Salisbury University

CLIMATE ACTION PLAN

2021

BACKGROUND

The Maryland Commission on Climate Change has warned: "With 3,100 miles of tidal shoreline, much of which includes sensitive ecosystems, Maryland is disproportionately vulnerable to sea-level rise, one of the major consequences of climate change." Heat waves, severe weather events and episodic droughts are other scenarios if greenhouse gas emissions remain unchecked. Climate change poses a threat to human health, infrastructure, utilities and natural resources.

Following more than a year of collaboration through information gathering, trend analysis and focus group discussions with faculty, staff, students and community constituents, Salisbury University has developed five goals in the 2020-2025 Strategic Plan. One of these goals is to "Enhance Environmental, Social and Economic Sustainability."

As a regional comprehensive University, SU's mission emphasizes and supports how we can contribute to the sustainability of the local Eastern Shore community. To advance our mission and values, the University continues to be dedicated to educating students to be strong, thoughtful, resilient and responsible contributors to society. SU is not only committed to preparing students to address the most pressing issues of our time, locally and globally, but also to ensuring the advancement of efforts to support future generations. Sustainability, as defined by the United Nation's World Commission on Environment and Development, is "development that meets the needs of the present without compromising the ability of future generation to meet their own needs."[1] Sustainable practices are those which support environmental, social and economic health and vitality.

The University's commitment to environmental, social and economic sustainability is demonstrated through several undergraduate and graduate programs. Interdisciplinary programs and courses offer students the opportunity to understand and participate in creating an evolving and responsive society. By supporting the local community and ensuring its health and vitality, we encourage social adaptability and the well-being of future generations. In addition, SU is uniquely situated within a coastal environment located in a small but vital metropolitan area, providing the University with multiple opportunities for the University to be a leader in environmental outreach, education and applied research. Similarly, the University will strive to model best practices to conserve natural resources and increase environmental awareness within the local community. As SU approaches its 100-year anniversary, we are committed to tackle the challenges that lie ahead of us and to face regional sustainability challenges with leadership and resiliency.

The objectives and strategies enumerated in the Strategic Plan, as outlined below, are incorporated in this Climate Action Plan to inform our decisions and guide our policy making.

[1] United Nations World Commission on Environment and Development, ed. *Report of the World Commission on Environment and Development: Our Common Future.* Oxford: Oxford University Press, 1987.

Objective: Serve as a leader in our region in providing educational opportunities that enhance social, environmental and economic sustainability.

Strategies:

- Identify and promote current undergraduate and graduate academic programs that could serve as signature programs supporting economic, social and environmental sustainability.
- Explore opportunities for new academic programs in sustainability where there is a need and interest exists.
- Inventory and promote sustainability courses and programming offered by SU both on and off campus.
- Support research on regional environmental sustainability practices and values.

Objective: Aspire to lead local environmental sustainability initiatives and communicate those efforts to internal and external constituents.

Strategies:

- Expand staffing for environmental sustainability and resiliency efforts in response to identified needs and develop a task force to assist with these efforts.
- Establish goals, policies and protocols that increase environmental sustainability and conservation efforts and training across the University, including construction and renovation of buildings, grounds keeping, dining, purchasing, waste management, transportation and others.
- Continue to support student and faculty-led sustainability projects and hands-on learning through initiatives like the Green Fund, seed monies or matching funds, and others.
- Increase local environmental sustainability and conservation efforts and training.
- Develop a climate resiliency plan.
- Deepen partnerships with local groups and municipalities focused on environmental sustainability and conservation efforts.

Eco-friendly is not a new concept at Salisbury University. In the 1920s, the campus celebrated its first Arbor Day by planting Holloway Hall's notable linden trees. Today, the University Arboretum holds some of the most horticulturally diverse grounds in the local region.

Objective: Emphasize social sustainability at SU by promoting a resilient community.

Strategies:

- Continue supporting initiatives like Food for the Flock that promote food justice and other types of well-being for our students.
- Improve equality of opportunity and equitable outcomes at SU using the strategies outlined in Strategic Plan Goal 2: Inspire a Campus Culture of Inclusive Excellence, Support, and Collaboration and Strategic Plan Goal 3: Support Access, Affordability and Academic Excellence.
- Review and expand University-wide risk management and safety practices.
- Continue to clarify University policies and practices and expectations to meet requirements of federal, state, USM, National Collegiate Athletic Association (NCAA) and other sanctioned or accrediting bodies.
- Complete the revision of the University Policies website and finalize the adoption of a new policy development and approval process.
- Continue to build on SU's tradition of shared governance as an effective management model based on transparency and a mutual regard.
- Continue monitoring of compliance and reporting requirements to ensure good standing across many University functions and activities.
- Complete review and revision of Faculty Handbook and transition to digital platform.

Objective: Promote economic sustainability by expanding effectiveness and efficiency practices and promoting a transparent process for strategic planning and budgeting.

Strategies:

- Evaluate and ensure the linkage of unit-level strategic plans to the University Strategic Plan.
- Explore ways to integrate the University's Strategic Plan goals into the performance management process (PMP) and the institutional academic and administrative review process.
- Set and communicate institutional priorities with respect to the University's Strategic Plan, including budget allocations necessary to achieve them.
- Evaluate our current administrative and financial structures and find opportunities for improved efficiency, such as centralizing or streamlining similar organizational functions, sharing services, and implementing other initiatives to ensure responsible spending and improve our stewardship of fiscal resources.
- Continue to emphasize shared governance to promote transparency in the budgeting and decision-making process, and implement ways to make communication between all stakeholders and groups within the SU community more efficient and effective.
- Investigate responsible and sustainable investing opportunities for University and University-related funds.

