings initiative and goal for State-owned buildings. The “Maryland Leads by Example” initiative, to be developed and managed by the Department of General Services (DGS) and the Maryland Energy Administration (MEA), has a goal to reduce the energy consumption of State-owned buildings 10% by the year 2029, compared to a FY 2018 baseline. The Executive Order (EO) 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 third Annual Report covers activities undertaken in FY 2022. Due to the time lag in receiving and processing utility invoices, the energy data is from FY 2021. 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 in FY 2022 was the substantial increase in the cost of energy. Both natural gas and electricity prices rose and are forecast to rise over the next year or two. 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.

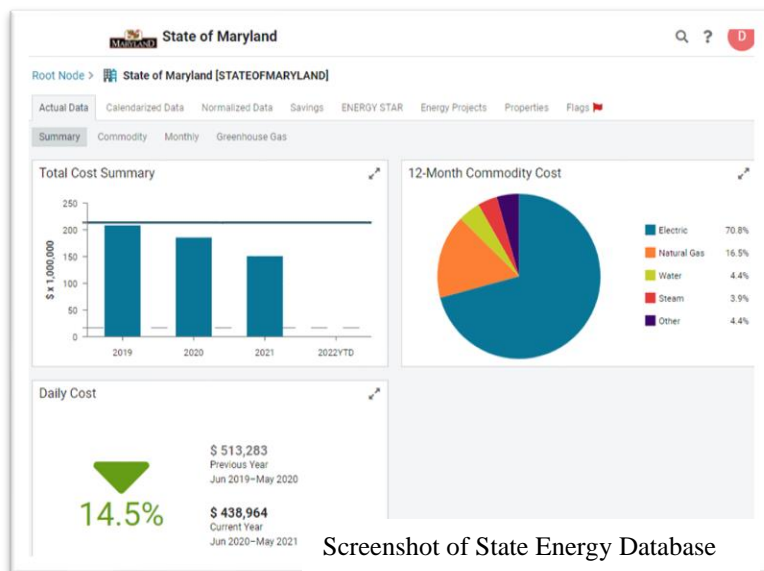
DGS has several specific tasks outlined in the EO that, along with other energy-saving activities, will be reported in this and subsequent Annual Reports. The tasks include:

- 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 ten 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, 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

Tracking the energy use of Maryland State government buildings is made possible through the Maryland State Energy Database



Screenshot of State Energy Database

<https://app.energycap.com/app/dashboards/user/2211>, which is the most comprehensive database of State government energy use in the country. Begun in 2008, the database has grown to include 15,400 utility accounts with 1.9 million invoices paid through 120 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 sub metered 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 FY 2022 activities that occurred since the last Annual Report, but due to the time lag between receiving and processing utility bills, the energy data is from FY 2021.**

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 10% 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	9,627,793	94,476,193	-	101.9	-
FY19	\$172,691,078	9,431,286	94,476,193	-0.00%	99.8	-2.04%
FY20	\$154,087,076	8,791,815	93,919,895	-0.59%	93.6	-8.14%
FY21	\$147,695,291	8,592,489	93,782,679	-0.73%	91.6	-10.09%

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	8,744,722	84,673,162		103.3	
FY19	8,589,198	84,673,162	0.00%	101.4	-1.78%
FY20	8,014,375	84,287,030	-0.46%	95.1	-7.93%
FY21	7,787,507	84,157,614	-0.61%	92.5	-10.40%

Rest of the State:

	Energy Usage (MMBtu)	Floor Area (SqFt)	Change in Floor Area	EUI (kBtu per SqFt)	Change in EUI
FY18	883,071	9,803,031		90.1	
FY19	842,088	9,803,031	0.00%	85.9	-4.64%
FY20	777,440	9,632,865	-1.74%	80.7	-10.41%
FY21	804,981	9,625,065	-1.82%	83.6	-7.16%

COVID19 IMPACT ON ENERGY AND ENVIRONMENT

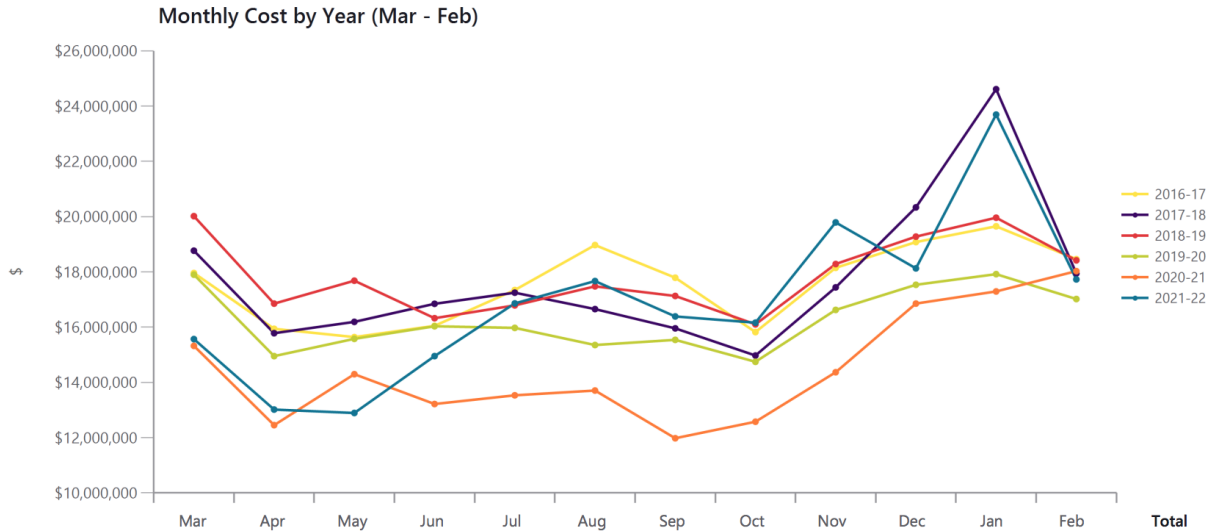
On March 5th, 2020, Governor Hogan issued the State’s first COVID-related state of emergency, and on March 13th, DBM imposed a period of mandatory telework across state agencies for all non-essential State employees who could perform their duties from home. University campuses soon followed by sending students and staff off-campus. The energy-related impact of telework was immediate as staff turned off lights and computers and left their offices, and students left their dorms and classrooms.

The pandemic brought changes to all aspects of our lives, including how we consume energy, where we consume it, and the amount we consume. The following section provides a detailed analysis of the effect of telework and other COVID-related policies on Maryland State government’s use of energy and other utilities during the first year of the pandemic. Our COVID19 analysis is not restricted to the energy use of State-owned buildings as defined in the Executive Order, but instead looks at all utility use and cost for all purposes throughout Maryland State government.

We found that there was a significant reduction in energy and other utility use for the first full 12 months of COVID19 (see below). The reduction was due to both a mandatory telework policy for State employees that left buildings mostly empty, and the closure of university campuses. Further, the State’s gained experience with widespread mandated telework brought what may be permanent changes to the way the State operates its buildings. Potential reliance on sustained telework policies and planned “hotel” office space allocations may reduce energy use in future years.

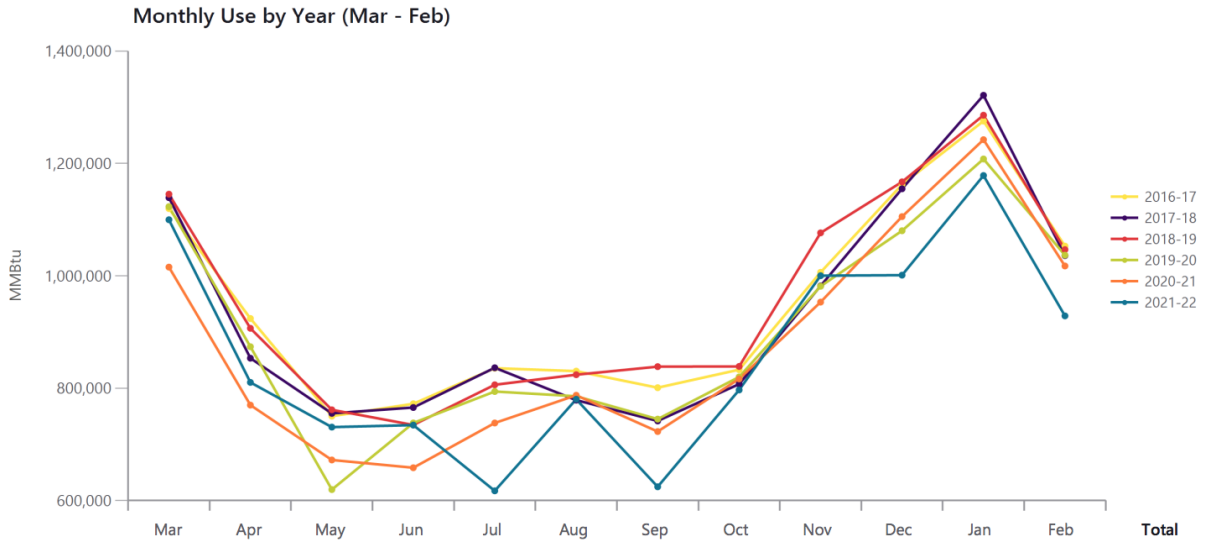
Chart 1 displays all utility expenses (including water and sewer) for the March through February periods from March 2016 to February 2021. The bottom orange line on the graph is March 2020 through February 2021. Taking into account the change in cost per unit of electricity and natural gas between 2019 and 2021, the real reduction in utility expenses during the March 2020 to February 2021 period, compared to the March 2019 to February 2020 period, was approximately \$30,373,653. The March 2021 to February 2022 period shows an increase in energy cost due primarily to increasing energy rates.

Chart 1 (weather normalized data)



Energy reduction (electric, natural gas, fuel oil, propane and steam in MMBTUs) for the March through February periods from March 2016 to February 2021 is displayed in Chart 2 below. There was an 8% reduction in energy use during the March 2020 to February 2021 period compared to the average energy use of the previous four years. The associated reduction in GHG emissions was 79,754 tons of CO₂, or the equivalent of removing 17,345 cars from the road for one year.

Chart 2 (weather normalized data)



Although most employees were teleworking, State buildings remained open during the pandemic year. Heating, cooling, and building ventilation remained active, whereas office equipment and lighting went mostly unused. We found that the impact of telework on energy use varied between different energy sources, with electricity use declining more than 15% during the March 2020 through February 2021 period, whereas natural gas use increased by 2% over the same period.

The large reduction in electricity use was primarily due to the drastic reduction of lighting and plug loads such as computers and other office equipment, and the increased consumption of natural gas use was likely due to building managers increasing building ventilation to combat the spread of COVID. As more outside air was brought in, more heat was needed, causing natural gas consumption to rise. Anecdotal evidence from some of the university campus energy managers confirms this assumption. (See box).

As State employees filter back to their offices, and significantly, as university campuses reopen, we expect to see an increase in energy use post-pandemic. With building occupancy rates going up, increased energy use is inevitable, and the increase in ventilation will remain for the foreseeable future. However, we are anticipating that the energy penalty associated with bringing more outside air into our buildings will be partially offset by a more liberal telework policy. On balance, we expected to find that energy use for FY 2022 to be on a par or slightly lower than FY 2021, with energy use for FY 2023 approaching pre-pandemic levels. As expected, energy use for the March 2021 to February 2022 period remains below historic averages and shows a persistence in energy use reductions following the initial year of

TOWSON UNIVERSITY

As the university made the decision to keep buildings open, there were also modifications made to ventilation systems to address COVID concerns. These were primarily adjustments to automation systems increasing outside-air intake and thereby increasing ventilation related energy consumption in many buildings.

Steve Kolb
Energy Manager
Towson University

COVID. The reductions are likely due to ongoing energy savings initiatives, continued teleworking and the reduction and combining of office space.

Beyond the influence of mandatory telework on reducing the State's utility budget, the policy had a positive environmental impact as well due to reduced employee commuting. According to the latest American Community Survey, Maryland is first in the nation in terms of longest commuting times with an average of 32.5 minutes¹, and an average commute distance of 16 miles round trip². Data collected by DGS Real Estate division shows that 22,574 Maryland State employees teleworked either all or part time during 2020, which avoided approximately 90,296,000 miles driven and a reduction of 40,212 tons of CO₂.

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 26 active EPCs, with a total contract value of more than \$265 million, annual guaranteed savings of nearly \$25 million, and annual GHG reductions of 111,000 tons of CO₂.

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.

¹ https://www.roads.maryland.gov/OPPEN/Traffic_Volume_Trends1.pdf

² https://www.streetlightdata.com/wp-content/uploads/2018/03/Commutes-Across-America_180201.pdf

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 is engaged in early-stage EPC discussions with DPSC and MTA, with the DPSC project expected to schedule a pre-bid meeting by September 2022. In order to effectively manage these projects, OES entered into a task order agreement with an engineering consulting firm. The DPSC project at the MCI-Hagerstown facility has the potential to be one of the largest projects undertaken in the EPC program and should deliver significant cost, environmental and energy savings. The MTA project has significant challenges due to the nature of the expected energy conservation measures, which will include energy savings from regenerative braking and track heating on the subway system. OES is working with MTA to overcome these challenges and expects to start this project in 2023.

OES entered into a contract in 2022 with a firm to provide third-party review of the annual M&V reports submitted by energy service companies (ESCO) under contract with the State. The annual M&V reports for review are created by ESCOs to track the energy use at several EPC projects to assure that the annual savings guarantee is intact. 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.

Agency Engagement

The Executive Order recognizes that the tasks outlined for DGS will not on their own achieve the 10% 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 consumption”*. 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 three times in FY 2022 to share information on each entity's response to COVID, 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 fifty to sixty participants at each.

Members of the Working Group, their baseline energy use in FY18, and building area include:

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	18.68%
2	Public Safety & Correctional Svcs, 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)	1,562,344	340,403	3.54%
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%

Maryland Green Registry Award

Due to an initiative developed by DGS, the Governor’s Office and MDE, two Maryland Green Registry awards were created to recognize Executive Branch state agencies for their energy-saving accomplishments. This year’s State Agency Energy Award, given to an agency that exhibited an agency-wide commitment to reducing its energy use, went to MPT for their continued commitment to undertaking projects that reduce their energy and environmental footprint. The State Building Energy Award, given to a building-level project that showed innovation and deep energy savings, went to MDOT for the LEED Gold Certified Harry R. Hughes building. <https://mde.maryland.gov/MarylandGreen/Pages/LeadershipWinners.aspx>

PROGRESS ON DGS ENERGY-SAVING INITIATIVES

1. Determine FY 2018 Baseline

In order to accurately measure progress towards the 10% 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 FY 2018 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 will 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)	FY19 Spend in Owned Buildings (\$)
MD Public Television	140,497	\$761,450
Veterans Affairs	358,048	\$1,002,510
Food Center Authority	63,600	\$7,744
Dept. of Planning	103,285	\$175,234

Other agencies, such as DNR (FY 2019 energy spend \$1,607,222) 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 will be complete in fall 2022 and will help OES identify energy-savings opportunities in Annapolis.

