

Johns Hopkins University

DRAFT CLIMATE ACTION & SUSTAINABILITY PLAN

Fall 2023



JOHNS HOPKINS
UNIVERSITY

Sustainability



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OVERVIEW

Purpose of the Plan

Anthropogenic climate change is one of the dominant global challenges of our time – one that will have far-reaching impacts, both at home and across the world. Climate change is already manifesting as extreme heat, poor air quality, and flooding events, all of which are threatening the health, well-being, and vitality of JHU and its communities.

This is why JHU has chosen to act ambitiously to help mitigate climate change by reducing our emissions while we work to adapt to its unavoidable impacts, both through our operations and in our academic mission. As the shared challenge of climate change also sits within a broader context of environmental justice and resource sustainability, JHU will take a holistic approach to sustainability that addresses our university's full environmental footprint, and that embraces our opportunities and responsibilities to advance healthy environments in our neighboring communities and around the world.

To guide these efforts, the Climate Action and Sustainability Plan (Plan) sets out the means for JHU to directly respond to both anthropogenic climate change and other dimensions of sustainability. It outlines a series of strategic goals, objectives, and actions JHU can advance until 2030 while laying the groundwork for milestones that require longer planning and coordination. With sections on Research, Teaching & Scholarship, Climate Action, Built & Natural Environments, Responsible Consumption, and Mobility & Transportation, this new university-wide Plan will leverage the university's unique interdisciplinary expertise to create a clear and collaboratively developed vision for a sustainable future.

Current Draft

This current draft of the goals, objectives, and actions has been developed through extensive campus and community stakeholder collaboration over the past year and a half. This effort included: a campus-wide survey to inform our vision and principles; a series of eleven topical workshops to generate ideas and recommendations; and the work of four working groups, three advisory groups, a steering committee, and countless others in drafting and refining the plan content. As we have worked to develop a shared vision for the future, we have kept the needs and values of our multiple campuses, the local communities in which we reside, and the global audiences that our teaching and research reach at the fore.

We are now looking for input on the draft goals, targets, and strategies, which will help shape the final plan.

This is not a moment for complacency. We are poised at a defining moment for how life on our planet will look for the next several generations. JHU is no stranger to acting boldly in the face of society's most pressing challenges, and climate action and sustainability should be no exception.

VISION & GUIDING PRINCIPLES

Vision

Advance healthy, just, and sustainable environments in our communities and around the world

Guiding Principles



1. Innovation and Discovery

Leverage our research and pedagogy to accelerate sustainability innovations that contribute to solving the world's most pressing environmental challenges



2. Urgency for Climate Action

Accelerate solutions that combat the climate crisis through education, research, and the rapid and responsible decarbonization of our campuses



3. Community Partnership

Build transparent, collaborative, and lasting partnerships that embrace diversity, ensure all voices are heard, and address local community priorities



4. Justice and Equity

Use a lens of justice and equity to guide our sustainability actions



5. Environmental Stewardship

Foster a culture of stewardship, conservation, and resource efficiency in our daily operations



6. Protecting Health

Champion solutions that protect the health of all people and our planet



7. Accountability and Impact

Prioritize impactful outcomes that are scalable, cost-effective, and account for externalities

RESEARCH, TEACHING, & SCHOLARSHIP

JHU is at the forefront of best-in-class academic research. As an eminent institution of higher education, JHU is uniquely positioned to be a leader in spheres of sustainability and the environment. Climate change, alongside other accelerating environmental stressors, poses daunting sustainability challenges for human health and inclusive well-being. These challenges are at once global in scope and highly localized in impact, where marginalized groups and communities are often at greatest risk. Importantly, these challenges are not amenable to singular technological or policy solutions. They are wicked problems, in which stakeholders have radically different world views and different frames for understanding the problem, thereby demanding interdisciplinary solutions. Processes for building our collective knowledge, capacity, and solutions can matter as much as articulation of the problem itself.

As such, our goals for research, teaching, and scholarship are solutions-oriented and build on JHU's people-centered approach to knowledge. The world needs innovative democratic, equitable, and durable solutions. JHU has the right combination of cross-disciplinary expertise, institutional ethos and reputation, and geographic position to be the leading source of much-needed innovation and to prepare its students for a rapidly changing world.