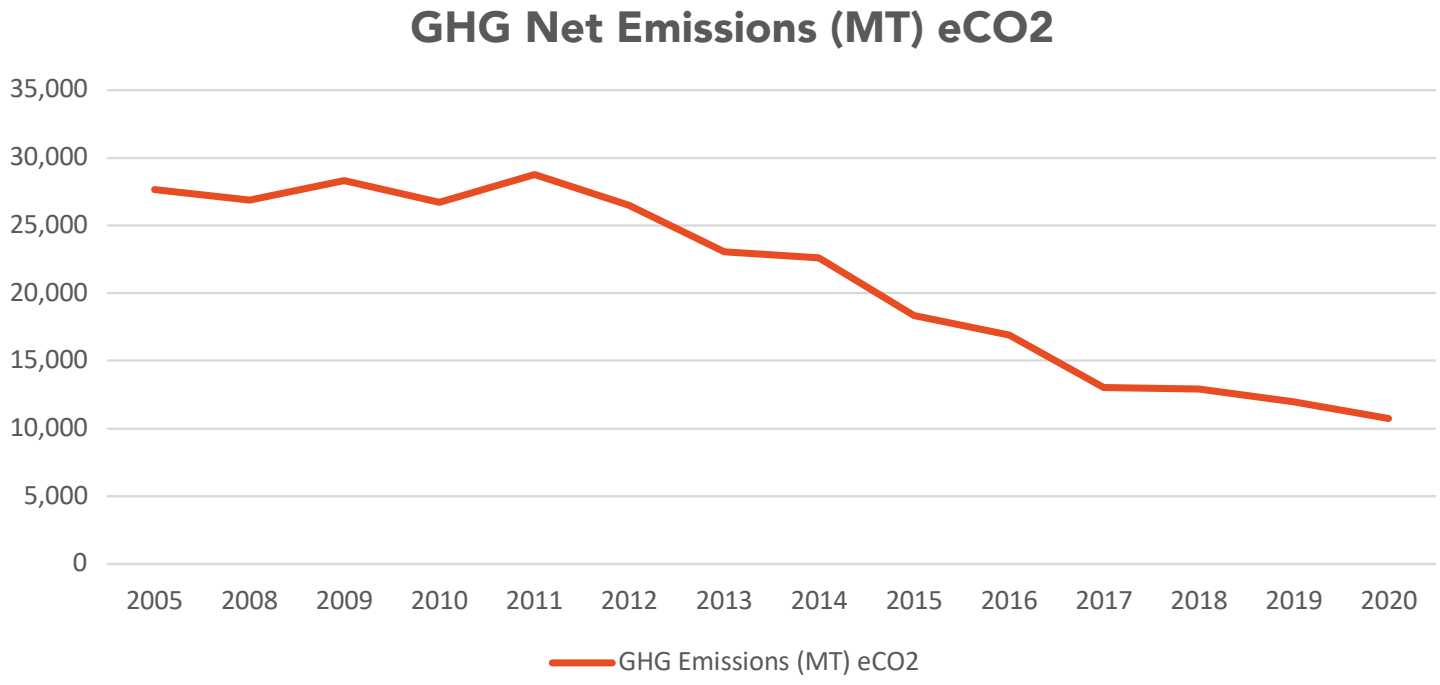
GREENHOUSE GAS EMISSIONS

In 2007, Salisbury University signed the American College and University Presidents' Climate Commitment, a pledge made by a coalition of leaders from colleges and universities across the country, all concerned about the impact of global warming and dedicated to reducing greenhouse gas emissions from their institutions. From the President's Climate Commitment, the Salisbury University Climate Action Plan (CAP) was established in 2010 and later updated in 2014. The plan is intended to serve as a roadmap to carbon neutrality by the year 2050. Carbon neutrality is the act of reducing greenhouse gas emissions to the greatest extent possible and offsetting any remaining emissions such that the net emissions to the atmosphere are zero. Emission data from Fiscal Year (FY) 2005 was selected as the baseline from which progress toward carbon neutrality would be measured, and the following emission reduction milestones were established:

Reduction Goal	Target Year
15%	2012
25%	2015
30%	2020
50%	2025
100%	2050

In the ensuing years, Salisbury University methodically tracked and cataloged its greenhouse gas emissions. As the following chart reveals, in 2015 we surpassed our previously established goal of 25% reduction in carbon emissions for the year. In 2017, we reached 50% reduction in annual GHG emissions, which was previously established as the 2025 milestone. Likewise, we surpassed our goal for 2020, doubling our reduction milestone to a total to 60% below baseline emissions.

Fiscal Year	GHG Emissions (MT)	Baseline Change (MT) Measurement	Percent Change	FTES	Total Building Sq. ft.
2005	27,638.7	N/A	N/A	6,277	1,444,989
2008	26,903.4	-735.3	-2.66%	7,074	1,626,800
2009	28,320.5	+681.8	+2.47%	7,219	1,626,800
2010	26,702.1	-936.6	-3.39%	7,747	1,871,731
2011	28,770.2	+1,131.5	+4.09%	7,716	1,889,463
2012	26,489.3	-1,149.4	-4.16%	7,881	2,206,748
2013	23,067.7	-4,571.0	-16.54%	7,861	2,206,748
2014	22,588.7	-5,050.0	-18.27%	7,879	2,209,921
2015	18,374.4	-9,264.3	-33.52%	7,855	2,132,758
2016	16,901.0	-10,737.7	-38.85%	8,105	2,165,805
2017	13,019.0	-14,619.7	-52.89%	8,027	2,425,020
2018	12,896.4	-14,742.3	-53.34%	8,062	2,425,020
2019	11,951.7	-15,687.0	-56.76%	7,728	2,436,358
2020	10,739.4	-16,899.3	-61.14%	7,508	2,481,192



CLIMATE ACTION PLAN ACCOMPLISHMENTS

Salisbury University's progress is most impressive when considering that this reduction coincided with an increase in campus population and infrastructure. A normalized comparison to the 2005 baseline reveals that emissions have reduced over 76% per 1,000 sq. ft. of building space and over 66% per full time equivalent (FTE) student. Our success is a result of a university-wide, collaborative effort to tackle this challenge.

Some of the initiatives and projects that have contributed to our progress are highlighted below:

- **Guerrieri Academic Commons –** The building was designed and constructed in accordance with LEED Gold certification standards, as set forth by the United States Green Building Council. The vegetated "green" roof contains several species of native sedum, increasing storm water management as well as providing habit and forage for beneficial insects. The site is further enhanced with bio-retention areas planted with native plants to hold and qualitatively treat storm water, thus preventing run-off to local streams and ponds.

- **Sea Gull Stadium –** This LEED Silver certified building incorporates a high-efficiency building envelope, high-performance mechanical systems and 100% storm water retention.

- **Nanticoke River Center –** Situated adjacent to the Nanticoke River, this property provides a place for experiential learning for environmental science and biology students. It features an outdoor classroom, dock, nature trail and science laboratory. The building was constructed with a high percentage of reclaimed materials and also incorporates roof-mounted PV solar, a geothermal heat pump and a composting toilet.

- **Solar Photovoltaic Parking Canopy –** The 541.8 kW DC carport generates 765,000 kilowatt hours annually and includes five electric vehicle charging stations. Avoided carbon dioxide emissions translate to approximately 509 acres of trees planted or 261 metric tons of unconsumed coal.

- **Bee Campus USA –** SU was certified through the Bee Campus USA program for our commitment to create sustainable habitats for pollinators. Our commitment includes the creation of a committee to oversee the institution's pollinator conservation and education efforts, development of a campus pollinator habitat plan, as well as awareness and education initiatives.

- **Bicycle Friendly University –** In 2018, Salisbury University was named a bronze level Bicycle Friendly University through the League of American Bicyclists. We are committed to promoting and providing a more bikeable campus through continual evaluation and improvement of engineering, education, encouragement, enforcement, evaluation and planning.

- **Energy Efficiency Building Audits –** In 2019, SU contracted with a company to perform energy efficiency audits on a number of campus buildings. From this audit, a list of recommended projects will be created to guide for future projects.

- **LED Lighting Upgrades –** Since 2014, the University's energy efficient lighting upgrades have resulted in a combined annual reduction of 1,040,911 kWh in electricity consumption.

- **Mechanical/HVAC Upgrades –** Mechanical and HVAC equipment upgrades since 2014 have resulted in annual reductions totaling 921,768 kWh of electricity, 2,647 CCF of natural gas and 400 gallons of heating oil.

- **Laboratory Fume Hoods –** Upgrades to the ventilation controls of the Henson Science Hall fume hoods allow for both greater reliability and energy efficiency, as well as improved indoor air quality.

- **Green Fund –** The unique program, designed to improve environmental sustainability at SU by giving students a say in how their sustainability fees are spent, has reached an annual funding level of $190,000. Past projects include efficient lighting upgrades, native and pollinator friendly plantings, renewable energy demonstration equipment, educational initiatives, and research projects.

- **Food for the Flock Food Pantry –** In 2018, the University opened an on-campus food pantry to assist students facing homelessness and food insecurity.

LETTER FROM THE PRESIDENT

This Climate Action Plan provides a detailed look at the steps we have taken toward being a better steward of the environment. It also provides an opportunity to get a better understanding of Salisbury University's plans to increase our own efforts as well as our education on how we go about creating a more sustainable future. Our planet is a sacred asset, and we have a responsibility to do our part to protect it for future generations. As an institution of higher education, we are in a unique position to model these behaviors in our own activities, teach them to our students and share them with our community. As president of Salisbury University, I am committed to continue to work with our students, faculty, staff and friends to champion environmental stewardship and to devote the resources necessary to demonstrate that these efforts are an institutional priority.