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 2021 the auditing team started their second round of energy assessments under a new MOU. The team performed audits on 2,166,287 square feet of state-owned buildings, consisting of 45 locations for three different agencies, Maryland School for the Deaf (MSD) Frederick Campus, Department of Military (DMIL) Maryland National Guard, and the Maryland Transit Administration (MTA).

The focus for FY 2022 was to produce actionable energy modeling reports that further align the auditing program with professional recommendations for conducting energy assessments. The first steps were for the team to analyze the historic utility use, peak demand, and cost of all facilities to develop the energy utilization index (EUI) of the building. The auditors then performed walkthrough energy assessments and compared each building's EUI to similar building's EUI scores to assess the potential for improved energy performance. The initial assessments were also used to develop a priority list for buildings that need a more enhanced analysis, including energy consumption and peak demand analysis.

Energy Survey Analysis (ESA) reports were prepared for facilities where no redundant/oversized systems were present that resulted in high energy consumption which could affect the EUI. ESAs were used to identify low-cost/no-cost measures for improving energy efficiency and provide a listing of potential capital improvements that merit further consideration. For buildings that were recommended for further analysis, ESA reports also included eQuest modeling, electrification recommendations and a listing of potential capital-intensive improvements with savings and cost analyses of all practical energy efficiency measures (EEMs).

ESA reports are designed to provide adequate information for the agency head/operator to make decisions on which energy savings recommendations to act upon. During FY 2023, follow up meetings will be set with each agency to discuss which EEMs from the FY 2022 ESA reports can be implemented as installed measures.

Measures identified during the ESA analysis reviews are then be bid out where a more detailed scope of work is generated with more rigorous engineering and economic analyses, to include vendor pricing, life-cycle cost analysis, construction, and ancillary cost.

In July 2021 DGS issued a solicitation on eMMA for an Indefinite Quantity Contract (IQC) to prequalify energy-focused general contractors, which was approved in November 2021. The purpose of the Energy General Contractor IQC was so that, once EEMs are decided as measures to be implemented, projects can be bid out as one through the approved EGCs. The EGS are also tasked with securing utility rebates as a minimum requirement of the contractors participating on the IQC is that they are approved utility partners.

5. Opportunities Identified in the Audit Reports

OES continues to analyze the results of the first and second year of audits to develop scopes of work for one or more energy-saving projects at the facilities audited. Concurrently, OES is working with DBM, MEA and the utilities to identify funding. Lastly, OES developed a procurement vehicle through an IQC to prequalify energy contracting firms to have them available to address the measures identified in the audits.

The primary means of financing projects identified through the audits will be through agency funds, utility rebates, and/or MEA loans.

Two projects that came out of the audit analysis in FY 2022 that are moving towards implementation are for lighting, refrigeration, and HVAC controls at the Office of Chief Medical Examiner in Baltimore City, and a second project at the Rockville Courthouse/Multiservice Center for lighting and building modifications to reduce the HVAC load.

6. LED Lighting Project

In FY 2022 DGS encumbered \$3 million in SEIF funds and an additional \$1.2 million in a loan from MEA to install 13,720 LED lighting fixtures and controls throughout 12 State-owned buildings totaling 1.4 million square feet. Annual cost savings from the projects will be \$649,310 with electricity savings of 3,566,011 kWh per year. The reduced use of electricity is equal to a reduction of 2,671 metric tons of CO₂ annually. DGS is planning to replace an additional \$4.2 to \$5 million of inefficient light fixtures in FY 2023.

7. Retro-commissioning

In December 2020, DGS completed a retro-commissioning pilot at the Rockville MSC. Retro-commissioning involves an in-depth evaluation of opportunities to improve the efficiency of an existing building's HVAC equipment and systems. In this case, the building's automated controls were updated, and associated systems were returned to their original operating parameters. The result of the project is that between January and April 2021, the natural gas use of the building, normalized for weather variations, was reduced by 70% over the average use during the same months of the previous four years. We are estimating the payback from the project to be less than 24 months. OES identified two other DGS-owned properties to continue

the pilot project and work began on them in spring 2022. OES will track the energy use of all three of the buildings for the year following the retro-commissioning, and assuming good results, will develop a retro-commissioning program to roll out to other agencies.

8. 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.

9. Integration with DGS Construction Divisions

OES has been working with DGS Capital and Facilities Maintenance divisions over the past year 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.

PROGRESS ON MEA’S TASKS OUTLINED IN THE EXECUTIVE ORDER

Governor Hogan’s Executive Order 01.01.2019.08 is a direct challenge to State agencies to reduce their collective energy expenditure of over \$609,000 per day. Most clean or efficient energy solutions require some investment to unlock their savings potential. Since 2010, 19 different State agencies have obtained energy-related project finance from the [Maryland Energy Administration](#) (MEA). Forward-thinking agencies pursue MEA’s grant and loan offerings to obtain technologies that make their facilities more comfortable and safer, while also reducing utility bills and environmental impacts. Efficiency upgrades in lighting, space conditioning, water heating, automated building controls, and building envelope improvements pay for themselves many times over.

MEA extends finance to agencies that propose a scope of work that “pays for itself” through the annual energy savings that it creates. An acceptable time-horizon for project payback is usually 13 years or less. Depending on the type of technology to be implemented, agencies can also secure additional funding from their local electric or gas utility in the form of rebates and incentives. Many agencies usually combine grants or loans with rebates to replace older equipment that approaches the end of economic life.

Each fiscal year brings a new mix of MEA financing incentives. State agencies can browse MEA’s finance offerings at any time on a [resource summary webpage](#). Highlights from this page include zero-interest loans as well as grants and technical assistance for solar power investments. Note also that MEA finance can also be used to expand the scope of energy performance contracts. For more information, contact Christopher Russell, program manager, at 443 908-17167 or chris.russell@maryland.gov.

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 2022 efforts in the sections below. Previous Annual Reports contain information on each agency/campus for the period prior to FY 2022. 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*		18.68%	121.8*
FY19	14,767,416*	1,814,048*	0.8%*	19.23%	122.8*

Report on Governor Hogan’s Executive Order 01.01.2019.08

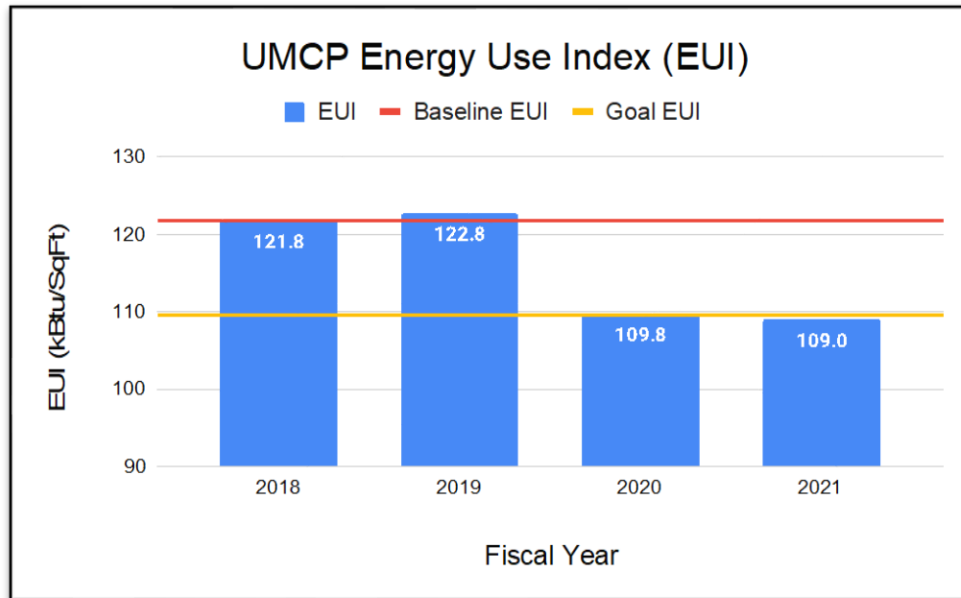
FY20	14,767,416	1,621,326	-9.9%	18.44%	109.8
FY21	14,767,416	1,609,390	-10.5%	18.73%	109.0

*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

Change in Energy Use Index (EUI):



Agency report:

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 40,700 students, 14,000 faculty and staff, and 388,000 alumni all dedicated to the pursuit of 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 Top 30 Colleges and Universities list of largest green power users. For the latest reporting period of July 2022, UMD is ranked #7 among colleges and universities and #85 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 process of updating our Climate Action Plan to outline strategies that will help us achieve this accelerated timeline for carbon neutrality. Some of these strategies include: 1) a public-private partnership called the NextGen Energy Program which will kick off a plan to replace, renew and modernize UMD's aging energy system which provides heating, cooling and electric services to campus; 2) a plan to make the university fleet produce zero emissions by replacing approximately 1,000 gas powered light-duty trucks and vehicles with electric models as they wear out; and 3) to expand outreach to our campus community to stay engaged and informed of our progress through the creation of [SustainableUMDProgressHub](#), a data driven website that allow users to learn all about the sustainability related activities that are completed, in progress, and planned for at UMD.

In collaboration with and agreement from DGS, UMD is basing its report utilizing site energy data, not its utility bills. The reason for this methodology is due to the large Combined Heat and Power (CHP) plant at UMD. As it reached its 20-year equipment life span, the CHP has been unreliable in the past few years and fluctuations in operating hours year over year has a very significant impact on 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 for heating needs. Reporting the gas MMBtus associated with the CHP would be the equivalent of a source energy resource which is then co-mingled with other site energy resources such as grid purchased electricity. It would not be comparable to what other state agencies are reporting since they do not have any distributed generation capabilities. It also would not be representative of the energy efficiency improvements that UMD has implemented over the years as the campus physical footprint continues to grow with the addition of new buildings to meet programmatic needs. Because of its extensive building sub-meter network, UMD is able to provide the site energy use data, which is comparable to what other state agencies are

reporting. Using this methodology, UMD has reduced its energy consumption by over 10% in FY 2021 over FY 2018 baseline.

The continued reduction against the baseline year can be attributed to intentional energy efficiency improvements that were implemented beginning in FY 2019 with savings continuing to be realized in FY 2021. These efforts include the implementation of an energy performance contract affecting eight high EUI buildings, a pilot project of automated scheduling of large spaces such as lecture halls that would significantly reduce HVAC demand during unoccupied/unscheduled periods, ongoing lighting upgrade projects and rolling out an energy management tool that empowers our frontline HVAC personnel with current energy data to alert them to any potential operational anomalies. In FY 2022, we completed lighting upgrades in ten buildings that saves 2.2 million kWhs annually. With the success of the pilot automated scheduling project, we continue to expand this strategy to other scheduling software used across campus and continue refresher courses on the energy management tool.

The University of Maryland welcomed students back to campus for full in person learning in the 2021-2022 (FY 2022) academic year; the previous year FY 2021 was remote learning in the fall semester and low-density occupancy in the spring semester. We continue to improve energy efficiency and reduce campus energy consumption through the strategies outlined above.

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

*Updated from FY18-19 Annual Report.

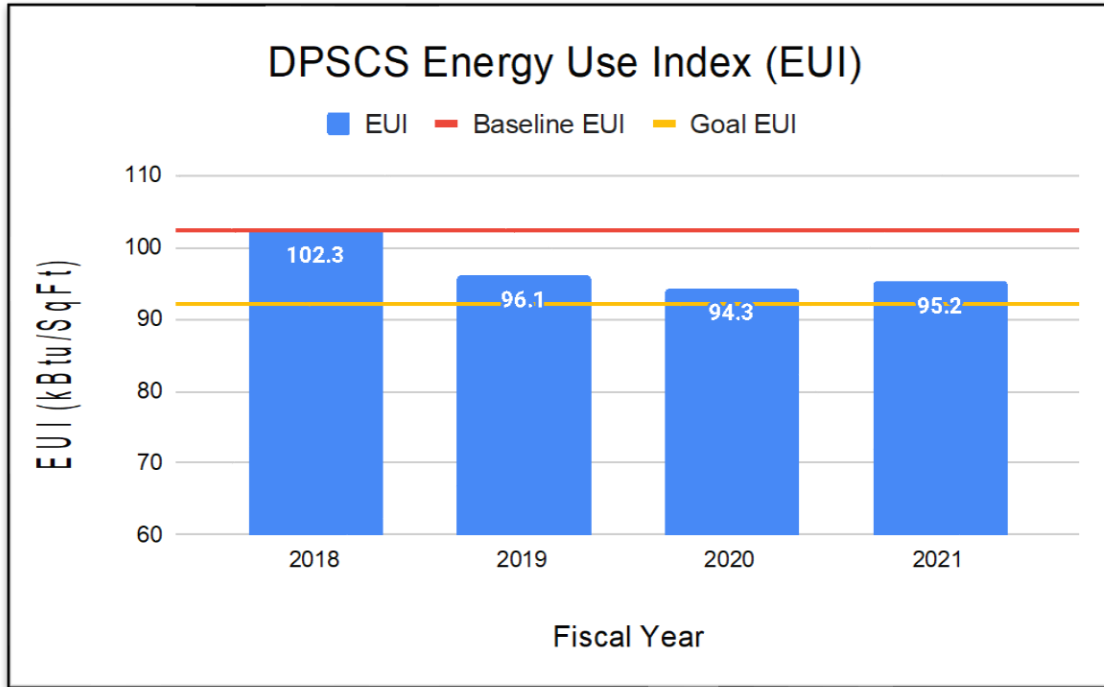
Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est \$ Value of Missing Bills
FY18	80.19%	12	\$135,492

Report on Governor Hogan’s Executive Order 01.01.2019.08

FY19	80.19%	9	\$652
FY20	80.19%	88	\$258,065
FY21	80.19%	67	\$48,783

Change in Energy Use Index (EUI):



Agency report: No update.

III. University of Maryland Baltimore (UMB)

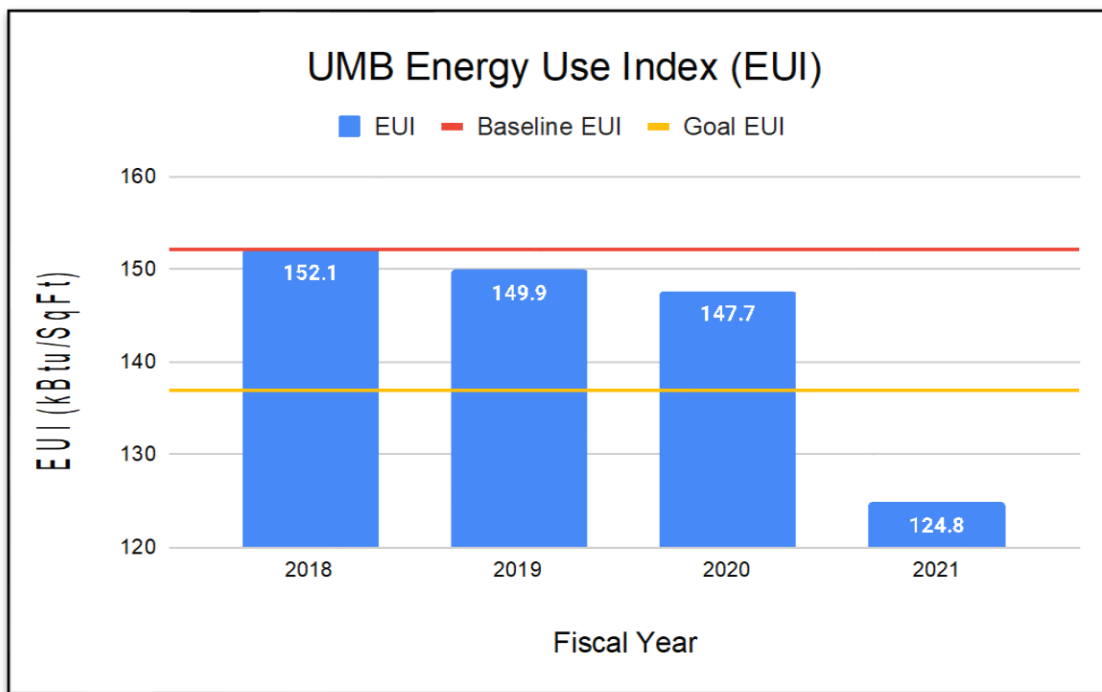
Agency Energy Usage Snapshot:

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

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

Change in Energy Use Index (EUI):



Agency Report: No update.