SECTION 1: RESEARCH, TEACHING, & SCHOLARSHIP



GOAL 1

JHU is a leading source of solutions in the transition to a low-carbon, healthy, and resilient future

OBJECTIVE 1.1

Accelerate cross-disciplinary collaboration for planetary health and climate justice, locally and globally

KEY ACTIONS

- » **Launch a sustainability initiative** to advance equitable climate adaptation that leverages strengths across disciplines, including in public health, health care, climate science, policy and humanities
- » **Lead in sustainable energy innovation** by contributing new scientific breakthroughs, tools, policy, and climate leaders, working toward the goal of a low carbon society
- » **Establish a physical convening space** to host cross-institutional sustainability initiatives
- » **Partner with national, state and local governments and organizations** in the U.S. to innovate and evaluate sustainability interventions, programs and policies
- » **Build capacity, locally, nationally, and in low- and middle-income countries**, through dedicated engagement and training initiatives focused on sustainability needs and opportunities
- » **Establish a fund to engage with emeritus faculty and alumni** who have extensive networks and could contribute to developing or extending sustainability curricula and other activities

SECTION 1: RESEARCH, TEACHING, & SCHOLARSHIP

OBJECTIVE 1.2

Host transformative programs in multiple sustainability-oriented fields, including undergraduate and graduate degree programs and outreach programming

KEY ACTIONS

- » **Develop and promote cross-disciplinary and cross-divisional** undergraduate, full- and part-time masters, and Ph.D. programs for students focusing on sustainability and environmental justice
- » **Create dedicated K-12 sustainability lesson plans**, building from existing collaborations in Baltimore and elsewhere, and expanding through new partnerships and online tools
- » **Leverage existing and new community engagement initiatives** to advance collaborative research and training in sustainability and climate resilience
- » **Raise the profile of JHU's academic sustainability programs** through multi-sector partnerships that foster community, expand the impact of community leaders and experts, and leverage the university's influence to enhance regional outcomes
- » **Engage decision-makers and disseminate sustainability knowledge**, making use of our institutional footprint locally, at 555 Penn, and internationally
- » **Serve as a global leader in advancing sustainability within the medical training curriculum**, leveraging JHU's strengths in medical education and research

OBJECTIVE 1.3

Sustainability thinking infuses the academic experience, such that every JHU student can think critically about sustainability, knows what JHU is doing to advance sustainability, and has opportunities to actively participate

KEY ACTIONS

- » **Develop core sustainability and environmental justice competencies** for all students
- » **Establish incentives for faculty** to engage in sustainability teaching, scholarship, and campus-based innovations, and for meaningful student participation
- » **Expand sustainability internship programs** that enhance on-campus and community-based connections and provide students with meaningful applied learning and professional experiences
- » **Strengthen sustainability-focused career service offerings** to enhance student knowledge of post-graduate career opportunities, competency requirements, and to foster green job career pipelines
- » **Foster student-led sustainability research** through course-based projects and **faculty-advised research** that includes student involvement in the JHU Campus as a Living Laboratory program and support for participatory research initiatives

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RESEARCH & ACADEMICS INITIATIVE

An innovative, multidisciplinary initiative for climate- and sustainability-focused research and academics

Humanity currently faces a daunting set of interacting environmental and human sustainability challenges. Climate change, biodiversity loss, air and water pollution, resource scarcity, waste, and the environmental injustices associated with each can collectively be described as a planetary crisis that demands urgent action and transformative innovations. JHU is poised to meet these challenges, and doing so requires deep and sustained collaboration across disciplines.

To catalyze this effort, the university will launch a transformative initiative for collaborative sustainability research. This initiative will convene JHU scholars from all divisions of the university to tackle the most pressing environmental challenges of our time, from local to global in scale. In doing so, the initiative will leverage the tremendous strength of the JHU faculty, staff, and students, and of existing university centers and institutes that include the Ralph O'Connor Sustainable Energy Institute (ROSEI), the SNF Agora Institute, the Center for a Livable Future, and many others.