Charles A. Wight
President, Salisbury University

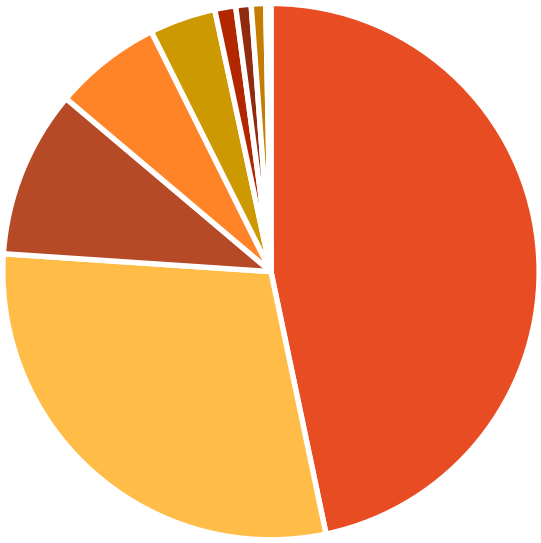
GREENHOUSE GAS REDUCTION GOALS

To continue our progress, we must now examine each specific emissions source and develop tailored approaches to arrive at a net of zero. This will not be easy, and it will not be without financial costs. We have already picked most of the low hanging fruit; in other words, the easiest projects with the lowest costs have already been completed.

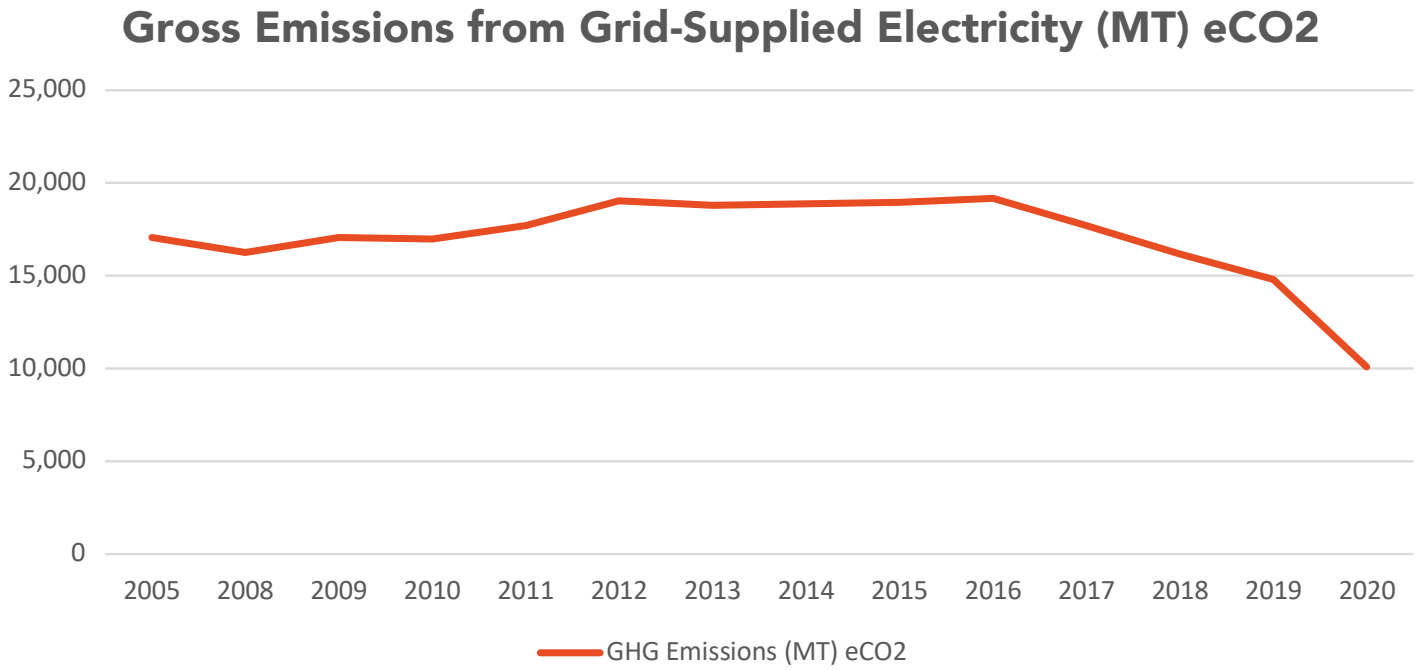
The University's total greenhouse gas emissions for FY2020 are derived from the following sources:

Emission Source	Net eCO2 Emissions (MT)
Grid-Supplied Electricity	5,016
Natural Gas	3,152.9
Student Commuters	1,084.9
Faculty/Staff Commuters	695.8
University Fleet	428.4
Fuel Oil	135.5
Solid Waste	99.46
Air Travel	93.4
Refrigerants and Chemicals	33.31
Total from All Sources	**10,739.37**

Net eCO2 Emissions (MT)



GOAL 1: Reduce Emissions from Electricity



Our gross emissions from grid-supplied electricity (before factoring in renewable energy credits, off-sets, etc.) remained relatively consistent between 2005 and 2018. In 2019, we recorded a 13.3% decrease below the 2005 baseline. This improvement is attributable to learned efficiencies of operating Guerrieri Academic Commons mechanical systems and Holloway Hall chilled water plant, as well as continued migration to LED lighting and equipment change outs such as chiller replacement at the Commons dining hall and Holloway Hall Copy Center HVAC upgrades. Lastly, energy produced by the Parking Lot H solar PV system played a role in our decreased use of grid supplied electricity.

In 2020, the University emitted a gross total of 10,083 MT of eCO2 from grid-supplied electricity, which is a 40.9% reduction below the baseline. This reduction is attributed to the reduction in campus operations during the COVID-19 pandemic and is expected to return to pre-pandemic levels in 2021.

Through renewable energy credits, Salisbury University offset about one half of its grid-supplied electricity emissions in 2020. Even with these off-sets, over 46% of the University's total net greenhouse gas emissions come from grid-supplied electricity, making this is our largest target for reduction. To ultimately achieve net zero emissions from electrical consumption, attention to energy efficiency, reduced consumption, procurement of electricity from clean sources and the purchase of off-sets will all be necessary.

Strategies:

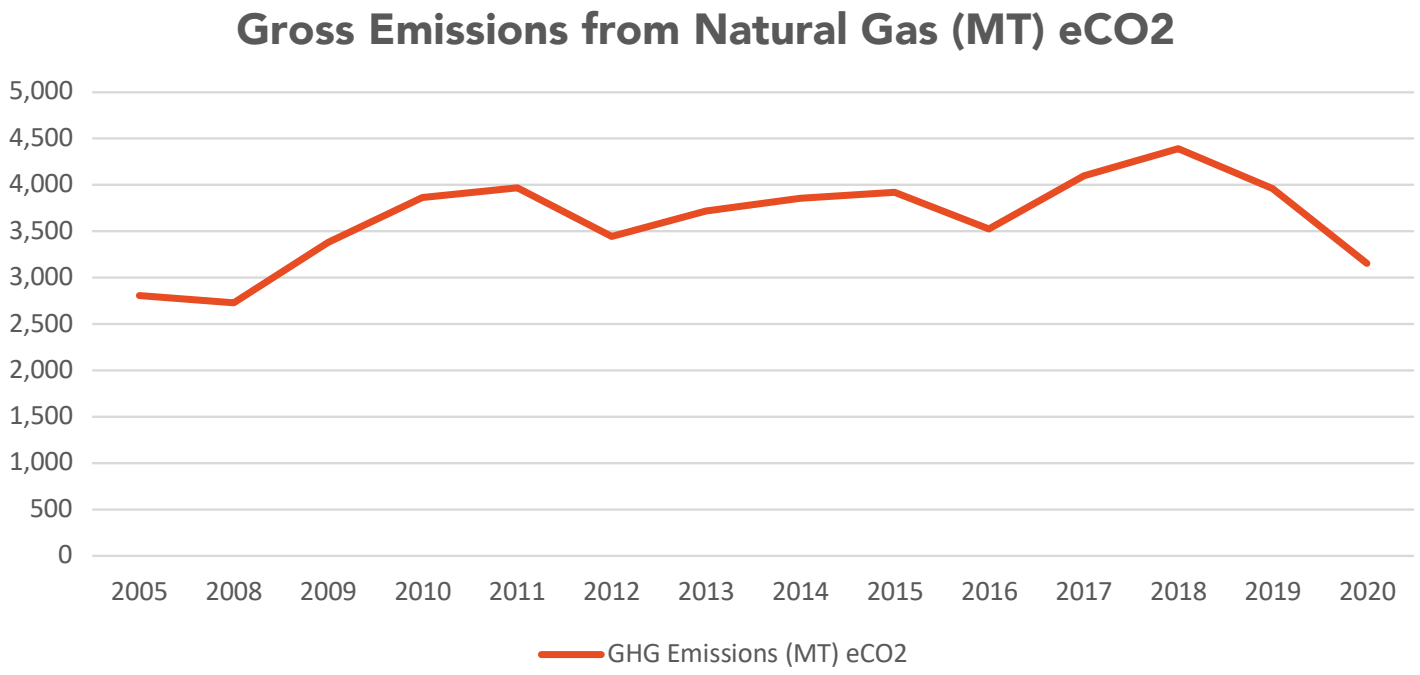
- Increase electrical efficiency of campus buildings.
  - Examine building envelopes and develop plans to address air leakage and other sources of undesirable thermal loss and thermal gain.
  - Increase electrical efficiency with replacement HVAC, lighting and other building equipment and controls.
  - Critically consider the carbon footprint in the design of new construction and major renovations.
  - Examine the current temperature set-point policy and consider energy-saving modifications to the existing policy and practices on campus.
- Increase electrical efficiency of campus information technology systems.
  - Examine server and data center energy demands.
  - Examine PC power management strategies.
  - Explore a combined approach of replacing energy-inefficient components, developing more energy-efficient systems and implementing policies that reduce energy consumption.
- Make energy efficiency a guiding principle in campus purchases.
  - Develop a procurement policy that requires energy-efficiency considerations for all University electrical appliance and equipment purchases.