IV. University of Maryland Baltimore County (UMBC)

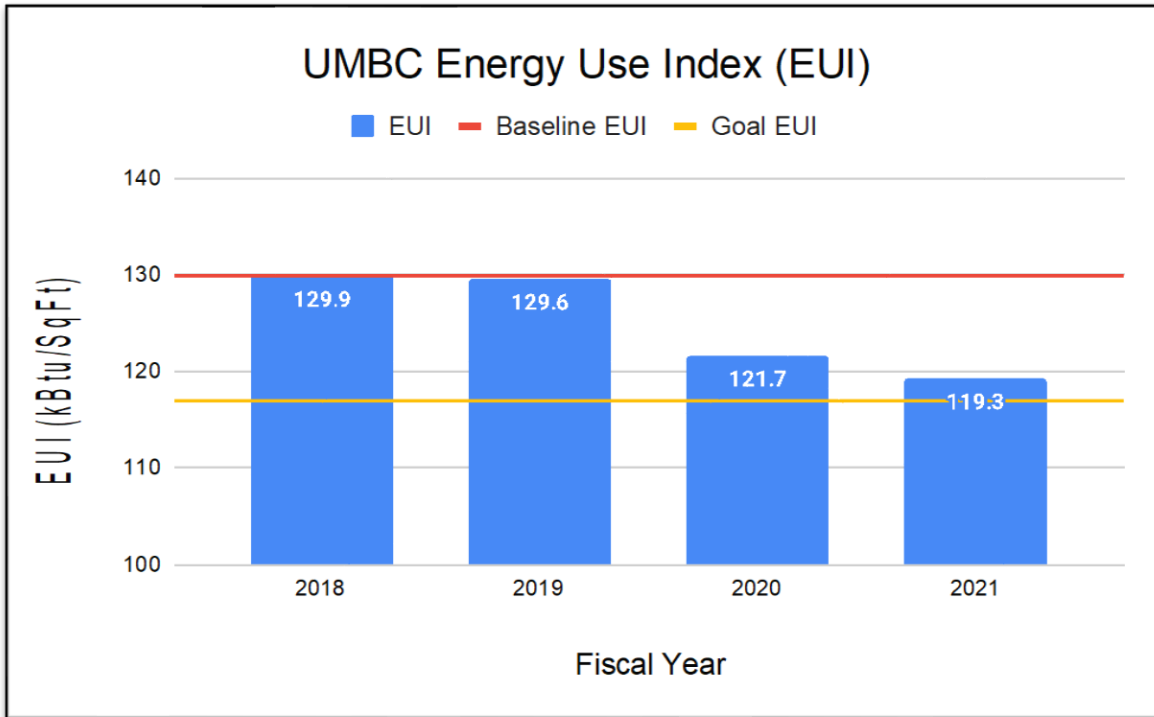
Agency Energy Usage Snapshot:

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

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%	0	\$0.00

Change in Energy Use Index (EUI):



Agency report: No update.

V. Department of General Services

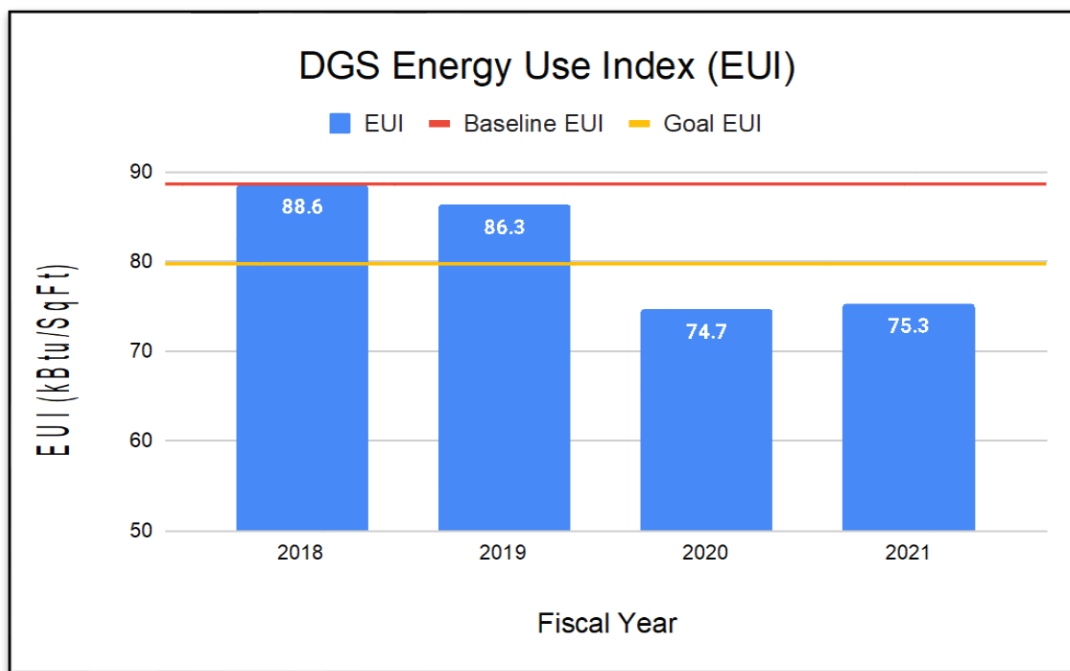
Agency Energy Usage Snapshot:

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

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

Change in Energy Use Index (EUI):



Agency report:

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

VI. Maryland Aviation Administration (MDOT-MAA)

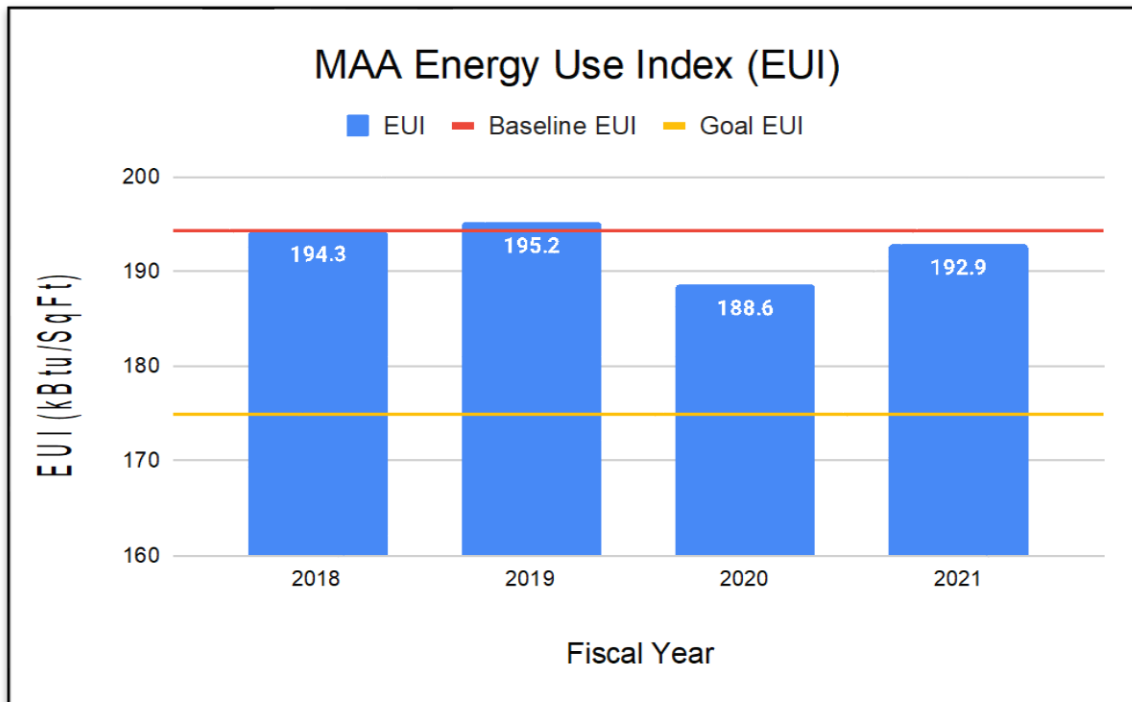
Agency Energy Usage Snapshot:

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

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

Change in Energy Use Index (EUI):



Agency report:

BWI airport has continued the program to convert its many types of lighting, airfield, high mast, street and buildings to more efficient LEDs. This effort will continue over the next three to five years. In addition to maximizing the use of BGE rebates, the use of the Maryland Energy Administration Lawton loan program is being pursued. In addition to conversion of the lights the airport has been installing sophisticated lighting control system and improving and upgrading existing control systems. New bathrooms with state-of-the-art water conservation are being installed. A more efficient chilling system is being installed in a section of the terminal. BWI is in the early stages of implementing a program to increase the supply of non-carbon- based electricity to the terminal from 20% to 60%. The combination of using less and buying clean energy will lead to an airport operating with a significantly reduced carbon footprint in the next few years.

VII. Towson University

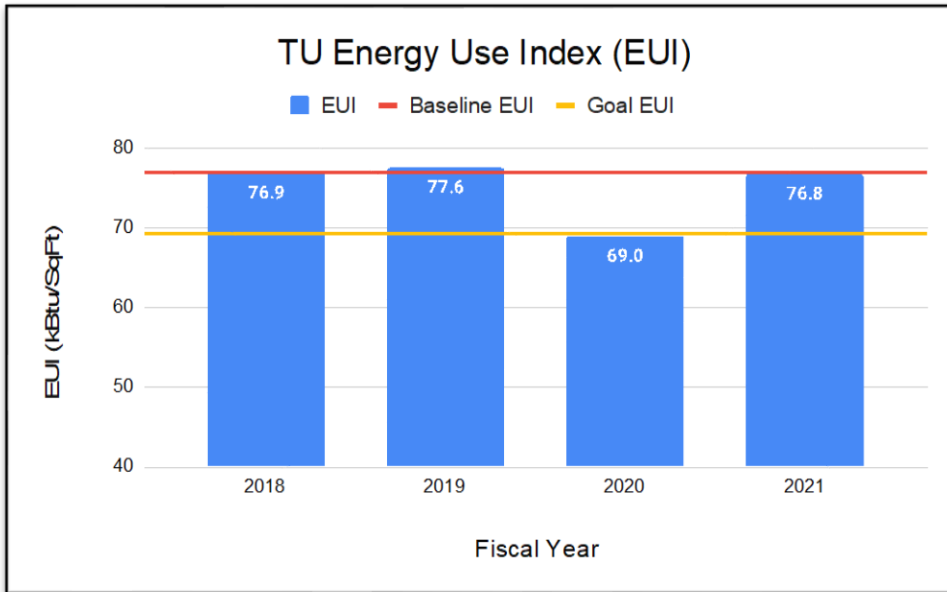
Agency Energy Usage Snapshot:

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

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

Change in Energy Use Index (EUI):



Agency report: No update.

VIII. Maryland Dept of Health (MDH)

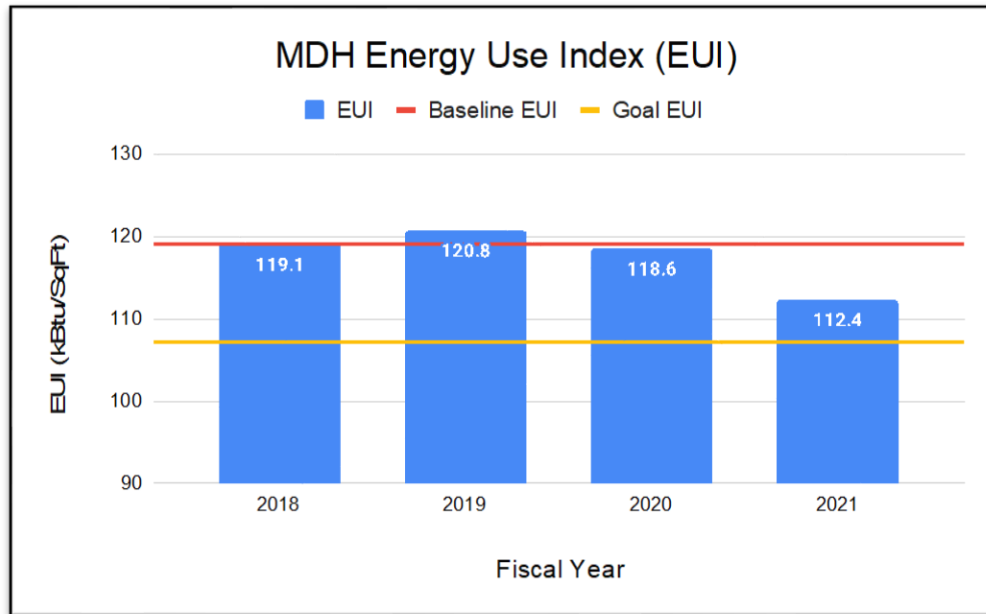
Agency Energy Usage Snapshot:

ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	3,208,181	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

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

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

* Updated from FY18-19 Annual Report

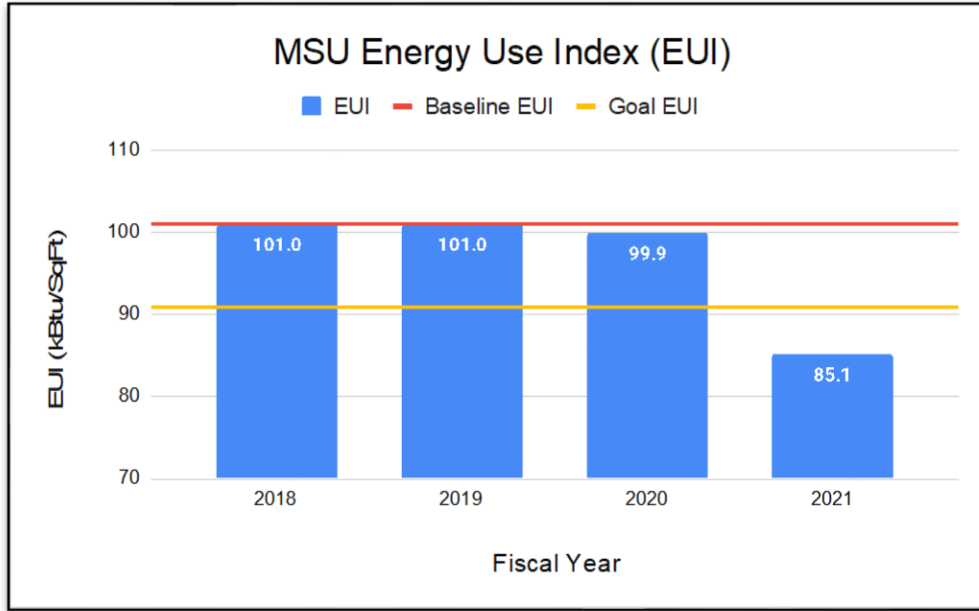
Missing bill and data report:

DATA COMPLIANCE			
	% Floor Area Reported to DGS	Number of Missing Bills	Est \$ Value of Missing Bills
FY18	100%	0	\$0.00
FY19	100%	0	\$0.00

Report on Governor Hogan’s Executive Order 01.01.2019.08

FY20	100%	0	\$0.00
FY21	100%	45	\$410,580

Change in Energy Use Index (EUI):



Agency report: No update.