The initiative is expected to include collaborative working groups, new academic programs, and an interdisciplinary Fellows program. It will cultivate an environment of purpose-driven innovation through seminars, workshops, and other community-building events. The initiative will also enhance the impact of JHU scholarship by connecting its affiliates and working groups with opportunities for policy outreach and community engagement. This includes working with the Planetary Health Alliance, a consortium of more than 360 institutions that recently relocated its secretariat to JHU, and developing policy-oriented communications and collaborations in Baltimore, at 555 Penn, and beyond.



Students conducting field research with the Earth & Planetary Sciences Department in Patapsco State Park

CLIMATE ACTION

Climate change is a complex challenge requiring urgent action across all levels of society. In 2007, the President's Task Force on Climate Change was formed to develop a set of recommendations for reducing greenhouse gas emissions at JHU. At that time, students, faculty, staff, and regional partners strategized pathways to address climate change mitigation, culminating in a 51% greenhouse gas emissions reduction goal by 2025. Since then, JHU has invested considerably in its infrastructure and buildings to utilize technologies that reduce emissions and increase energy efficiency. These initiatives have resulted in a steady decrease in the university's carbon footprint, but more accelerated action is needed.

JHU now commits to a target of net zero greenhouse gas emissions by 2040 to drastically reduce carbon footprint in alignment with regional targets in Maryland, DC, and Baltimore City. We also commit to enhancing our ability to anticipate and adapt to a changing climate through careful planning and collaboration with local and regional partners. The impacts of climate change are already being felt and will increasingly challenge our health, operations, and infrastructure. Planning now will ensure the university is prepared for the long-term risks associated with climate change and the threats to our community and region.

SECTION 2: CLIMATE ACTION

GOAL 1

Boldly act to reduce greenhouse gas emissions

OBJECTIVE 1.1

Achieve net zero scope 1 and 2 greenhouse gas emissions by 2040

KEY ACTIONS

- » **Reduce scope 1 GHG emissions 20% by 2030 and 100% by 2040** emphasizing the phase-out of on-campus fossil fuels
- » **100% of purchased electricity (scope 2 GHG emissions) will be net zero from renewable energy sources by 2030**
- » **Develop decarbonization master plans and on-site renewable energy feasibility studies** for all JHU campuses prioritizing fossil fuel phase-out by 2040
- » All new buildings and major renovations will be **all-electric or electric-ready**
- » **Publish and audit JHU's GHG inventory annually** in partnership with third-party verifiers

OBJECTIVE 1.2

Establish a scope 3 greenhouse gas emissions reduction initiative by 2030

KEY ACTIONS

- » **Initiate measurement of scope 3 emissions categories** including purchased goods and services, food, design and construction, commuting, business travel, and waste
- » **Incorporate scope 3 emissions categories** to JHU's GHG emissions inventory by 2030
- » **Develop criteria for local, value-aligned carbon offsets** that reflect environmental justice and equity priorities

OBJECTIVE 1.3

Accelerate decarbonization and energy efficiency in existing buildings

KEY ACTIONS

- » **Develop a prioritized action plan** to ambitiously reduce energy and emissions in existing buildings at each campus
- » **Establish a continuous building commissioning program** to optimize energy efficiency
- » **Develop a dashboard** to track, report, and incentivize building energy and emission performance
- » **Expand a JHU Green Labs program** to engage researchers, reduce emissions, and improve resource efficiency in laboratory spaces

SECTION 2: CLIMATE ACTION

OBJECTIVE 2.1

Integrate climate adaptation priorities into campus planning, design and construction, and health and safety policies

KEY ACTIONS

- » **Integrate climate change impacts and adaptation strategies** into plans and policies, accounting for community needs
- » **Carry out climate risk assessments for vulnerable campus locations**, engaging community partners to identify interactions with Baltimore's risks and adaptation opportunities
- » **Integrate projected cost savings and risk reductions** from adaptation-oriented decision making in design and construction project analyses