Strategies continued:

- Increase the use of clean and renewable energy.
  - Install additional solar photovoltaic systems on campus to generate clean energy on site.
  - Subscribe to and support off-site community solar facilities.
  - Increase the percentage of purchased electricity derived from renewable and carbon neutral sources.
- Develop human behavior modification strategies aimed at reducing the use of electricity.
  - Continue education and outreach efforts to increase awareness and inform decisions.
  - Develop methods to incentivize individual University divisions and departments to reduce their electrical consumption.
- Purchase off-sets for remaining emissions from electricity.

Responsible Departments: Energy Manager and Campus Sustainability

GOAL 2: **Reduce Emissions from Natural Gas**



The burning of natural gas is our second largest contributing source of carbon emissions, accounting for approximately 29.4% of our net total. Since 2005, natural gas-related emissions have increased, with 2020 emissions landing at 12.4% higher than the baseline. The year 2020, given the reduction of campus operations during the COVID-19 pandemic, is likely not the most representative benchmark for comparison. A review of 2019's data, as compared to 2005, reveals a 41.2% increase in eCO2 emissions. Much of this increase is attributable to the University's transitioning from fuel oil to natural gas-fired systems, which are in fact cleaner burning.

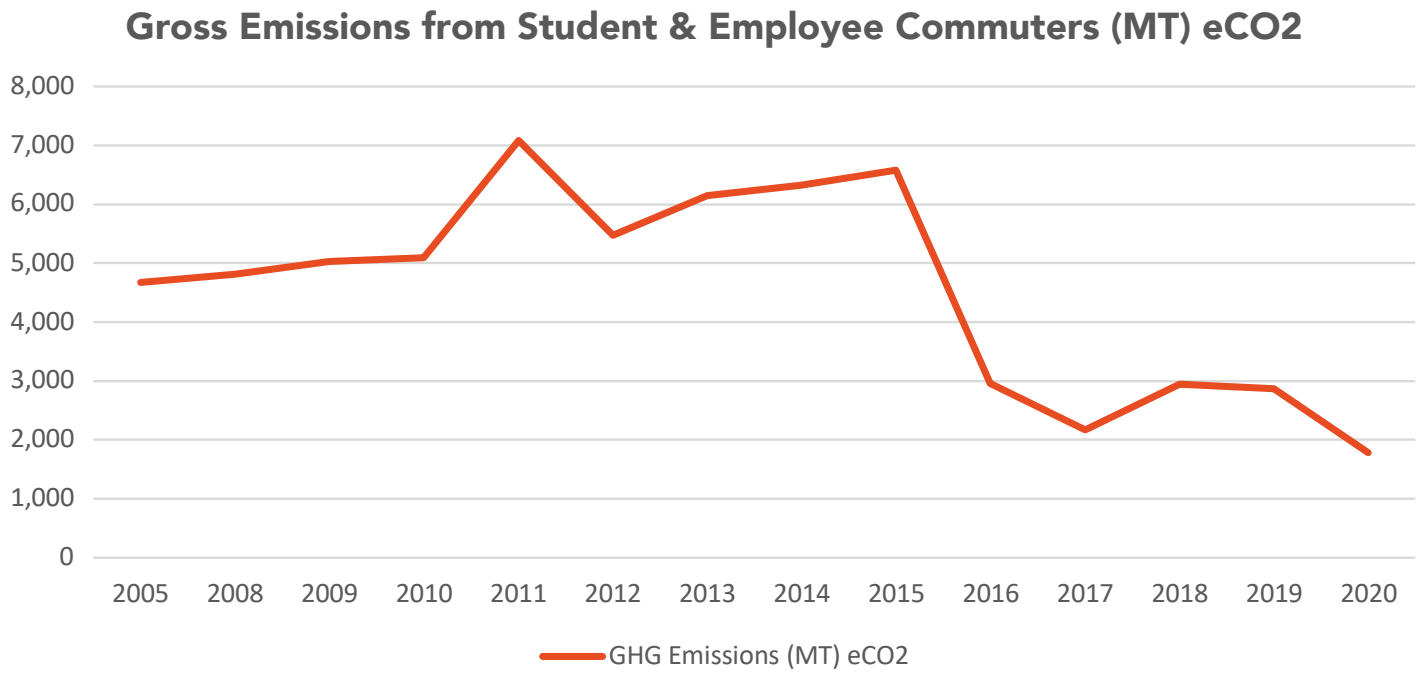
The blunt reality is that there exists no current technology to allow for emissions-free combustion of natural gas. To ultimately achieve net zero emissions, equipment replacement, attention to energy efficiency, reduced consumption and the purchase of off-sets will all be necessary.

Strategies:

- Replace natural gas-fired equipment with electric equivalent, where feasible. If electric equivalent is unavailable or impractical, examine other fossil fuel equivalents with greater efficiency and lower emissions.
- Examine building envelopes and develop plans to address air leakage and other sources of undesirable thermal loss and thermal gain.
- Examine the current temperature set-point policy and consider energy-saving modifications to the existing policy and practices on campus.
- Develop human behavior modification strategies aimed at reducing the use of natural gas.
- Purchase off-sets for remaining emissions from natural gas-fired equipment where equipment replacement is not feasible.