X. Maryland Transit Administration (MDOT-MTA)

Agency Energy Usage Snapshot:

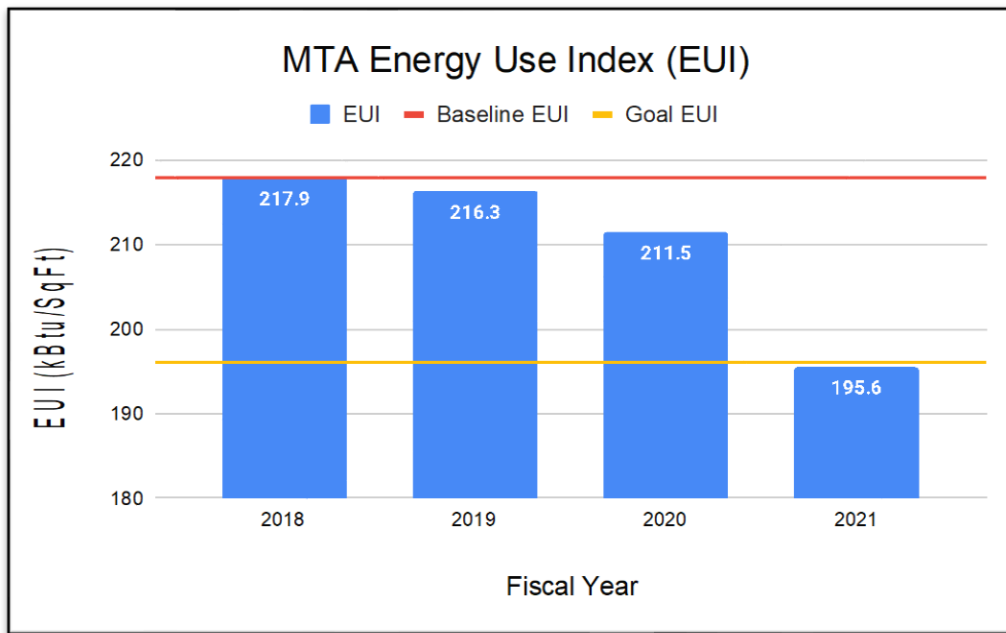
ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	1,562,344	340,403		3.54%	217.9
FY19	1,562,344	337,921	-0.7%	3.58%	216.3
FY20	1,562,344	330,463	-2.9%	3.76%	211.5
FY21	1,562,344	305,642	-10.2%	3.56%	195.6

Report on Governor Hogan’s Executive Order 01.01.2019.08

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

Change in Energy Use Index (EUI):



Agency report: No update.

XI. Frostburg State University (FSU)

Agency Energy Usage Snapshot:

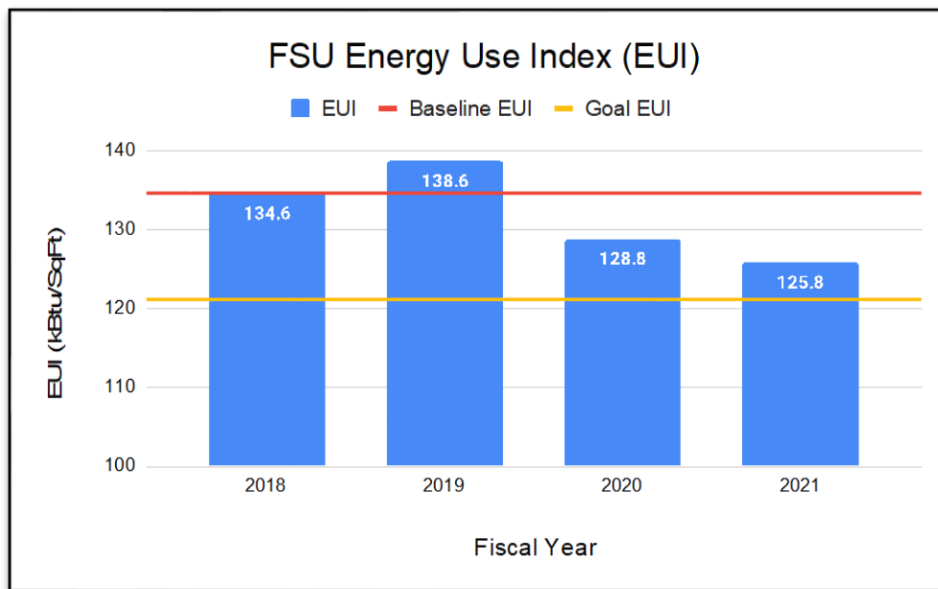
ENERGY USAGE					
	Square Feet of Buildings	MMBTU	% Change in Energy Usage	% of State Total MMBTU	EUI (kBtu/SqFt)
FY18 (baseline)	1,541,581*	207,429		2.15%	134.6*
FY19	1,541,581*	213,733*	+3.0%*	2.27%	138.6*
FY20	1,541,581*	198,559*	-4.3%*	2.26%	128.8*
FY21	1,538,831	193,619	-6.5%*	2.25%	125.8

* 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

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

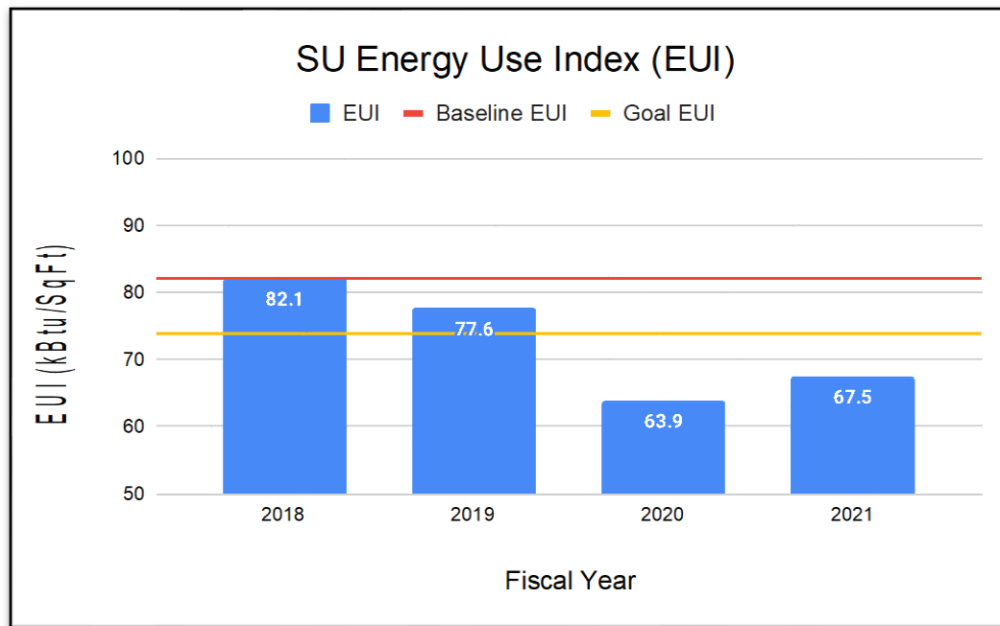
Report on Governor Hogan’s Executive Order 01.01.2019.08

FY21	2,217,621	149,700	-17.8%	1.74%	67.5
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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

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

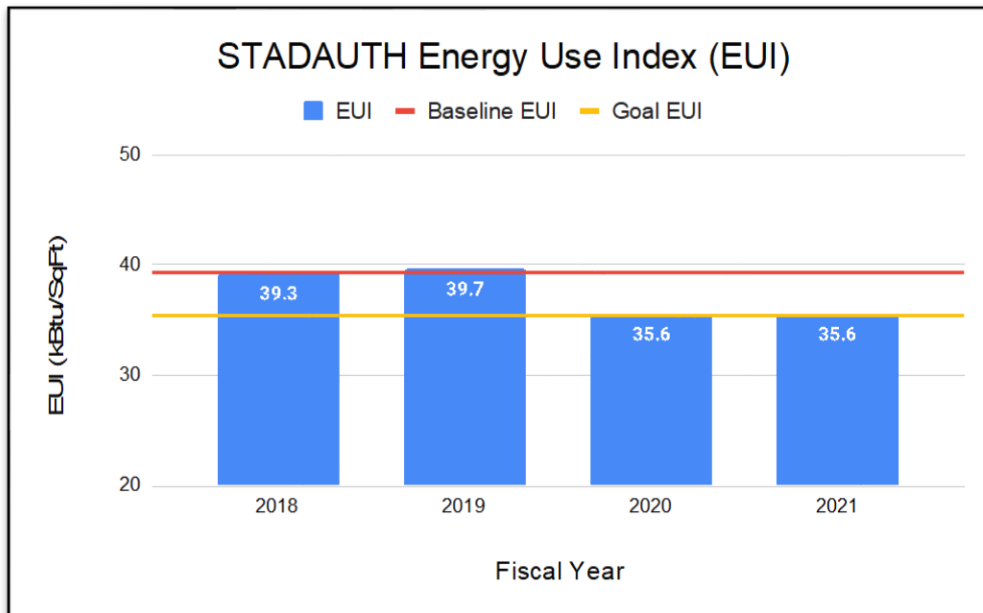
Report on Governor Hogan’s Executive Order 01.01.2019.08

FY20	4,274,000	152,337	-9.3%	1.73%	35.6
FY21	4,274,000	152,242	-9.4%	1.77%	35.6

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

Change in Energy Use Index (EUI):



Agency report: No update.

XIV. University of Maryland Eastern Shore (UMES)

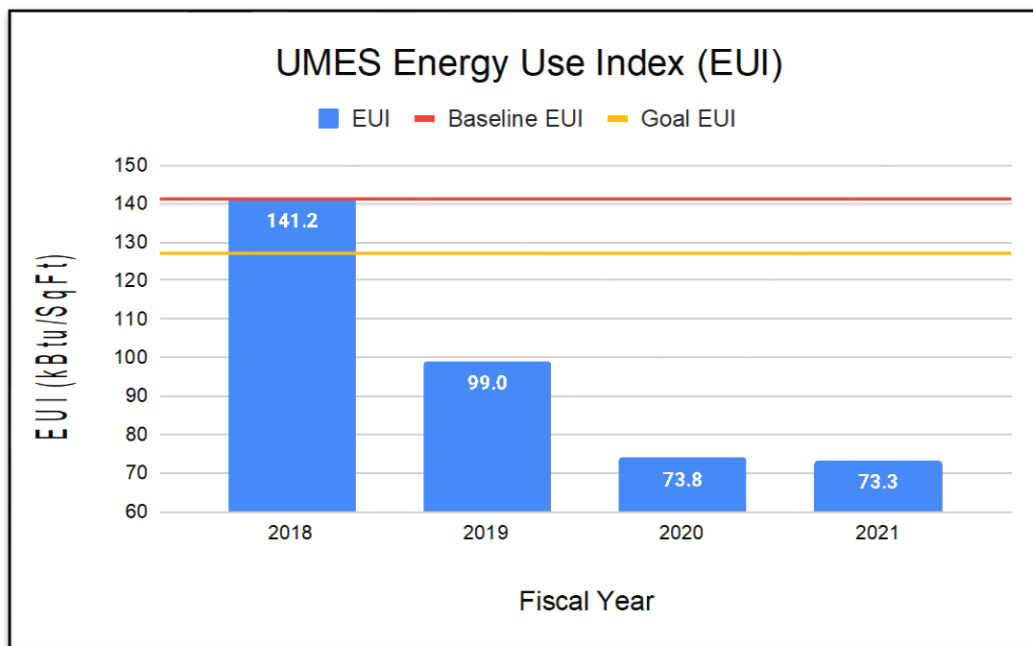
Agency Energy Usage Snapshot:

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

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

Change in Energy Use Index (EUI):



Report on Governor Hogan’s Executive Order 01.01.2019.08

Agency report: No update.

XV. Bowie State University (BSU)

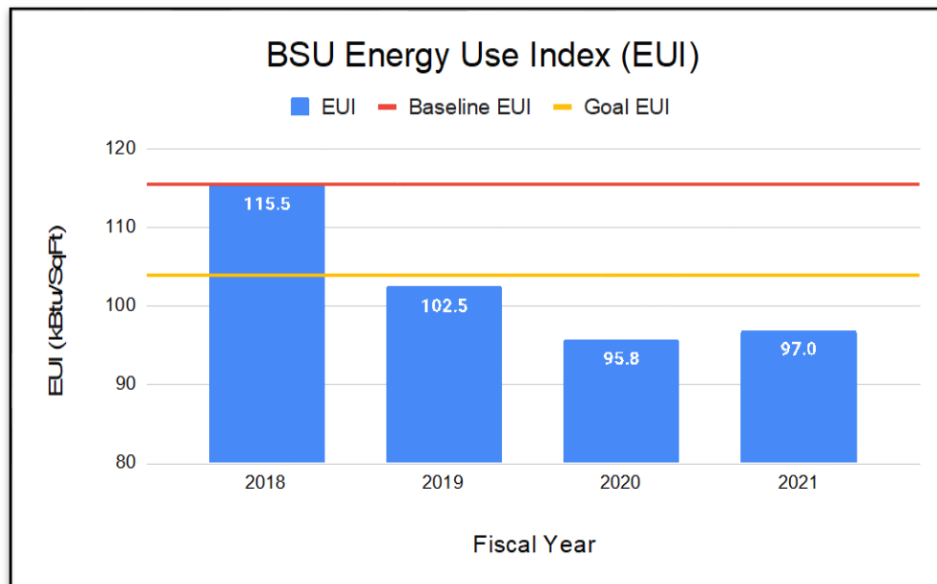
Agency Energy Usage Snapshot:

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

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

Change in Energy Use Index (EUI):



Agency report: No update.