GOAL 2

Prepare our campuses and communities for future climate conditions

OBJECTIVE 2.2

Partner to advance equitable climate adaptation in Baltimore

KEY ACTIONS

- » **Launch a fellowship program** placing JHU students, staff, and faculty in rotating adaptation-roles in city agencies
- » **Engage city staff** in climate resiliency and adaptation courses and programming
- » **Partner with Baltimore City agencies and neighborhood organizations** to co-design and implement environmental analysis systems that support equitable climate adaptation priorities of Baltimore communities
- » **Advance neighborhood-scale climate resilience** through partnerships between Baltimore's Community Resilience Hub program and the Homewood and East Baltimore campuses
- » **Collaborate with the City of Baltimore** to increase community awareness of natural hazards and climate change through the development of educational resources
- » **Support acute disaster response** with a working group to develop a plan for identifying on-campus, community-accessible refuge spaces for extended disaster events and other ways to coordinate healthcare and services during shock events

BALTIMORE

ENVIRONMENTAL JUSTICE INITIATIVE

A transformative initiative to strengthen collaboration between JHU and local Baltimore communities

JHU's history, community, and future is inextricably linked to Baltimore through its relationships, locations, and role as a regional anchor institution. As JHU re-envision efforts to infuse sustainability into all facets of university life, it is essential that the university does so with consideration for and in partnership with the people of Baltimore. Through such partnerships, the university seeks to support the communities in which our campuses are embedded, to achieve the sustainability goals they have defined for themselves, and to co-create opportunities for thriving communities in the city we call home.

The Climate Action and Sustainability Plan presents opportunities to strengthen collaboration between the University and Baltimore communities and continue the work of the Community Advisory Group that has contributed to the development of the Plan. To do so, the university will establish a new Environmental Justice Initiative that leverages JHU's academic strengths while addressing the needs of low-income and communities of color in Baltimore and beyond who are disproportionately impacted by climate change, environmental degradation, and pollution.

The Environmental Justice Initiative will build upon the university's many existing community-based efforts to strengthen communication, coordination, and collaboration while reducing siloes, fragmented or overlapping efforts, and confusion among community partners. This flagship initiative will advance community health, build trust, and deliver impactful outcomes to improve the livelihoods of Baltimoreans through scalable partnerships in alignment with JHU's academic mission and commitment to our city.



Shashawnda Campbell, South Baltimore Community Land Trust, and Anand Pandian, Ecological Design Collective and Anthropology, co-teaching the Environmental Justice Workshop

BUILT & NATURAL ENVIRONMENTS

Addressing sustainability in our buildings is critical to meeting JHU's climate action goals and protecting occupant health and well-being. While approximately 90% of JHU's greenhouse gas emissions come from its buildings, JHU does not have an established a consistent approach to integrating sustainability into building projects across divisions. Creating and enforcing green building standards will embed sustainability through all stages of every project across the institution, enhance positive outcomes for occupants and the environment, and reduce cost premiums associated with sustainability measures. Ensuring the sustainability of our buildings, the sites they occupy, and the infrastructure they rely on, will also add to the academic experience on campus and serve as teaching tools that complement curricular learning for students.

As JHU works to address sustainability in its buildings, we also commit to improving and expanding access to greenspace on our campuses. JHU will continue to recognize and protect the role of greenspace in providing ecosystem services and social benefits including stormwater management, increased habitat and biodiversity, resilience to climate change, mental health and well-being, and improved community linkages.

SECTION 3: BUILT & NATURAL ENVIRONMENTS

OBJECTIVE 1.1

Embed sustainability and health into all campus master plans by 2030

KEY ACTIONS

- » **Ensure that campus plans for Homewood, East Baltimore, and APL are developed, updated, and maintained regularly** to reflect best practices in sustainability and well-being
- » **Standardize workplace strategies and space use policies** to prioritize collaboration, adaptability, and efficient use of space
- » **Collaborate with community members** to align planning priorities and maximize co-benefits

GOAL 1

Plan, design and operate buildings and campuses to safeguard environmental and human health

OBJECTIVE 1.2

Design and renovate buildings to reduce emissions and exemplify best practices in environmental and human health

KEY ACTIONS

- » **Implement High-Performance and Healthy Building Requirements** to drive sustainable design strategies, resource efficiency, and occupant well-being
- » **Develop a standard and begin tracking the embodied carbon** of new construction and major renovation projects
- » **Pilot the use of green building rating systems** that showcase healthy, regenerative, and low-carbon design practices
- » **Integrate sustainability priorities into campus design standards** at all JHU locations