Responsible Departments: Physical Plant, Energy Manager and Campus Sustainability

GOAL 3: Reduce Emission from Faculty, Staff and Student Commuters



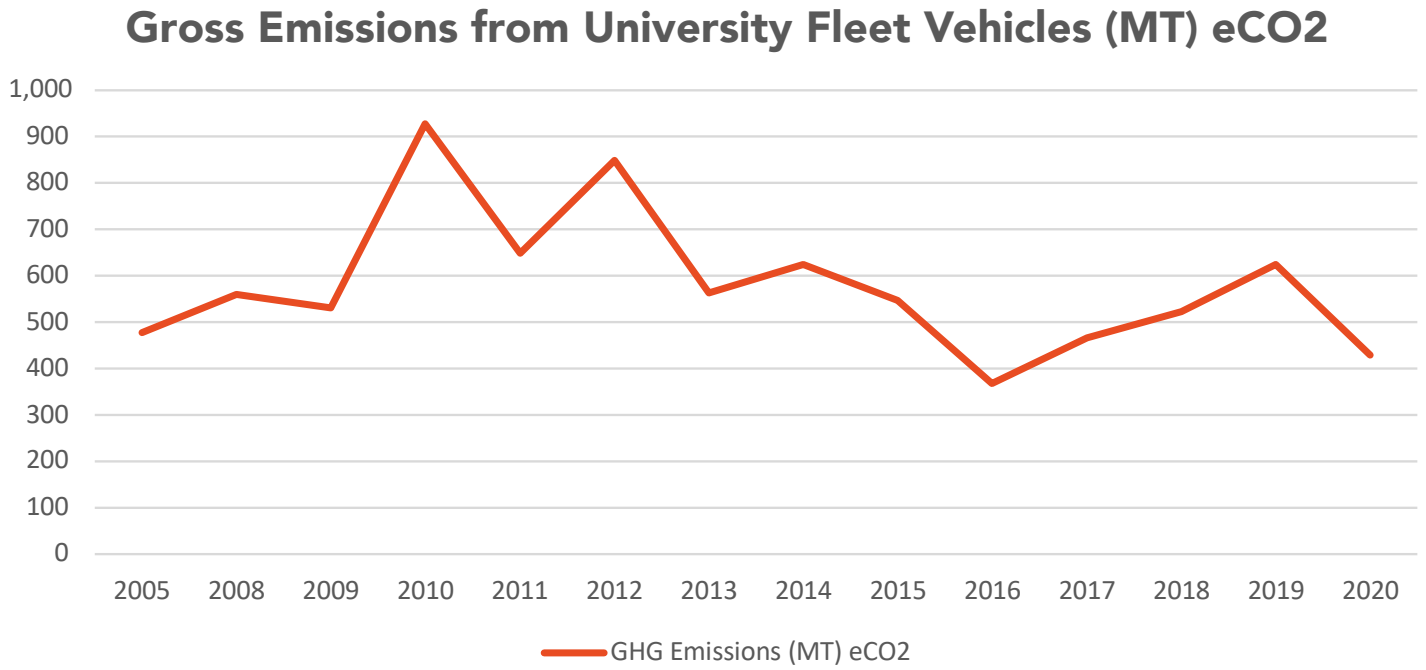
It is estimated that approximately 16.6% of the University's 2020 net carbon emissions were the result of faculty, staff and student commuters. This number is likely not representative of the larger trend, given that many students were attending online and many employees worked remotely during the pandemic. Using data from 2019, a more likely figure of 32.5% of total net emissions are derived from commuter vehicles. The variables used to calculate this figure include the distance from students' local addresses to campus, average vehicle fuel efficiencies and a number of other assumptions. The emissions reductions that we have reported since 2016, while attributable in some degree to improvements in automobile fuel efficiencies, are mainly the result in changes to calculation methods.

Strategies:

- Develop strategies and incentives to reduce the frequency of individuals commuting to campus.
- Develop strategies and incentives to encourage commuters to use electric, hybrid and low-emitting vehicles.
- Enhance pedestrian, bicycle and public transportation alternatives for commuting.
- Purchase off-sets for remaining emissions from commuter travel; explore attaching the cost of off-sets to individual parking permits.
- Partner with Delmarva Power to install EV charging stations on campus.

Responsible Departments: Human Resources, Facilities Planning and Campus Sustainability

GOAL 4: **Reduce Emissions from the University Fleet**



In 2020, the University's fleet of motor vehicles accounted for approximately 4% of our net carbon emissions.

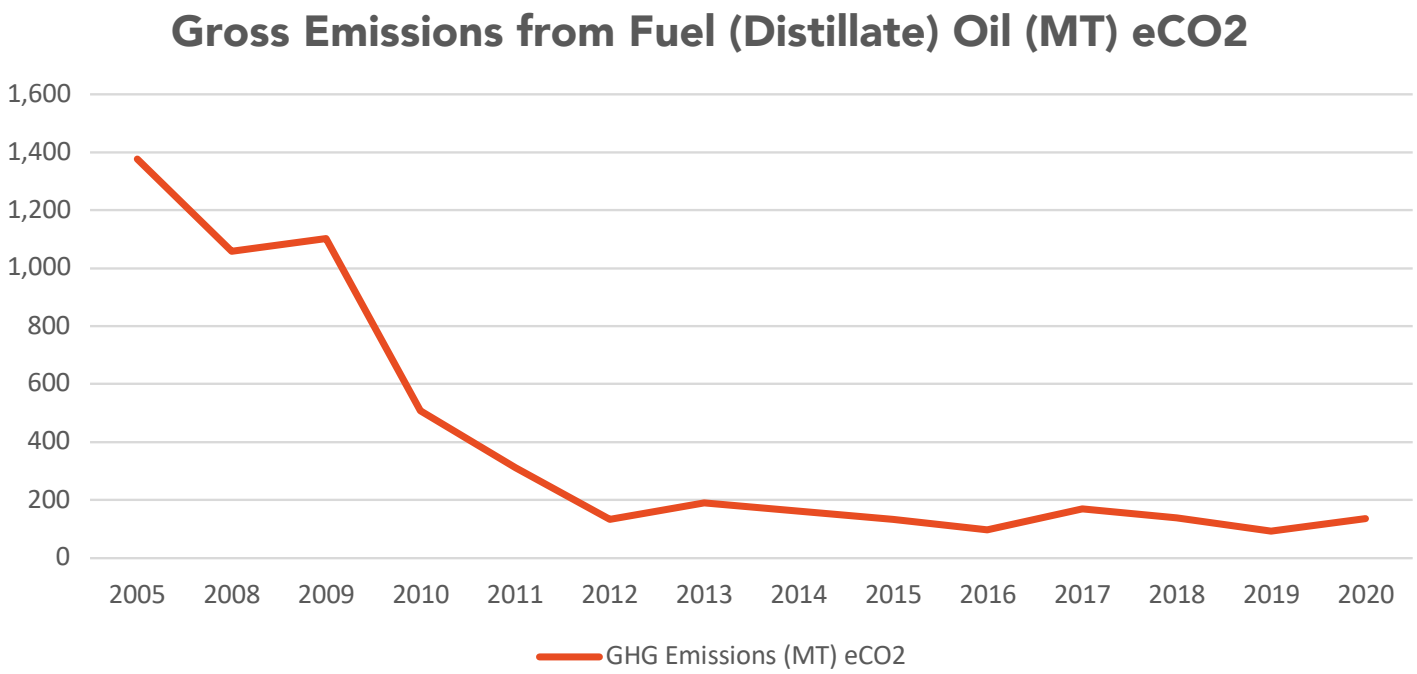
Strategies:

- Develop a vehicle procurement strategy with an emphasis on selecting electric, hybrid and low emitting vehicles.
- Develop institutional vehicle-use policies that to reduce driving miles and vehicle idling.
- Purchase off-sets for remaining emissions from fleet vehicles.