XVI. State Highway Administration (MDOT-SHA)

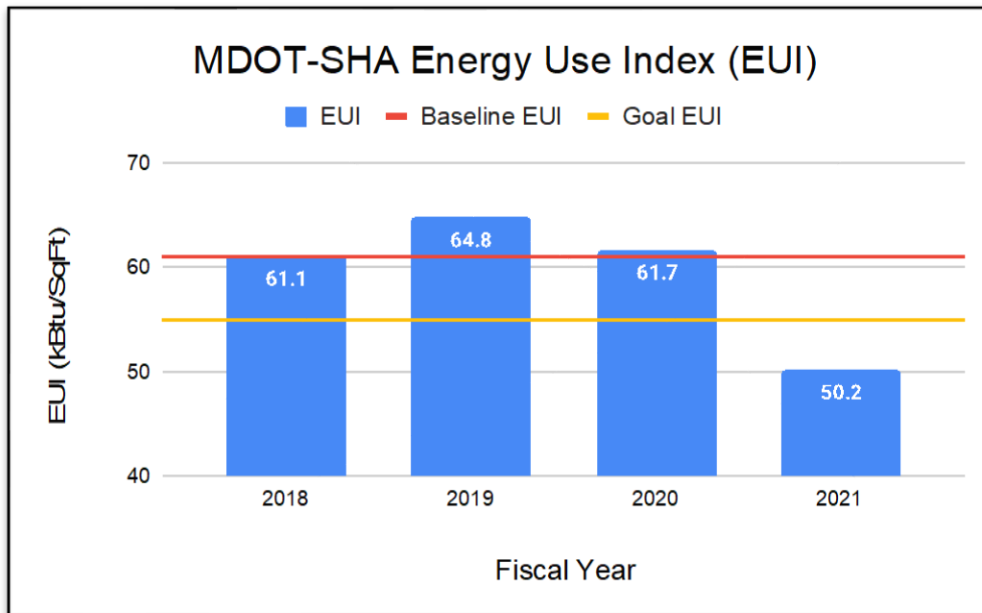
Agency Energy Usage Snapshot:

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

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

Change in Energy Use Index (EUI):



Agency report: No update.

XVII. Maryland Port Administration (MDOT-MPA)

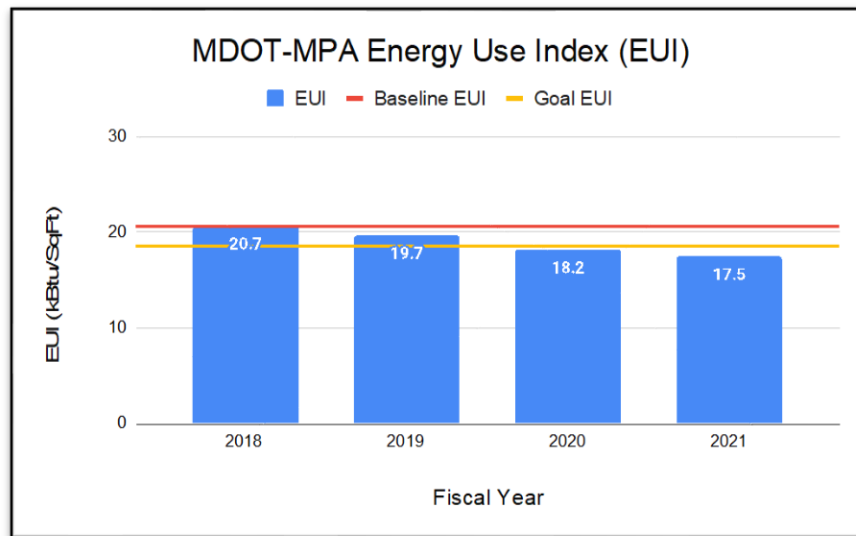
Agency Energy Usage Snapshot:

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

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

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.

Report on Governor Hogan’s Executive Order 01.01.2019.08

Agency report: No update.

XVIII. Coppin State University (CSU)

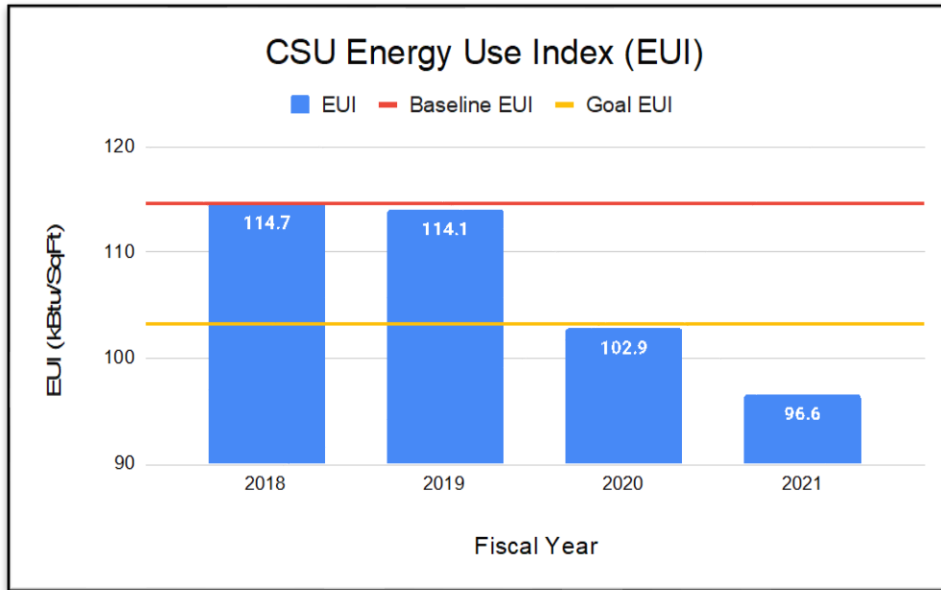
Agency Energy Usage Snapshot:

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

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

Change in Energy Use Index (EUI):



Agency report: No update.

XIX. Maryland Transportation Authority (MDOT-MDTA)

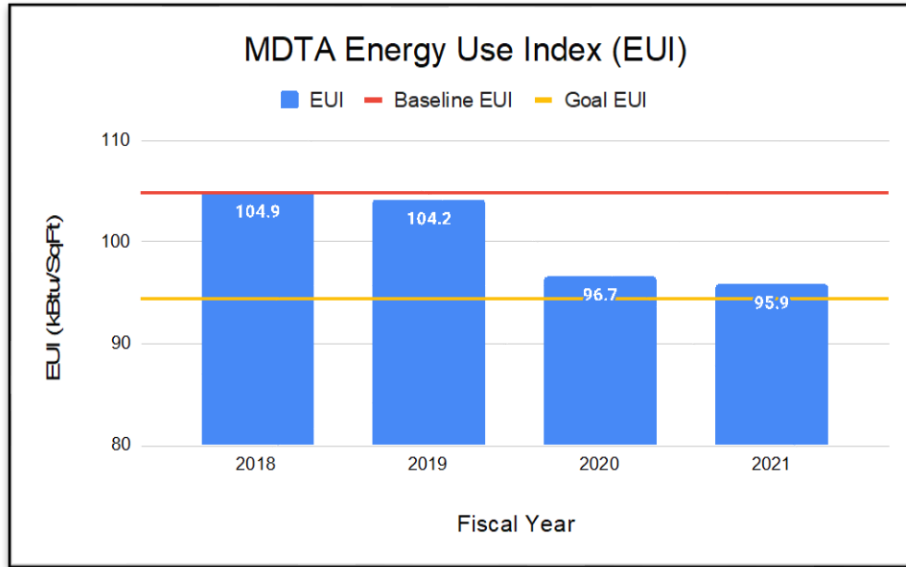
Agency Energy Usage Snapshot:

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	103602	-8.6%	1.21%	95.9

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

Change in Energy Use Index (EUI):



Agency report: No update.

XX. Military Department

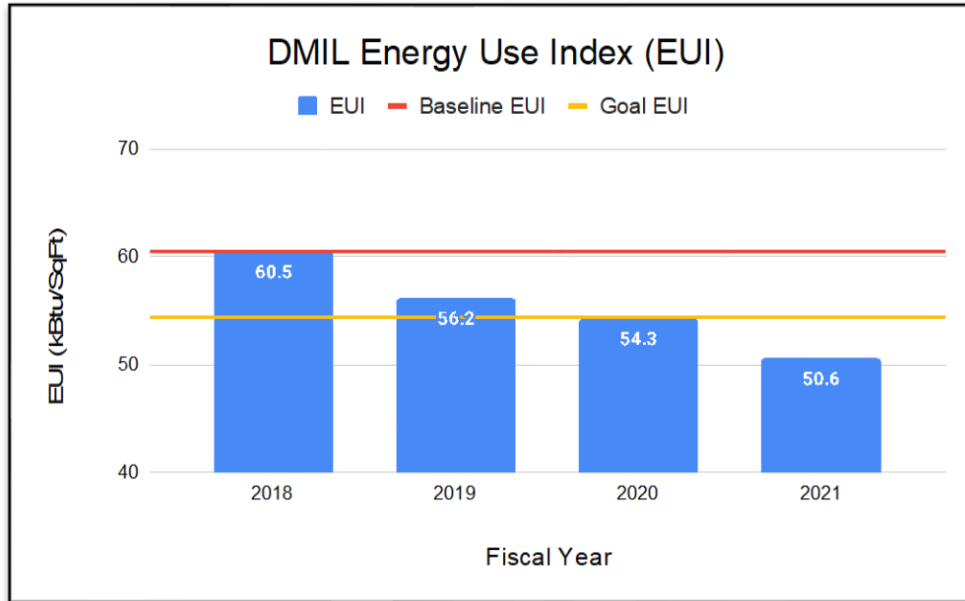
Agency Energy Usage Snapshot:

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

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

Change in Energy Use Index (EUI):



Agency report:

Maryland Military Department (MMD) has realized great reductions in electricity at two- (2) sites where BGE performed LED upgrades on the area pole lights. At Parkville Readiness Center, where four- (4) fixtures were upgraded, they contributed to a daily trend drop from an average over 0.65 kWh to average less than 0.48 kWh. The 3-year usage average of 233 kWh has dropped to 150 kWh over 12 months. At Havre de Grace Military Reservation where 26 fixtures were upgraded, the 3-year average of 45,000 kWh dropped to 20,000 kWh. This drop has occurred even though initially, there were a few inoperative HID fixtures.

At Annapolis RC, the 15 parking lot lights with HID technology were replaced with 13 LED fixtures; two- (2) flood type fixtures were eliminated by using the LED units. Initial savings calculations yield over 27,000 kWh annually.

Lastly, we completed energy audits for over 900,000 square feet of 14 National Guard buildings. With the efforts of DGS and the University of Maryland, College Park, their reports have been submitted with their recommendations for energy conservation and reductions. We will prioritize these recommendations to develop projects for FY 2023 and beyond.

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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Everything that consumes energy on that campus including: • Buildings • Outdoor lighting • Parking lots and structures
Includes SQFT for	<ul style="list-style-type: none"> • 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 FY 2018 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

Report on Governor Hogan’s Executive Order 01.01.2019.08

Appendix 2: Energy Usage for All State Agencies, FY 2018 & FY 2019

Summary energy usage by all agencies, ranked by baseline year usage (FY18).

Rank	Agency	FY18 Sqft	FY18 Usage (MMBtu)	FY18 EUI (kBtu / Sqft)	FY21 Usage (MMBtu)	FY21 EUI (kBtu / Sqft)	% Change in Energy Usage
1	University of Maryland College Park (UMCP)*	14,767,416	1,798,702	121.8	1,609,390	109.0	-10.5%
2	Public Safety & Correctional Svcs, Dept of (DPSCS)	15,374,567	1,385,819	90.1	1,221,746	95.2	-6.9%
3	University of Maryland Baltimore (UMB)	5,950,069	904,967	152.1	741,666	124.8	-17.9%
4	University of Maryland Baltimore County (UMBC)	4,467,954	580,472	129.9	533,055	119.3	-8.2%
5	General Services, Dept of (DGS)	6,498,791	575,501	88.6	489,171	75.3	-15.0%
6	Maryland Aviation Administration (MDOT-MAA)	2,920,577	567,330	194.3	561,828	192.9	-0.7%
7	Towson University (TU)	6,036,906	463,915	76.9	463,515	76.8	-0.1%
8	Health, Maryland Dept of (MDH)	3,208,181	382,122	119.1	360,713	112.4	-5.6%
9	Morgan State University (MSU)	3,396,043	342,866	101.0	288,972	85.1	-15.7%
10	Maryland Transit Administration (MDOT-MTA)	1,562,344	340,403	217.9	305,642	195.6	-10.2%
11	Frostburg State University (FSU)	1,547,381	207,429	134.1	193,619	125.8	-6.5%
12	Salisbury University (SU)	2,217,621	182,154	82.1	149,700	67.5	-17.8%
13	Stadium Authority, MD (STADAUTH)	4,274,000	168,040	39.3	152,242	35.6	-9.4%
14	University of Maryland Eastern Shore (UMES)	1,093,365	154,368	141.2	80,098	73.3	-48.1%
15	Bowie State University (BSU)	1,332,563	153,917	115.5	129,272	97.0	-16.0%
16	State Highway Administration (MDOT-SHA)	2,276,739	139,194	61.1	114,378	50.2	-17.8%
17	Maryland Port Administration (MDOT-MPA)***	6,513,833	134,714	20.7	107,317	17.5	-15.5%
18	Coppin State University (CSU)	1,096,489	125,809	114.7	105,927	96.6	-15.8%
19	Maryland Transportation Authority (MDTA)	1,082,817	113,602	104.9	103,602	95.9	-8.6%
20	Military Dept (DMIL)	1,607,302	97,215	60.5	75,654	50.6	-16.4%
21	Saint Mary’s College of MD (SMCM)	928,924	121,494	130.8	105,814	113.9	-12.9%
22	Juvenile Services, Dept of (DJS)	1,028,758	93,953	91.3	86,532	84.1	-7.9%
23	Police, Dept of MD State (DMSP)	600,622	87,359	145.4	88,475	147.3	1.3%
24	University of Maryland Global Campus (UMGC)	1,005,624	82,637	82.2	71,133	70.73	-14.0%
25	Baltimore City Community College (BCCC)	736,165	77,446	105.2	66,170	116.6	10.8%
26	Motor Vehicle Administration (MDOT-MVA)	355,031	69,399	195.5	57,895	163.1	-16.6%
27	University of Baltimore (UB)	885,521	58,403	66.0	62,967	71.1	7.7%
28	University of Maryland Center for Environmental Science (UMCES)	349,510	58,298	166.8	43,552	124.6	-25.3%
29	Natural Resources, Dept of (DNR)***	1,173,946	52,957	45.1	57,161	48.7	8.0%
30	Veterans Affairs, MD Dept of (MDVA)	358,048	36,401	101.7	32,670	91.2	-10.3%
31	University of MD Shady Grove (UMSG)	507,256	34,273	67.6	20,819	41.0	-39.3%
32	Maryland Public Television (MPT)	140,497	30,953	220.3	26,647	189.7	-13.9%

Report on Governor Hogan’s Executive Order 01.01.2019.08

Rank	Agency	FY18 Sqft	FY18 Usage (MMBtu)	FY18 EUI (kBtu / Sqft)	FY21 Usage (MMBtu)	FY21 EUI (kBtu / Sqft)	% Change in Energy Usage
33	Deaf, MD Schools for the	617,035	26,869	43.6	38,345	62.1	42.5%
34	Agriculture, MD Dept of (MDOA)	181,227	16,679	92.0	15,849	87.5	-4.9%
35	Human Resources, Dept of (DHR)	347,934	16,122	46.3	11,129	32.0	-30.9%
36	Planning, Dept of (MDP)	99,717	5,888	59.1	6,321	64.3	8.9%
37	Environmental Service, MD (MES)	69,913	5,374	76.9	4,467	71.9	-6.5%
38	Labor, Licensing and Regulation, Dept of (DLLR)	316,591	5,908	18.7	6,960	22.0	17.9%
39	Canal Place Preservation & Dev Authority (CPPDA)	29,994	1,839	61.3	1,367	45.6	-25.6%
40	Environment, MD Dept of the (MDE)	7,118	490	68.8	293	41.1	-40.3%
41	Food Center Authority, MD (MFCA)	63,600	329	5.2	417	6.6	26.2%
	TOTAL/AVERAGE	94,476,193	9,627,793	101.9	8,592,489	91.6	-10.09%

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 FY 2018. Buildings included are those with building-level utility company meters.