Responsible Departments: Motor Pool and Campus Sustainability

The campus is home to a registered arboretum featuring over **2,000 species of plants**

GOAL 5: **Reduce Emissions from Fuel Oil**



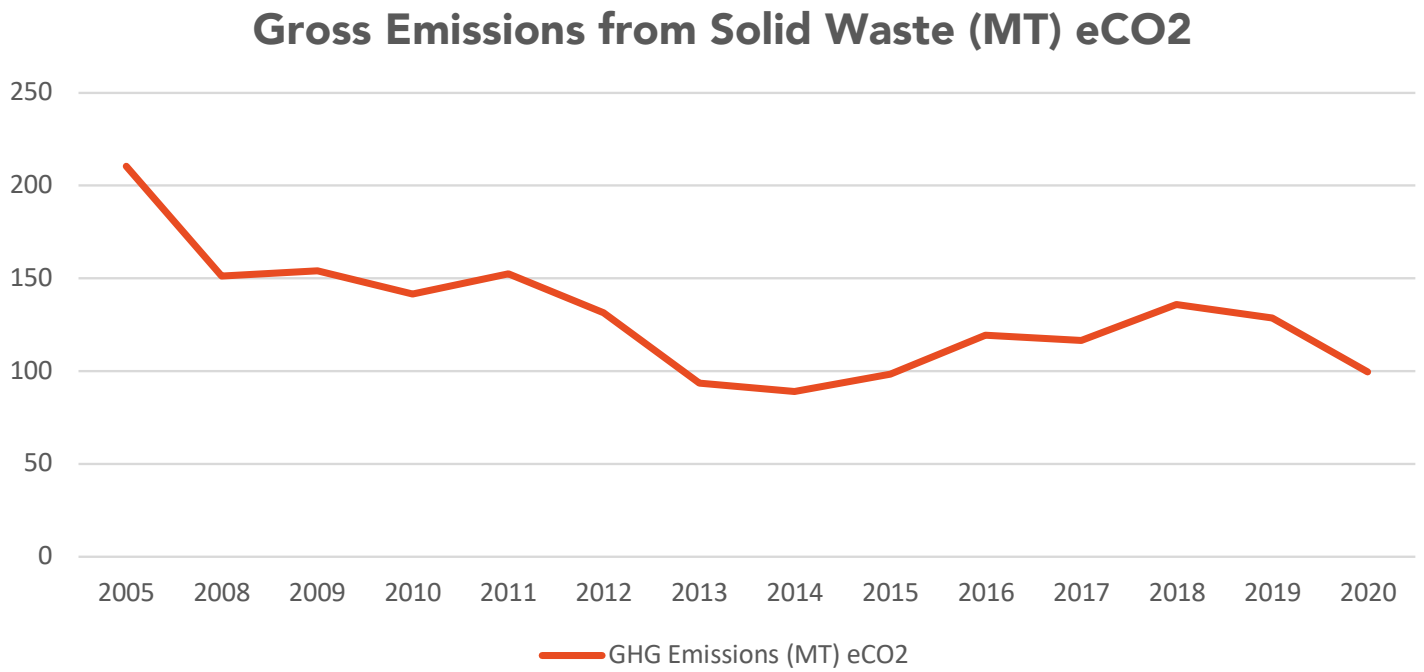
Since 2005, SU's carbon emissions from the burning of fuel oil has been reduced by over 90%, and it now accounts for less than 1.3% of our total emissions.

Strategies:

- Replace fuel oil-fired equipment with electric equivalent, where feasible. If electric equivalent is unavailable or impractical, examine other fossil fuel equivalents with greater efficiency and lower emissions.
- Examine building envelopes and develop plans to address air leakage and other sources of undesirable thermal loss and thermal gain.
- Examine the current temperature set-point policy and consider energy-saving modifications to the existing policy and practices on campus.
- Develop human behavior modification strategies aimed at reducing the use of fuel oil.
- Purchase off-sets for remaining emissions from fuel oil fired equipment where equipment replacement is not feasible.

Responsible Departments: Physical Plant, Energy Manager and Campus Sustainability

GOAL 6: **Reduce Emission from Solid Waste**



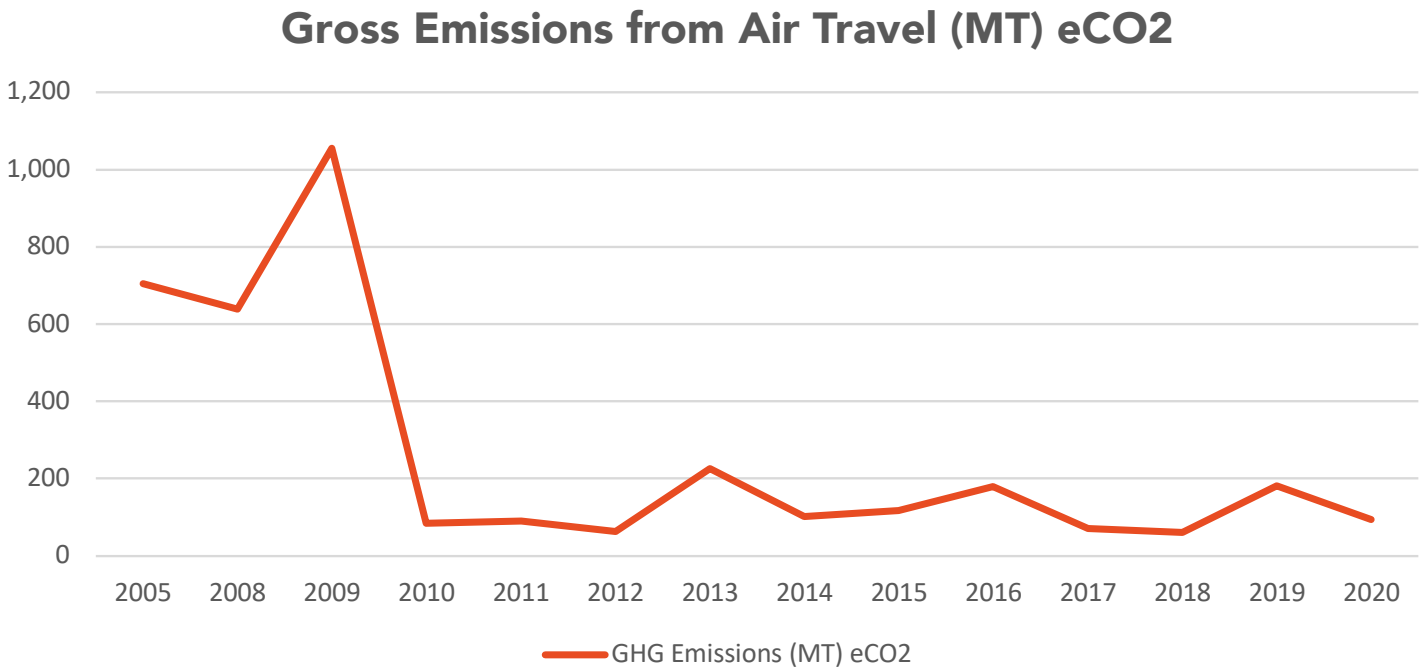
In 2020, solid waste contributed less than 1% to the University's total net emissions.

Strategies:

- Reduce solid waste generated by campus operations.
  - Develop strategize to increase recycling rates on campus.
  - Explore composting and other alternatives and diversions to landfill disposal of solid waste.
- Purchase off-sets for remaining emissions from solid waste.

Responsible Departments: Horticulture and Grounds and Campus Sustainability

GOAL 7: **Reduce Emissions from Air Travel**

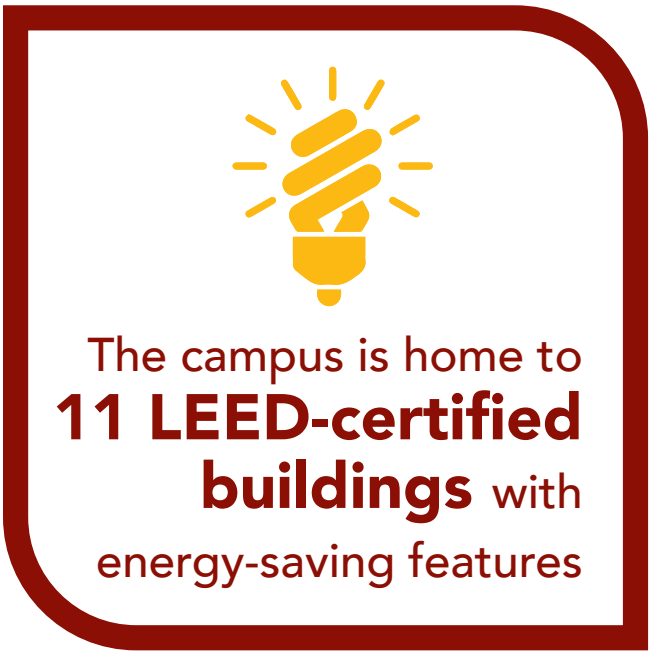


Air travel contributed less than 1% to the University's total net emissions in 2020; however, the historical emissions data reveals that years that include significant air travel could potentially result in air travel being our third largest contributor to our carbon footprint.

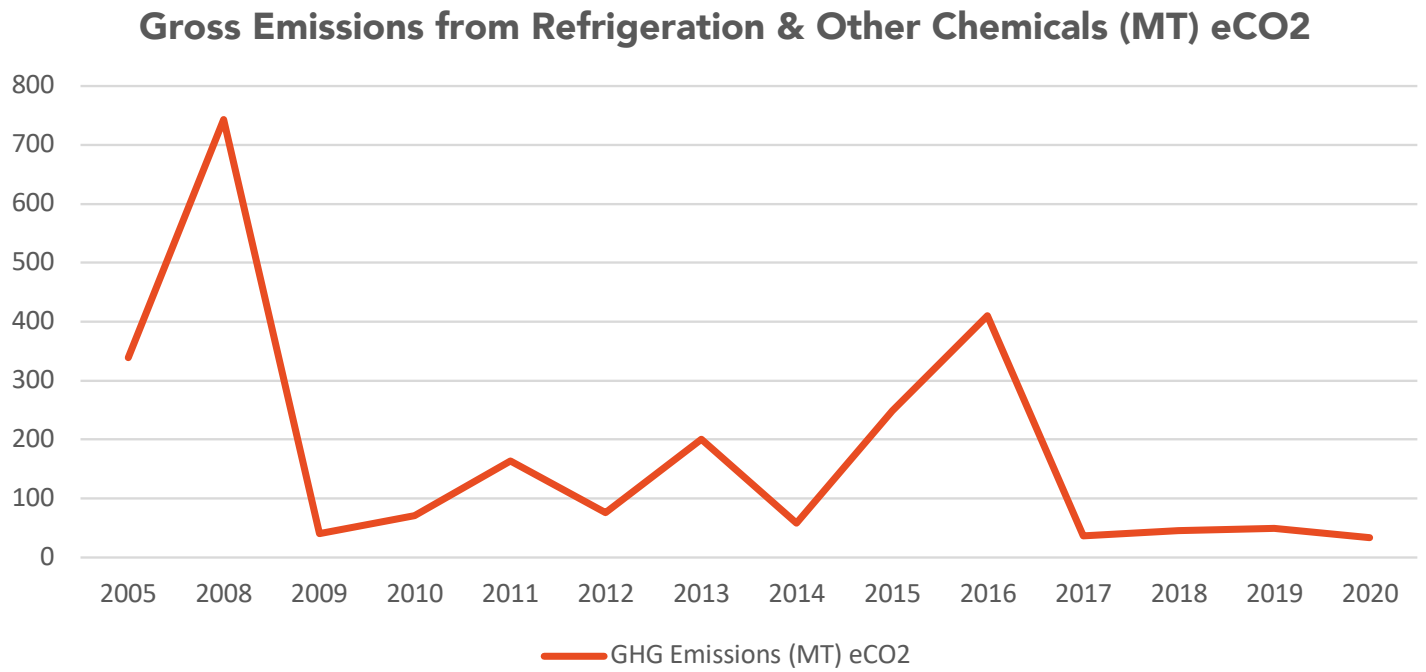
Strategies:

- Encourage members of the campus community to limit air travel, including passing along the cost of the off-set purchase to each department on a per-air-mile basis.

Responsible Departments: Procurement and Campus Sustainability



GOAL 8: Reduce Emissions from Refrigerants & Other Chemicals



In 2020, refrigerants and chemicals account for less that .5% of our total emissions.

Strategies:

- Properly maintain and service HVAC and refrigeration equipment to limit fugitive emissions.
- Consider the Global Warming Potential (GWP) of the refrigerant used in existing systems to guide and drive equipment replacement prioritizations and decisions.
- Purchase off-sets for remaining emissions from refrigerants and chemicals.

Responsible Departments: Physical Plant and Campus Sustainability

CLIMATE RESILIENCE

Resilience is the ability of a system or community to survive disruption and to anticipate, adapt and flourish in the face of change. Recognizing the importance of being resilient when facing a changing climate, the University took the first step toward achieving its Resilience Commitment in 2018. We convened a Campus/Community Task Force and completed a Resilience Assessment.

The assessment served to not only assess vulnerability, but also to assess overall resilience and adaptive capacity. With the understanding that the resilience of Salisbury University is based on our own unique set of characteristics, future goals, existing capacity and strengths, and current and future vulnerabilities, the following assessment was made to guide the development of solutions and prioritization:

SU's Resilience Assessment Process

The resilience assessment process began with the University's already existing Sustainability Committee conducting a preliminary assessment. The University Sustainability Committee, comprised of a wide representative group of students, faculty and staff, then coordinated with the existing Academic Sustainability Committee for additional insight. The Academic Sustainability Committee is a group focused on implementing and highlighting sustainability-centered education components throughout the curriculum. Once the campus' resilience inventory was complete, the University shared its findings with representatives from the City of Salisbury and Wicomico County governments. The process culminated with a gathering of representatives from the campus, the city and the county to collaboratively complete a final campus-community resilience assessment. The assessment process, which required us to examine the "five dimensions of resilience," was the catalyst for a broader and more comprehensive examination of resilience then had previously been undertaken.

SU's Climate Resilience Strengths/Assets and Vulnerabilities

The Resilience Assessment identified the following strengths/assets for the campus and the community that support resilience:

- 541 kW photovoltaic solar array on campus.
- Strategically placed filtered drinking fountains on campus, equipped with water bottle-filling stations.
- The City of Salisbury is a Sustainable Maryland-certified city.
- Eleven LEED-certified buildings on the campus of Salisbury University.
- Alternative transportation options in place, including free public transportation for students, faculty and staff. Both the city and the University are designated bronze level "bike friendly" through the League of American Bicyclists.
- The University is home to an American Public Gardens Association-recognized arboretum.
- The campus is outside FEMA flood hazard zones and includes dozens of stormwater management structures, which reduce the quantity and improve the quality of runoff.

The Resilience Assessment identified the following climate change-related hazards, impacts and exacerbating factors facing SU and the greater community:

Climate Change Hazards	Climate Change Impacts	Climate Change Exacerbating Factors
Extreme Heat	Power Outage	Inadequate Infrastructure
Extreme Cold	Poor Air Quality	Inadequate Sanitation Systems
Rainfall Flooding	Infrastructure Failure	Poverty
Hurricanes	Disease Outbreak	Drug & Alcohol Abuse
Coastal/Tidal Flooding	Storm Surge	
Severe Storms	Food Security/Supply Disruptions	

To determine our initial indicators of resilience, we examine the five dimensions of resilience: Social Equity and Governance, Health and Wellness, Ecosystem Services, Infrastructure, and Economic. SU's Initial Indicators of Resilience, in each of the five dimensions, were determined to be as follows:

SOCIAL EQUITY & GOVERNANCE		
	Indicator	**Current status and metric of measurement**
1	Community connections and engagement	Qualitative. The campus and community partner together on many initiatives. There exist a number of committees and workgroups comprised of both campus and community members.
2	Education level	Quantitative. 88% of county residents over 25 years old have a high school diploma, GED or higher. 27% of people over 25 years old have a bachelor's degree or higher. (Nationally, the figures are 87% and 30% respectively.)
3	Poverty level	Quantitative. 18% of Wicomico County residents live in poverty (compared to 12.7% nationally).
4	Emergency planning capabilities	Qualitative. Salisbury University has an all-hazards emergency operations plan. The campus and community coordinate on emergency plans and have participated together in tabletop exercises.
5	Awareness of climate change	Quantitative. The University is developing criteria for "Environmental Sustainability" course designations in the institution's General Education program. Through these courses, "students will be able to trace the ways in which individual actions are linked to interconnected natural and social systems."
6	Institutional engagement	Qualitative. There exists on campus a Sustainability Committee and an Academic Sustainability Committee. The University has demonstrated a commitment to sustainability through the development of a Climate Action Plan, monitoring its carbon footprint, building LEED-certified facilities and numerous other programs and endeavors.