Report on Governor Hogan's Executive Order 01.01.2019.08

Agency	Building Name (Independently Metered only)	Floor Area (Sqft.)	Building Primary Use	Year Built	FY18 Usage (MMBT U)	FY18 EUI (kBTU/ /Sqft.)	FY21 Usage (MMBTU)	FY21 EUI (kBTU /Sqft.)	% Change in Usage from FY18 to FY21
BSU	Goodloe Alumni House	3,815	College / University	1916	255	66.8	145	37.9	-43.31%
DGS	Hilton Height Community Center - 530 N Hilton	8,750	Office	1948	425	48.5	332	37.9	-21.84%
DGS	Annapolis Post Office	22,994	Office	2017	839	36.5	1327	57.7	58.16%
DGS	Hilton Height Community Center - 510 N Hilton	22,900	Other – Entertainment / Public Assembly	1948	1,383	60.4	1219	53.2	-11.85%
DGS	Hagerstown - J. Louis Boublitz DC/MSC	27,240	Courthouse	2000	1,430	52.5	1578	57.9	10.37%
DGS	Denton - John Hargreaves DC/MSC	31,798	Courthouse	1998	1,788	56.2	1609	50.6	-10.02%
DGS	Essex/Rosedale DC/MSC	22,975	Courthouse	1982	2,100	91.4	1970	85.7	-6.20%
DGS	Arbutus/Catonsville DC/MSC	32,657	Courthouse	1982	2,179	66.7	1097	33.6	-49.66%
DGS	Centreville - Carter Hickman DC/MSC	37,783	Courthouse	1982	2,772	73.4	2642	69.9	-4.69%
DGS	OPD - 201 St. Paul Street	32,000	Office	1900	2,783	87.0	2157	67.4	-22.48%
DGS	Prince Frederick - Louis L. Goldstein DC/MSC	73,000	Courthouse	1991	3,669	50.3	4301	58.9	17.21%
DGS	Westminster DC/MSC	43,000	Courthouse	2002	4,125	95.9	4856	112.9	17.71%
DGS	Towson DC	52,000	Courthouse	1994	5,069	97.5	4029	77.5	-20.52%
DGS	Ellicott City DC/MSC	75,300	Courthouse	1982	5,309	70.5	5562	73.9	4.77%
DGS	Hyattsville DC/MSC	82,000	Courthouse	1994	5,362	65.4	6847	83.5	27.68%
DGS	Wabash - Borgerding DC/MSC	52,824	Courthouse	1986	5,409	102.4	5413	102.5	0.08%
DGS	Leonardtown - Joseph P. Carter DC/MSC	77,920	Courthouse	1994	5,661	72.7	4170	53.5	-26.34%
DGS	Jessup State Complex	126,800	Office	1970	6,011	47.4	5607	44.2	-6.72%
DGS	2100 Guilford - Parole & Probation	82,953	Prison / Incarceration	1924	6,012	72.5	1563	18.8	-74.00%
DGS	South Baltimore - Hargrove DC/MSC	84,730	Courthouse	2003	6,721	79.3	8293	97.9	23.39%
DGS	Elkton DC/MSC	126,700	Courthouse	1983	6,725	53.1	3436	27.1	-48.91%
DGS	Glen Burnie - George M. Taylor DC/MSC	97,104	Courthouse	1982	6,948	71.6	7498	77.2	7.92%
DGS	Silver Spring - L. Leonard Ruben DC	79,596	Courthouse	2004	7,273	91.4	7254	91.1	-0.26%

Report on Governor Hogan's Executive Order 01.01.2019.08

DGS	Shillman Building	160,000	Courthouse	1972	9,564	59.8	8837	55.2	-7.61%
DGS	Salisbury - Paul Martin DC/MSC	224,343	Courthouse	1990	10,182	45.4	12759	56.9	25.31%
DGS	Bel Air - Mary Risteau DC/MSC	140,000	Courthouse	1983	11,604	82.9	10799	77.1	-6.93%
DGS	Peoples Resource Center - 100 Community Place	155,900	Office	1991	12,237	78.5	8792	56.4	-28.15%
DGS	Civic Plaza - 200 W BALTIMORE St	217,700	Office	1911	15,600	71.7	13897	63.8	-10.91%
DGS	Rockville DC/MSC	167,000	Courthouse	2011	26,234	157.1	19280	115.4	-26.51%
DGS	WilliamDonaldSchaefer-6 St. Paul	305,400	Office	1986	33,508	109.7	25862	84.7	-22.82%
DMIL-ARMY	209 S STORAGE SHED	975	Storage	1976	2	2.2	3	3.0	40.45%
DMIL-ARMY	P-1 ALLEGHENY PUMP	64	Water Supply Facility	1988	9	147.6	7	116.1	-25.92%
DMIL-ARMY	W-1 PUMP HOUSE	80	Pump House	1988	15	192.1	13	156.9	-15.43%
DMIL-ARMY	2-Bay Maintenance Shop	6,657	Storage	1971	18	2.7	0	0.0	-100.00%
DMIL-ARMY	RANGERS HOUSE	1,600	Office	1988	27	16.7	13	8.4	-51.40%
DMIL-ARMY	TABLERS LODGE	820	Office – Lodging / Residential	1988	36	44.4	24	28.9	-34.01%
DMIL-ARMY	STRAUSS LODGE A-1	2,112	Office – Lodging / Residential	1988	39	18.5	29	13.5	-25.68%
DMIL-ARMY	WHITE OAK FMS	2,873	Storage	1972	44	15.2	65	22.6	49.23%
DMIL-ARMY	TABLER'S STORAGE SHED	120	Storage	1988	44	370.1	3	23.3	-93.24%
DMIL-ARMY	113- GATEHOUSE BUILDING	64	Other	1990	63	980.9	65	1015.4	3.54%
DMIL-ARMY	W-3 WHSE BUILDING	6,156	Warehouse - Unrefrigerated	1924	64	10.4	41	6.7	-35.97%
DMIL-ARMY	MAINTENANCE SHOP	1,800	Storage	1988	79	43.7	55	30.6	-30.11%
DMIL-ARMY	BLD. 402 WELL PUMP	180	Pump House	1975	85	474.5	47	262.7	-44.97%
DMIL-ARMY	W-2 WHSE BUILDING	7,680	Warehouse - Unrefrigerated	1924	91	11.8	448	58.4	394.21%
DMIL-ARMY	201- BEECHAM BUILDING	5,095	Hospital	1999	130	25.5	87	17.2	-33.04%
DMIL-ARMY	P1- MAINT BUILDING	1,008	Shop	1991	207	205.5	841	834.1	305.94%

Report on Governor Hogan's Executive Order 01.01.2019.08

DMIL-ARMY	SEC 16 - EST 2000	512	Office	1975	211	412.6	191	373.9	-9.58%
DMIL-ARMY	S-3 MAINT BUILDING	2,356	Repair Services	1924	257	109.2	231	98.0	-10.22%
DMIL-ARMY	Pikesville Armory	96,755	Office	1903	283	2.9	89	0.9	-68.56%
DMIL-ARMY	Catonsville Armory	29,127	Office	1957	338	11.6	465	16.0	37.58%
DMIL-ARMY	DUNDALK OLD FMS	3,739	Shop	1960	356	95.3	387	103.4	8.65%
DMIL-ARMY	DUNDALK NEW FMS	19,230	Shop	2008	535	27.8	485	25.2	-9.30%
DMIL-ARMY	S-5 MAINT BUILDING	2,337	Repair Services	1924	537	230.0	483	206.6	-10.12%
DMIL-ARMY	NCO Building	12,320	Other - Recreation	1903	595	48.3	401	32.5	-32.65%
DMIL-ARMY	ELKTON ARMORY	20,453	Office	2014	615	30.1	12	0.6	-98.05%
DMIL-ARMY	USP&FO Warehouse	1,440	Warehouse - Unrefrigerated	2007	638	443.0	730	506.6	14.44%
DMIL-ARMY	GLEN BURNIE ARMORY	23,179	Office	1950	662	28.6	803	34.7	21.28%
DMIL-ARMY	W-8 WHSE BUILDING	9,600	Warehouse - Unrefrigerated	1924	742	77.3	618	64.4	-16.72%
DMIL-ARMY	QUEEN ANNE ARMORY	17,642	Office	1977	781	44.3	48	2.7	-93.85%
DMIL-ARMY	M1 BUILDING	9,600	Other – Lodging / Residential	1988	801	83.4	599	62.4	-25.23%
DMIL-ARMY	SALISBURY FMS	11,432	Shop	2004	836	73.1	850	74.3	1.71%
DMIL-ARMY	S-2 MAINT BUILDING	19,844	Shop	1924	985	49.7	1057	53.3	7.26%
DMIL-ARMY	HAGERSTOWN ARMORY	30,306	Office	1978	998	32.9	2073	68.4	107.73%
DMIL-ARMY	LAPLATA ARMORY	23,230	Office	2016	1,087	46.8	1076	46.3	-0.98%
DMIL-ARMY	FREDERICK ARMORY	18,630	Office	1978	1,240	66.5	1106	59.4	-10.79%
DMIL-ARMY	SALISBURY ARMORY	33,070	Office	1959	1,460	44.1	1487	45.0	1.86%
DMIL-ARMY	WESTMINSTER ARMORY	17,229	Office	1980	1,527	88.6	1402	81.4	-8.18%
DMIL-ARMY	O-2 ADMIN BUILDING	16,108	Office	1948	1,562	97.0	1598	99.2	2.28%
DMIL-ARMY	ELLCOTT CITY ARMORY	19,356	Office	1953	1,672	86.4	59	3.1	-96.47%

Report on Governor Hogan's Executive Order 01.01.2019.08

DMIL-ARMY	ANNAPOLIS ARMORY	41,473	Office	1959	1,700	41.0	1605	38.7	-5.57%
DMIL-ARMY	WHITE OAK ARMORY	27,078	Office	1972	1,736	64.1	885	32.7	-49.02%
DMIL-ARMY	CADE ARMORY	35,369	Office	1960	2,023	57.2	1758	49.7	-13.09%
DMIL-ARMY	GUNPOWDER-PURNELL ARMORY	31,969	Office	1975	2,201	68.9	1627	50.9	-26.09%
DMIL-ARMY	CUMBERLAND ARMORY	26,332	Office	1960	2,355	89.4	458	17.4	-80.55%
DMIL-ARMY	PARKVILLE ARMORY	39,279	Office	1964	2,358	60.0	2551	65.0	8.17%
DMIL-ARMY	Dundalk Armory	31,022	Fitness Center / Health Club / Gym	1960	3,271	105.4	2937	94.7	-10.20%
DMIL-ARMY	RUHL ARMORY-TOWSON	71,699	Office	1980	3,909	54.5	3328	46.4	-14.86%
DMIL-ARMY	114- ARMORY BUILDING	63,481	Office	1990	7,839	123.5	7314	115.2	-6.69%
DMIL-ARMY	FIFTH REGIMENT ARMORY	322,434	Office	1901	19,418	60.2	11579	35.9	-40.37%
FSU	Intramural Field Restroom	720	Restroom	2012	8	11.7	10	14.6	18.48%
FSU	WFWM RADIO STATION	100	Office	2015	76	764.6	107	1072.2	39.94%
FSU	20 BRADDOCK	1,913	Office	1955	125	65.1	122	63.8	-2.10%
FSU	MIDLOTHIAN ROAD	27,520	Irrigation	2012	1,041	37.8	1144	41.6	9.92%
MAA	801 WILSON-POINT RD	28,404	Hangar	1980	30	1.1	29	1.0	-4.82%
MAA	801 WILSON-POINT RD	68,803	Hangar	1980	35	0.5	31	0.5	-11.47%
MAA	Building 120	2,185	Office	1980	74	34.0	103	46.9	38.74%
MAA	3000 Mathison Way	60,000	Office	1990	79	1.3	73	1.2	-8.18%
MAA	Building 117	8,844	Storage	1980	202	22.8	210	23.7	4.12%
MAA	Building 137	3,880	Shop	1980	207	53.3	191	49.2	-7.56%
MAA	R 7023 Elm Rd Bldg 123, Bay A	1,500	Shop	1980	225	150.2	237	158.1	5.20%
MAA	Building 113	28,400	Storage	1980	236	8.3	257	9.0	8.88%
MAA	Building 158	5,100	Maintenance Shop	1980	358	70.1	817	160.3	128.53%
MAA	Building 119	3,840	Storage	1980	394	102.7	254	66.0	-35.61%
MAA	701 Wilson Point Rd Hangar	12,345	Hangar	2000	933	75.6	920	74.6	-1.41%
MAA	Building 121	8,200	Shop	1980	996	121.5	980	119.5	-1.63%
MAA	701 WILSON-POINT RD	9,181	Hangar	1980	1,049	114.3	726	79.1	-30.82%
MAA	701 Wilson-Point Road - Hangar 6	61,100	Hangar	1980	1,150	18.8	1037	17.0	-9.81%