HEALTH & WELLNESS		
	Indicator	**Current status and metric of measurement**
1	Access to health care	Qualitative. All registered students have access to low-cost health care on campus. The local area is served by a regional medical center and several urgent care centers.
2	Food security	Quantitative. A food pantry recently opened on campus to help ensure that students are food secure.
3	Mental health	Quantitative. Students have access to free crisis intervention and outpatient therapy on campus. The ratio of full-time equivalent Counseling Center staff to full-time equivalent students is 1 to 1,982 at Salisbury University (The national average is 1 per 1,574). The University has a behavioral assessment team and an employee assistance program for mental health-related issues. Wicomico County has a "Memphis Model" behavioral health Crisis Intervention Team (CIT).
4	Affordable housing	Quantitative. 51.2% of renter households in the county are cost burdened, as defined by HUD, spending 30% or more of their income on gross rent.
5	Homeless population	Quantitative. An estimated 6% of the Eastern Shore's population is homeless. The rate of homelessness within the campus community is not well known.
6	Emergency potable water supplies	Quantitative. The University has no potable wells and relies entirely on the municipal water supply. The city has generator power to maintain water supply for 72 hours at 100% production before needing a resupply of fuel.
7	Emergency health care	Quantitative. Salisbury University has a small ambulatory health care center. Wicomico County is home to a regional medical center with 288 licensed hospital beds. The Wicomico County Health Department Emergency Preparedness Program provides strategic leadership, direction and coordination of activities, ensures local readiness and interagency collaboration for public health threats, including a medical surge plan. The University's School of Health Sciences could serve as a valuable resource during an emergency medical surge event.

ECOSYSTEM SERVICES		
	Indicator	**Current status and metric of measurement**
1	Plant diversity	Quantitative. The campus is home to a registered arboretum featuring over 2,000 species of plants. Emphasis on pollinator-friendly plantings throughout campus.
2	Watershed	Quantitative. The University's stormwater discharge is in compliance with the National Pollutant Discharge Elimination System. The University currently holds a Municipal Separate Storm Sewer System (MS4) Phase II General Permit. The campus has employed green roofs and other systems to divert rainwater away from the city and county storm water management systems. The Wicomico Environmental Trust is an active nonprofit that worked with government and other non-governmental organizations to develop a watershed management plan for the Wicomico River.
3	Water conservation	Quantitative. In 2008, the campus installed low-flow aerators in sinks and showers and low-flush rated toilets, measures estimated to reduce the annual water consumption rate by at least 11 million gallons. In 2011, a new commercial dishwashing system was installed, which uses 31.7 gallons of hot water and 39.6 gallons of cold water per hour of operation, representing a significant reduction in water use and up to 50% less detergent than other systems on the market. Irrigation of landscaping has been reduced significantly over the years and is used only when necessary to maintain the health of the plants. In addition, a rainwater collection cistern was installed for Nanticoke residence hall and is used to provide landscaping irrigation in that area.
4	Horticulture practices	Qualitative. SU has been awarded the PLANT Green Award, the highest sustainability award given by the Maryland Department of Natural Resources Forest Service and Forestry Council, annually since 2009. Planting beds are weeded manually to reduce the use of herbicides. Mulching blades are used on SU lawnmowers to reduce waste and add nutrients back into the soil from grass and leaves. The University is recognized by "Bee Campus USA" for pollinator-friendly practices.

INFRASTRUCTURE		
	Indicator	**Current status and metric of measurement**
1	Public transportation availability	Qualitative. The area is serviced by Shore Transit bus service, which is free to all students and employees. The University also partners with Shore Transit to operate a weekday shuttle to and from various student housing complexes in the vicinity of campus.
2	Emergency notification system	Qualitative. Officials can communicate emergency information to the campus community utilizing the University's multi-component, multi-wave emergency alert system. The Wicomico County Department of Emergency Services can initiate activation of the Wireless Emergency Alert system.
3	Energy efficiency	Qualitative. The campus is home to 11 LEED-certified buildings. Energy-saving features such as occupancy sensors, efficient lighting, solar hot water heating, geothermal heating cooling systems and a photovoltaic solar array have been installed. The University requires all new buildings and major renovations to meet LEED Silver certification or equivalent at a minimum.
4	Backup energy	Quantitative. The University has little capacity to operate during short-term power outages and does not have backup energy sources to maintain operations during a long-term grid failure.
5	Dam safety/flooding	Quantitative. There are 17 dams in Wicomico County. While failure of the dams would not directly pose a threat to campus, three of these dams are within a few miles of the University, (Beaglin Park, Coulbourn Mill and Morris Mill) and are rated as high hazard because failure would result in loss of life and extensive property damage in the community.

ECONOMIC		
	Indicator	**Current status and metric of measurement**
1	Green fund	Quantitative. The University assesses a $12 per semester fee to each full-time student to fund the "Green Fund." The Green Fund is designed to improve the environmental sustainability at SU by providing funding for student and faculty driven projects in order to positively impact the social and economic atmosphere. The Green Fund keeps in mind the priorities of the current Climate Action Plan.
2	Energy efficiency incentives	Qualitative. Through the EmPOWER Maryland program, Delmarva Power customers have access to home energy assessments and various rebates for energy efficient improvements for residential and commercial customers. There is a specific program to help low-income households. The State of Maryland has a host of clean energy incentives, including grants, loans and tax credits.
3	Employment	Quantitative. As of December 2017, Wicomico County's unemployment rate is 6%, compared to 4% statewide and 4.1% nationally.

INITIAL OPPORTUNITIES FOR CLIMATE RESILIENCE

The University has identified opportunities to increase awareness of climate change through developing criteria for "Environmental Sustainability" course designations in the institution's General Education program and through community-focused outreach programs. Education about the issue of climate change is the requisite first step toward building resilience, and the University is poised to help provide that education. The community partners identified an opportunity to include projected climate change related hazards in their upcoming emergency operations risk and hazard reassessment. The University, the city and the county have all experienced a recent increase in the occurrence of temporary flooding due to heavy rainfall events, spurring discussions about the role of development, hardscape and storm water management practices as exacerbating factors. The University recently has installed removable flood barriers at its most flood-prone building and plans to continue developing practices and systems to further bolster its resilience. The campus and community partners each recognize that the further development of resilience solutions is a shared responsibility, for the impacts we face are likewise shared.

RESILIENCE-SPECIFIC GOALS FOR THE CLIMATE ACTION PLAN

GOAL 1: Improve Stormwater Management

Short-Term Goal:

- Perform watershed assessments and identify water quality problems and opportunities for restoration.

Mid-Term Goal:

- Provide complete list of specific projects needed to meet Maryland Department of the Environment (MDE) 20% restoration requirements and include the projected implementation year. Confirm compliance with the University's MS4 Phase II General Permit.

Long-Term Goal:

- Implement the restoration projects needed to meet the MDE 20% restoration requirements and maintain compliance with the University's MS4 Phase II General Permit.

GOAL 2: Increase Food Security and Resilient Food Distribution and Storage Systems

Short-Term Goals:

- Re-assess campus community to identify food insecurity.
- Develop communications plan to contact potential off-campus partners of Food for the Flock.

Mid-Term Goals:

- Utilize off-campus partnerships forged in order to expand operations.
- Implement regular evaluation of program and partnerships.
- Seek alignment of Food for the Flock with other on-campus services.

Long-Term Goals:

- Further align Food for the Flock with other on-campus services, including a new centralized location to house all.
- Continue working with off-campus partners to create a network of services in the general Eastern Shore region.

Salisbury UNIVERSITY
A Maryland University of National Distinction

www.salisbury.edu/sustainability

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