Report on Governor Hogan's Executive Order 01.01.2019.08

MAA	601 WILSON-POINT RD	74,200	Hangar	1980	1,342	18.1	2879	145.4	114.51%
MAA	7057 Elm Rd Bldg 112	45,000	Office	1980	1,454	32.3	1416	31.5	-2.58%
MAA	701 Wilson-Point Road - Hangar 4	61,800	Hangar	1980	1,568	25.4	1147	18.6	-26.83%
MAA	Building 155	9,504	Office	1980	2,555	268.8	2747	289.1	7.53%
MAA	Building 105	35,000	Fire Station	1980	3,773	107.8	3423	97.8	-9.29%
MAA	601 WILSON-POINT RD	19,800	Hangar	1980	4,057	204.9	1205	16.2	-70.30%
MAA	Building 107	28,000	Storage	1980	4,874	174.1	4132	147.6	-15.23%
MAA	MAC Building 172	172,000	Office	1980	9,527	55.4	9397	54.6	-1.37%
MAA	701 WILSON-POINT RD (Central)	12,900	Hangar	1980	12,586	975.7	11584	898.0	-7.96%
MAA	Building 116 FMX Shop	10,200	Shop	1995	17,979	1762.6	14080	1380.4	-21.69%
MAA	100 Building - BWI Airport	2,129,891	Hangar	1947	501,342	235.4	503049	236.2	0.34%
MDH	Garage	1,400	Repair Services	1996	143	102.2	155	110.5	8.34%
MDH	Employee Dorms	12,092	Residential Care Facility	1958	969	80.2	891	73.7	-8.09%
MDH	Gym	8,305	Gym / Stadium	1986	1,200	144.5	1831	220.4	52.59%
MDH	Office of Chief Medical Examiner	120,000	Laboratory	2010	17,153	142.9	20695	172.5	20.65%
MDH	MDH Eastern Shore Hospital Center	108,000	Residential Care Facility	2001	22,896	212.0	22227	205.8	-2.92%
MDTA	Western Shore Storage Building	2,240	Storage	1905	22	9.6	19	8.6	-12.06%
MDTA	9665 Orland Park Road (Maint. Bldg 1)	3,292	Office	1940	166	50.5	163	49.6	-1.98%
MDTA	Maintenance Building 2	5,234	Office	2019	308	58.8	465	88.9	51.07%
MDTA	7677 LILLIAN HOLT DRIVE	14,406	Office	-	313	21.7	311	21.6	-0.67%
MDTA	OPS Building (2340)	5,736	Office	1905	345	60.1	236	41.1	-31.57%
MDTA	Eastern Shore Storage Building	1,920	Storage	1905	472	245.8	700	364.5	48.31%
MDTA	2330 BROENING HWY	14,015	Office	1905	795	56.7	2003	142.9	152.04%
MDTA	Police & Automotive Building	38,860	Mixed Use Property	1905	2,017	51.9	1788	46.0	-11.33%
MDTA	Headquarters Building (2310)	62,141	Office	1905	4,016	64.6	3483	56.0	-13.26%
MDTA	303 AUTHORITY DR	25,800	Office	-	6,020	233.3	3711	143.8	-38.36%
MDTA	Administration Building (1200 Frankfurst Ave)	32,253	Office	1956	8,641	267.9	11129	345.1	28.79%
MDTA	1700 FRANKFURST AVENUE	7,149	Office	-	15,255	2133.9	16976	2374.5	11.28%

Report on Governor Hogan's Executive Order 01.01.2019.08

MSU	1140 E COLD-SPRING LA	10,269	Storage	1950	26	2.5	247	24.0	868.01%
MSU	2412 President's Residence	4,270	Residence	1963	193	45.2	255	59.6	32.23%
MSU	Lillie Carroll Jackson Museum	5,600	Museum	1900	306	54.7	259	46.3	-15.46%
MSU	Morgan Christian Center	3,883	Office	1942	379	97.7	234	60.4	-38.34%
MSU	Thurgood Marshall D	6,591	Dormitory / Residence Hall	1986	422	64.1	290	44.0	-31.33%
MSU	Thurgood Marshall B	19,774	Dormitory / Residence Hall	1986	941	47.6	394	19.9	-58.11%
MSU	Thurgood Marshall C	19,774	Dormitory / Residence Hall	1986	966	48.9	404	20.4	-58.18%
MSU	Thurgood Marshall A	19,774	Dormitory / Residence Hall	1986	985	49.8	402	20.3	-59.18%
MSU	Estuarine Center (off site)	28,000	Office	1995	1,164	41.6	1737	62.0	49.21%
MSU	4530 Portage Ave	40,856	Office	1983	1,490	36.5	2125	52.0	42.59%
MSU	Turners Armory and Motor Pool	42,626	Office	1951	1,726	40.5	114	2.7	-93.39%
MSU	Business School	138,00 0	Office	2016	18,403	133.4	10891	78.9	-40.82%
MSU	Behavioral & Social Science Center (BSSC)	140,00 0	Office	1980	24,248	173.2	12924	92.3	-46.70%
MSU	1130 E COLD-SPRING LA	6,629	Storage	1950	1.3	0.2	2	0.3	53.85%
MTA	Laurel Station	800	Transportation Terminal / Station	1984	296	370.2	246	307.6	-16.94%
MTA	Bush Bus Division	25,000	Storage	-	594	23.8	434	17.4	-26.98%
MTA	Light Rail Stations Cherry Hill	40,000	Storage	1960	751	18.8	326	8.1	-56.60%
MTA	Light Rail Stations Cherry Hill	10,000	-	-	960	96.0	493	49.3	-48.66%
MTA	Eastern Bus Division Trans Bldg	13,913	Shop	1950	979	70.4	975	70.1	-0.44%
MTA	MTA Police Mt. Hope DR	90,000	Police Station	2011	3,112	34.6	2903	32.3	-6.70%
MTA	Procurement	34,506	Office	2000	3,150	91.3	3438	99.6	9.16%
MTA	Kirk Bus Division	46,239	Shop	2016	11,562	250	12693	274.5	9.78%
MTA	METRO Maintenance Old Court	40,000	Shop	1979	5,569	139.2	4902	122.6	-11.97%
MTA	Cromwell Light Rail Maintenance	56,279	Shop	2000	8,342	148.2	5481	97.4	-34.30%
MTA	MARC Maintenance Facilities Martins	55,000	Maintenance Shop	2006	9,772	177.7	6526	118.7	-33.22%

Report on Governor Hogan's Executive Order 01.01.2019.08

MTA	Light Rail Maintenance North Ave	107,000	Shop	1991	14,807	138.4	12571	117.5	-15.10%
MTA	Northwest Bus Division	264,905	Shop	1974	17,426	65.8	14834	56.0	-14.88%
MTA	5801 WABASH AVE	130,000	Shop	1981	26,020	200.2	24450	188.1	-6.03%
MTA	Bush Bus Division	348,702	Shop	1903	58,402	167.5	66236	190.0	13.41%
MTA	Metro Stations Johns Hopkins	300,000	Transportation Terminal / Station	1992	178,662	595.5	149134	497.1	-16.53%
SHA	Shop - Salisbury Old District Office	1,789	Shop	1984	125	69.8	104	58.1	-16.67%
SHA	Vehicle Calibration Building	7,381	Office	-	573	77.6	750	136.7	30.99%
SHA	Highway Communications Division	5,485	Shop	-	671	122.3	973	131.8	45.06%
SHA	Shop - Denton	34,648	Shop	1984	696	20.1	966	27.9	38.85%
SHA	Shop - Snow Hill	35,375	Shop	1958	699	19.8	20	0.6	-97.14%
SHA	Shop - Cambridge	63,988	Shop	1963	752	11.8	333	5.2	-55.72%
SHA	Shop - Leonardtown	45,891	Shop	1975	1,051	22.9	1209	26.3	15.03%
SHA	Shop - Princess Anne	36,074	Shop	1960	1,191	33.0	754	20.9	-36.68%
SHA	District Office/Shop - Chestertown	54,302	Office	-	1,224	22.5	2689	49.5	119.70%
SHA	Shop - Prince Frederick	32,077	Shop	1968	1,251	39.0	570	17.8	-54.45%
SHA	Shop - Easton	31,100	Shop	1952	1,290	41.5	1981	63.7	53.61%
SHA	District Office - LaVale	18,406	Office	-	1,569	85.3	265	14.4	-83.11%
SHA	Shop - Centerville	44,192	Shop	1963	1,598	36.2	1889	42.7	18.23%
SHA	Shop - Gaithersburg	48,273	Shop	1994	1,736	36.0	1555	32.2	-10.43%
SHA	Shop - Dayton	48,527	Shop	2003	1,907	39.3	1612	33.2	-15.48%
SHA	Shop - Laurel	42,987	Shop	1987	2,085	48.5	3079	71.6	47.70%
SHA	Shop - LaVale	48,582	Shop	-	2,190	45.1	162	3.3	-92.60%
SHA	Shop - Fairlands	45,323	Shop	1998	2,260	49.9	1997	44.1	-11.62%
SHA	Shop - Hagerstown	53,639	Shop	1986	2,276	42.4	1133	21.1	-50.22%
SHA	District Office-PG	41,967	Office	-	2,425	57.8	3100	73.9	27.86%
SHA	Shop - Upper Marlboro	52,763	Shop	1998	2,559	48.5	955	18.1	-62.68%
SHA	Shop - Churchville	45,103	Shop	2000	2,628	58.3	1952	43.3	-25.72%
SHA	Shop - Elkton	50,890	Shop	1987	2,799	55.0	1565	30.8	-44.10%
SHA	Shop - Glen Burnie	52,430	Shop	1979	2,805	53.5	3051	58.2	8.78%
SHA	211 Building	51,312	Office	1963	2,845	55.4	1623	31.6	-42.95%
SHA	Shop - Golden Ring	36,230	Shop	1988	2,949	81.4	2299	63.5	-22.03%

Report on Governor Hogan's Executive Order 01.01.2019.08

SHA	Shop - Owings Mills	49,498	Shop	1985	3,122	63.1	1916	38.7	-38.63%
SHA	Building 1 OOTS 2 & 3	134,954	Office	-	3,137	23.2	2010	14.9	-35.93%
SHA	Shop - Hereford	45,754	Shop	1988	3,340	73.0	4697	102.7	40.64%
SHA	District Office - Frederick	67,621	Office	-	3,379	50.0	1674	24.8	-50.45%
SHA	Shop - LaPlata	48,146	Shop	1985	3,407	70.8	3058	63.5	-10.24%
SHA	Shop - Westminster	47,372	Shop	1986	4,003	84.5	4432	93.6	10.73%
SHA	District Office - Salisbury	52,568	Office	-	4,586	87.2	2711	51.6	-40.88%
SHA	District Office - Warren Road	19,003	Office	-	4,611	242.6	4082	214.8	-11.46%
SHA	Building 1 SOC & OOM	51,998	Office	-	4,761	91.6	2856	54.9	-40.02%
SHA	Shop - Keyzers Ridge	94,061	Shop	1983	4,890	52.0	2684	28.5	-45.11%
SHA	District office/shop - Annapolis	47,777	Office	-	5,557	116.3	5470	114.5	-1.56%
SHA	Building 4 & Vehicle Calibration	105,798	Office	-	10,169	96.1	7106	67.2	-30.12%
SHA	Building 4	98,417	Office	-	10,983	111.6	10779	109.5	-1.85%
SHA	Buildings 1-3	185,893	Office	-	14,066	75.7	10052	54.1	-28.54%
SHA	707 Building	199,145	Office	-	15,033	75.5	14265	71.6	-5.11%
SU	1206 A Camden Ave. C-3	625	Office	1950	19	30.7	25	39.6	30.24%
SU	1100 Camden Ave. Center for Conflict Resolution	2,917	Office	1934	33	11.4	141	48.2	324.35%
SU	305 College Ave. Environmental Studies	2,000	Office	1947	37	18.6	42	21.2	12.93%
SU	1214 Camden Ave. University Analysis House	3,085	Office	1937	41	13.3	127	41.0	209.20%
SU	1504 S. Salisbury Blvd	3,000	Storage	1970	47	15.8	6	2.0	-87.34%
SU	1106 Camden Ave. International Faculty House	2,368	Office	1940	48	20.4	104	43.8	115.24%
SU	Tower Shelter	212	Antenna / Communication	2014	49	229.5	45	212.3	-7.51%
SU	303 College Ave. Student Arts	2,457	Office	1942	52	21.0	60	24.2	16.12%
SU	1013 Camden Ave. Philosophy House	3,340	Office	1928	54	16.3	111	33.2	103.89%
SU	1206 Camden Ave. C-2	2,620	Office	1950	61	23.1	61	23.5	0.77%
SU	215 Milford St. M-2	10,900	Storage	1980	69	6.4	332	30.5	378.60%
SU	103 Power St. Grounds Storage	3,675	Storage	1999	74	20.2	50	13.6	-32.59%

Report on Governor Hogan's Executive Order 01.01.2019.08

SU	Nanticoke River Center	7,082	Other - Education	2006	76	10.8	67	9.4	-12.32%
SU	406 Loblolly Lane Carriage House	1,409	Residence	1930	91	64.3	73	52.1	-19.47%
SU	1108 Camden Ave. C-1	2,432	Office	1940	95	39.0	87	36.0	-8.34%
SU	DOGWOOD VILLAGE K	1,792	Dormitory / Residence Hall	1985	102	56.9	79	43.9	-22.56%
SU	ATHLETIC TEAM BUILDING-SOCCER	2,573	Other	2012	104	40.6	135	52.3	29.24%
SU	DOGWOOD VILLAGE L	1,792	Dormitory / Residence Hall	1985	105	58.5	66	36.9	-37.02%
SU	DOGWOOD VILLAGE O	1,792	Dormitory / Residence Hall	1985	106	59.1	68	37.9	-35.83%
SU	DOGWOOD VILLAGE M	1,792	Dormitory / Residence Hall	1985	112	62.8	79	43.9	-29.76%
SU	1220 S. Division D-1	1,535	Office	1950	113	73.4	59	38.5	-47.61%
SU	DOGWOOD VILLAGE N	1,792	Dormitory / Residence Hall	1985	115	64.0	68	38.2	-40.70%
SU	1212 Camden Ave. Camden House	2,680	Office	1940	120	44.8	161	60.1	34.19%
SU	DOGWOOD VILLAGE H	1,792	Dormitory / Residence Hall	1985	124	69.2	74	41.4	-40.29%
SU	DOGWOOD VILLAGE B	1,792	Dormitory / Residence Hall	1985	124	69.2	69	38.5	-44.33%
SU	1308 Camden Ave. Foundation Center	5,468	Office	1925	125	22.9	204	37.3	62.68%
SU	DOGWOOD VILLAGE F	1,792	Dormitory / Residence Hall	1985	129	71.9	83	46.6	-35.55%
SU	DOGWOOD VILLAGE C	1,792	Dormitory / Residence Hall	1985	131	73.1	80	44.8	-38.89%
SU	DOGWOOD VILLAGE G	1,792	Dormitory / Residence Hall	1985	131	73.3	70	39.1	-46.70%
SU	1015 CAMDEN AVE, SALISBURY	2,559	Office	1943	145	56.8	146	57.2	0.53%
SU	DOGWOOD VILLAGE E	1,792	Dormitory / Residence Hall	1985	147	82.1	58	32.4	-60.59%
SU	DOGWOOD VILLAGE D	1,792	Dormitory / Residence Hall	1985	148	82.4	68	37.9	-53.92%
SU	DOGWOOD VILLAGE J	1,792	Dormitory / Residence Hall	1985	150	83.7	71	39.6	-52.64%
SU	1122 Camden Ave. Honors House	3,946	Office	1956	154	38.9	122	30.9	-20.56%
SU	DOGWOOD VILLAGE A	1,792	Dormitory / Residence Hall	1985	154	85.7	73	40.6	-52.47%

Report on Governor Hogan's Executive Order 01.01.2019.08

SU	106 Pine Bluff P-1	5,832	College / University	1950	244	41.8	176	30.2	-27.80%
SU	DOGWOOD VILLAGE SUPPORT BUILDING	1,792	Dormitory / Residence Hall	1985	252	140.5	180	100.7	-28.53%
SU	1200 Camden Ave. Admissions House	7,700	Office	1930	319	41.5	313	40.6	-1.99%
SU	Outdoor Tennis Center	2,578	Outdoor Recreation	2016	336	130.5	210	81.6	-37.59%
SU	1204 Camden Ave. Scarborough Hall	8,400	Office	2001	383	45.6	373	44.4	-2.52%
SU	1120 Camden Ave Alumni House	7,818	Office	1996	388	49.7	272	34.8	-29.96%
SU	205 Milford St. Indoor Tennis Center	20,000	Other - Recreation	1975	469	23.4	136	6.8	-70.99%
SU	119 Bateman St Support Services	15,200	Warehouse - Unrefrigerated	1960	531	34.9	575	37.8	8.37%
SU	125 Bateman Street IT Building	14,477	Office	1950	666	46.0	467	32.3	-29.86%
SU	201 Milford St. University Fitness	15,034	Fitness Center / Health Club / Gym	1978	701	46.6	464	30.9	-33.82%
SU	1221 Wayne St. Green House & Grounds Office	5,768	Other	1994	1,012	175.5	1002	173.8	-1.03%
SU	East Campus Complex	30,695	College / University	1989	1,386	45.1	1409	45.9	1.67%
SU	1123 S Division Street - Maint Bldg	36,000	Other - Services	2006	1,823	50.6	1618	44.9	-11.24%
SU	Sea Gull Stadium	28,000	Stadium (Open)	2016	2,121	75.7	1476	52.7	-30.40%
SU	1306 S. Salis. Blvd (Sea Gull Squ.)	232,000	Dormitory / Residence Hall	2011	8,652	37.3	9409	40.6	8.75%
TU	AUBURN HOUSE-AH	11,600	-	1900	756	65.2	699	60.3	-7.60%
TU	CHILD CARE CENTER - CC	11,800	Pre-School / Daycare	2007	1,362	115.4	1190	100.8	-12.60%
TU	7400 York Road - Y2	41,200	Office	2009	2,080	50.5	1855	45.0	-10.81%
TU	BARTON-BA	73,696	Dormitory / Residence Hall	2011	4,387	59.5	3514	47.7	-19.89%
TU	FREDERICK DOUGLASS HOUSE	85,540	Dormitory / Residence Hall	2011	4,912	57.4	3716	43.4	-24.35%
TU	CARROLLHALL-CH	170,504	Dormitory / Residence Hall	2016	7,850	46.0	7036	41.3	-10.37%
TU	MARSHALLHALL	156,594	Dormitory	2001	8,232	52.6	6194	39.6	-24.76%
TU	ADMINISTRATION BLDG (7720)-AD	119,467	Office	1957	10,224	85.6	8388	70.2	-17.96%

Report on Governor Hogan's Executive Order 01.01.2019.08

TU	BURKSHIRE - TU MARRIOT- TM	311,209	Dormitory / Residence Hall	1989	19,552	62.8	12367	39.7	-36.75%
UMB	INFO BLDG 100 N. GREENE ST	32,683	Office	1895	0	0.0	0	0.0	10.30%
UMB	300 RUSSELL ST, 600 WASH BLVD PS	4,132	Office	1900	11	2.7	6	1.6	-42.53%
UMB	601 W. Lexington	8,835	Office	2000	41	4.7	22	2.5	-47.84%
UMB	300 RUSSELL ST 600 WASH BLVD 2ND FL	4,132	Office	1900	72	17.3	32	7.8	-55.20%
UMB	300 RUSSELL ST 600 WASH BLVD 1ST FL	4,132	Office	1900	97	23.5	81	19.6	-16.64%
UMB	300 RUSSELL ST 600 WASH BLVD 3RD FL	4,132	Office	1900	103	24.9	61	14.7	-41.09%
UMB	School of Social Work Administration Office	3,779	Office	2000	809	214.0	471	124.6	-41.76%
UMB	Pine Street Station - 212 N Pine St	9,028	Police Station	1877	1,044	115.7	1050	116.3	0.57%
UMB	Maryland Bar Center (MBC)	30,572	Administration	1930	2,833	92.7	1867	61.1	-34.10%
UMB	General Research Building	38,147	Laboratory	1967	9,517	249.5	8335	218.5	-12.42%
UMB	Walterhoffer	14,700	Vacant	2000	13	0.9	11	0.8	-8.88%
UMBC	Guard Station	50	Other	2000	20	394.2	1	20	-94.93%
UMBC	Radio Tower & 4 Ancillary Bldgs	1,300	Antenna / Communication	2017	27	20.5	27	20.8	1.48%
UMBC	HazMat Storage	300	Storage	2009	60	200.5	56	186.7	-6.91%
UMBC	Plasma Spray Bldg	2,467	Laboratory	1980	120	48.8	56	22.7	-53.50%
UMBC	Army ROTC	4,245	College / University	1986	140	33.0	122	28.7	-12.98%
UMBC	Naval ROTC	4,632	College / University	1963	156	33.6	158	34.1	1.42%
UMBC	Tech 2 Bldg	4,256	Office	1992	286	67.3	260	61.1	-9.24%
UMBC	Alumni House	7,615	Office	1970	360	47.3	267	35.1	-25.92%
UMBC	Professional Studies Bldg & Shed	8,216	Adult Education	1980	614	74.8	534	65.0	-13.10%
UMBC	Clean Energy Technology Incubator (CETI)	22,767	Laboratory	1980	2,668	117.2	3867	169.9	44.95%
UMBC	Chiller Plant	3,129	Energy / Power Station	1980	4,125	1318.2	4419	1412. 3	7.13%
UMBC	Technology Research Center (TRC)	77,029	Laboratory	1958	12,490	162.1	11903	154.5	-4.70%
UMBC	Technology Center	134,197	Laboratory	1980	18,875	140.6	18428	137.3	-2.37%

Report on Governor Hogan's Executive Order 01.01.2019.08

UMBC	Columbus Center	263,937	Office	1995	58,326	221.0	63757	241.6	9.31%
UMCP	007-Pocomoke Building	30,046	Police Station	1946	3,581	119.2	3519	117.1	-1.73%
UMCP	164-University House	15,133	College / University	2012	559	36.9	557	36.8	-0.36%
UMCP	170-Alpha Delta Pi Sorority (4535 College Ave)	10,459	College / University	1959	1,472	140.7	1045	99.9	-29.01%
UMCP	171-Phi Sigma Sorority (4531 College Ave)	10,445	College / University	1960	1,009	96.6	860	82.3	-14.77%
UMCP	172-Alpha Chi Omega Sorority (4525 College Ave)	11,712	College / University	1960	1,691	144.4	1327	113.3	-21.53%
UMCP	173-Delta Phi Epsilon Sorority (4514 Knox Rd)	10,273	College / University	1964	1,264	123.0	970	94.4	-23.26%
UMCP	174-Sigma Delta Tau Sorority (4516 Knox Rd)	10,372	College / University	1963	1,409	135.8	1439	138.7	2.13%
UMCP	175-Delta Gamma Sorority (4518 Knox Rd)	11,662	College / University	1963	1,387	118.9	936	80.3	-32.52%
UMCP	176-Alpha Phi Sorority (7402 Princeton Ave)	11,833	College / University	1964	1,286	108.7	1058	89.4	-17.73%
UMCP	199-MFRI Office/Classroom Building	45,973	College / University	1955	16,535	359.7	5600	121.8	-66.13%
UMCP	221-Astronomical Observatory	1,643	Other – Technology / Science	1964	149	90.7	143	87.0	-4.03%
UMCP	309-Indoor Practice Facility	20,963	Fitness Center / Health Club / Gym	2001	139	6.6	187	8.9	34.53%
UMCP	395-Turfgrass Research Facility (Paint Branch)	4,500	Laboratory	1999	696	154.7	726	161.3	4.31%
UMCP	795-Avrum Gudelsky Veterinary Center	85,716	College / University	1989	29,210	340.8	30180	352.1	3.32%
UMCP	800-4-H Headquarters	6,155	College / University	1989	702	114.1	550	89.4	-21.65%
UMCP	803-Adelphi Road Office Annex (8701 Adelphi Rd)	4,818	Office	1956	17	3.5	25	5.2	47.06%
UMCP	804-Cooperative Exten. Svc Annex (Riverdale)	35,293	Office	-	2,389	67.7	2085	59.1	-12.72%
UMCP	805-Patapsco Building	53,964	Unknown	1969	5,973	110.7	2	0.0	-99.97%
UMCP	806-Technology Ventures Building	52,816	College / University	1960	4,953	93.8	4352	82.4	-12.13%
UMCP	809-Litton 3 (5000 51st Avenue)	9,763	Police Services	1984	2,320	237.6	846	86.7	-63.53%

Report on Governor Hogan’s Executive Order 01.01.2019.08

UMCP	810-Severn Building	310,865	College / University	1998	46,497	149.6	45642	146.8	-1.84%
UMCP	812-Seneca Building	40,770	College / University	1991	4,670	114.5	3850	94.4	-17.56%
UMCP	821-MFRI Structural Firefighting Building (LaPlata)	9,801	Fire Station / College / University	2001	1,094	111.6	765	78.1	-30.07%
UMCP	826-MFRI Office/Classroom Building (Lower E. Shore)	6,888	College / University	1994	297	43.1	199	28.9	-33.00%
UMCP	827-MFRI Structural Firefighting Bldg (Lower E. Shore)	2,329	Fire Station / College / University	1995	122	52.4	111	47.7	-9.02%
UMCP	832-MFRI (Northeast)	9,801	Unknown	2011	714	72.8	722	73.7	1.12%
UMCP	842-MFRI Office/Classroom Building (W. Md)	5,736	College / University	1994	251	43.8	406	70.8	61.75%
UMCP	846-MFRI Structural Firefighting Bldg (Upper E. Shore)	2,329	Fire Station / College / University	2002	597	256.3	549	235.7	-8.04%
UMCP	CNS (Journalism)	1,003	College / University	-	28	27.9	15	15.0	-46.43%
UMCP	LEAF House	4,500	Other-Technology / Science	2007	30	6.7	35	7.8	16.67%
UMES	1 TOM NICHOLS RD 11850, TOM NICHOLS ROAD	940	College / University	1961	13	14.0	14	14.9	6.23%
UMES	2 IRRIGATION PUMP, BACKBONE ROAD	2,200	College / University	2004	15	6.9	20	9.2	31.07%
UMES	HAWKS LANDING 1322, WILLIAM P HYTCHE	1,006	Other – Lodging / Residential	2001	23	23.2	14	14.3	-40.07%
UMES	HAWKS LANDING 1522, WILLIAM P HYTCHE BLVD	1,006	Other – Lodging / Residential	2001	24	23.6	20	19.8	-15.90%
UMES	HAWKS LANDING 1414, WILLIAM P HYTCHE BLVD	1,006	Other – Lodging / Residential	2001	28	27.4	32	31.6	16.19%
UMES	HAWKS LANDING 1132, WILLIAM P HYTCHE	1,006	Other – Lodging / Residential	2001	28	27.4	24	23.7	-13.01%
UMES	HAWKS LANDING 1411, WILLIAM P HYTCHE BLVD	1,006	Other – Lodging / Residential	2001	28	28.0	35	34.6	24.47%
UMES	HAWKS LANDING 1433, WILLIAM P HYTCHE BLVD	1,006	Other – Lodging / Residential	2001	29	28.6	23	23.0	-19.95%

Report on Governor Hogan’s Executive Order 01.01.2019.08

UMES	HAWKS LANDING 1223, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	30	30.1	35	35.0	15.46%
UMES	HAWKS LANDING 1131, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	30	30.2	37	37.1	21.92%
UMES	HAWKS LANDING 1423, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	31	30.5	22	21.7	-28.39%
UMES	HAWKS LANDING 1231, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	31	31.0	28	27.6	-10.09%
UMES	HAWKS LANDING 1112, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	32	31.9	43	43.1	34.16%
UMES	HAWKS LANDING 1121, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	33	32.4	10	9.9	-69.35%
UMES	HAWKS LANDING 1211, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	33	32.8	19	18.6	-42.37%
UMES	HAWKS LANDING 1421, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	33	32.9	20	19.7	-39.55%
UMES	HAWKS LANDING 1432, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	33	33.1	20	20.4	-39.91%
UMES	HAWKS LANDING 1224, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	33	33.2	33	33.3	-1.18%
UMES	HAWKS LANDING 1531, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	35	34.6	28	28.1	-19.46%
UMES	HAWKS LANDING 1424, WILLIAM HYCHE BLVD	1,006	Other – Lodging / Residential	2001	35	34.8	23	23.3	-34.32%
UMES	HAWKS LANDING 1412, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	35	34.8	33	32.5	-5.82%
UMES	HAWKS LANDING 1313, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	36	35.4	45	44.2	26.23%
UMES	HAWKS LANDING 1434, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	36	35.9	41	40.6	13.44%
UMES	HAWKS LANDING 1324, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	36	36.2	25	25.2	-31.29%
UMES	HAWKS LANDING 1323, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	37	36.5	34	33.6	-7.51%
UMES	HAWKS LANDING 1222, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	38	37.7	21	21.0	-44.63%
UMES	HAWKS LANDING 1431, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	38	37.8	46	46.2	21.09%

Report on Governor Hogan's Executive Order 01.01.2019.08

UMES	HAWKS LANDING 1532, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	38	38.1	37	36.5	-3.48%
UMES	HAWKS LANDING 1233, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	41	40.3	27	26.7	-33.47%
UMES	HAWKS LANDING 1331, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	42	41.4	30	29.4	-27.90%
UMES	HAWKS LANDING 1334, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	42	42.0	28	27.6	-33.79%
UMES	HAWKS LANDING 1333, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	42	42.2	30	30.1	-29.30%
UMES	HAWKS LANDING 1422, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	42	42.2	17	17.0	-59.94%
UMES	HAWKS LANDING 1332, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	43	42.3	37	36.4	-13.11%
UMES	HAWKS LANDING 1321, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	43	43.1	36	36.2	-16.89%
UMES	HAWKS LANDING 1511, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	43	43.1	43	42.3	-0.88%
UMES	HAWKS LANDING 1512, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	45	44.3	35	35.3	-21.47%
UMES	HAWKS LANDING 1232, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	45	45.2	29	28.8	-36.25%
UMES	HAWKS LANDING 1234, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	46	45.3	30	29.4	-34.17%
UMES	HAWKS LANDING 1221, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	47	46.4	35	34.5	-24.96%
UMES	HAWKS LANDING 1122, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	49	49.0	26	26.0	-47.26%
UMES	HAWKS LANDING 1312, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	51	50.9	42	41.6	-17.97%
UMES	HAWKS LANDING 1212, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	54	54.1	38	37.3	-30.23%
UMES	HAWKS LANDING 1413, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	59	58.7	49	48.5	-17.06%
UMES	2 TOM NICHOLS ROAD 11850, TOM NICHOLS ROAD	14,033	College / University	1961	90	6.4	16	1.1	-82.13%

Report on Governor Hogan's Executive Order 01.01.2019.08

UMES	HAWKS LANDING 1000, WILLIAM P HYCHE	1,006	Other – Lodging / Residential	2001	134	132.9	125	124.1	-6.54%
UMES	HAWKS LANDING 1314, WILLIAM P HYCHE BLVD	1,006	Other – Lodging / Residential	2001	207	206.1	164	163.4	-20.91%
UMES	Coastal Ecology	11,000	College / University	2005	1,000	90.9	485	44.1	-51.49%