SECTION 3: BUILT & NATURAL ENVIRONMENTS

OBJECTIVE 1.3

All buildings provide healthy environments in which to work, learn, and thrive

KEY ACTIONS

- » **Establish innovative strategies to address occupant needs** including thermal comfort, air quality, lighting, and acoustics
- » **Develop building standards for occupant health and well-being** as well as evaluation protocols to track performance
- » **Create and implement a university-wide standard** for green cleaning practices

OBJECTIVE 1.4

Align our leased spaces with climate and sustainability goals

KEY ACTIONS

- » **Account for emissions of leased spaces** in JHU's GHG inventory and prioritize decarbonization strategies in support of net zero goal
- » **Evaluate feasibility and benefits of green leasing contract language** that aligns tenants, owners, and property managers around shared sustainability goals
- » **Develop guidelines and metrics** that aid decision-makers in evaluating sustainability considerations in new and existing leases



SECTION 3: BUILT & NATURAL ENVIRONMENTS

OBJECTIVE 2.1

Protect local water resources through conservation and stormwater management best practices

KEY ACTIONS

- » **Implement meters and begin tracking and measuring water use data** to set a university-wide reduction target
- » **Develop or update stormwater master plans** for Homewood, Applied Physics Laboratory and East Baltimore campuses
- » **Establish protocols** to build, maintain, and monitor green stormwater infrastructure
- » **Assess feasibility of developing a water reclamation facility** at the Applied Physics Laboratory and Homewood to reduce potable water use

GOAL 2

Design and steward landscapes that enhance biodiversity, health, and community connections

OBJECTIVE 2.2

All campuses have accessible greenspace to enhance biodiversity, support well-being, and increase climate resilience

KEY ACTIONS

- » **Develop university-wide landscape guidelines** that enhance biodiversity and are adaptive to future climate conditions
- » **Increase tree canopy** to support the City of Baltimore goal of **40% tree cover**
- » **Enhance access and quality of greenspace** at all locations as part of campus planning
- » **Establish the Homewood Campus as a designated arboretum**
- » **All landscape projects for new buildings and major renovations are climate positive**

RESPONSIBLE CONSUMPTION

Reducing waste and responsibly managing materials from procurement through end-of-life is essential to reducing our impact on the environment and improving public health. The most impactful action JHU can take to minimize the consequences of our consumption is to reduce the waste we generate, particularly in Baltimore where waste incineration is a critical health and environmental justice issue. Food waste in particular contributes to greenhouse gas emissions, exacerbates food insecurity, and leads to financial losses. Addressing this and other impactful waste streams will require innovative synergies between behavioral and operational approaches.

Our purchasing choices present a significant opportunity to drive waste reduction efforts and other sustainability goals, and a greater emphasis on local procurement will support the HopkinsLocal vision and broader regional economic partnerships. Students are increasingly interested in healthy and sustainable food options as well as supporting local vendors, growers, and entrepreneurs within our region. JHU recognizes the importance of these impacts and opportunities and is working collectively to shift our culture towards responsible consumption by setting new waste reduction, dining, and purchasing goals.

SECTION 4: RESPONSIBLE CONSUMPTION

GOAL 1

Commit JHU on a pathway to zero waste

OBJECTIVE 1.1

Increase our waste stream diversion to 50% by 2030

KEY ACTIONS

- » **Develop a comprehensive waste reduction and diversion program** aligned with regional zero waste priorities
- » **Measure and reduce total waste** per capita by 10%
- » **Establish university-wide waste management infrastructure standards and data processes**
- » **Implement innovative pilot initiatives** to address areas such as laboratory waste streams and food waste diversion

OBJECTIVE 1.2

Eliminate single use plastics in all dining and retail locations

KEY ACTIONS

- » **Sign the Break Free from Plastic pledge** and launch a university-wide campaign
- » **Eliminate purchases of bottled water** at all dining and retail locations
- » **Expand the use of bottle filling stations** at all campuses
- » **Create recommendations in sustainable purchasing guidelines** for alternatives to single use plastics

OBJECTIVE 1.3

Achieve zero pre-consumer food waste at all dining and retail locations

KEY ACTIONS

- » **Establish compost collection** at all campuses and launch a food waste reduction campaign
- » **Pledge JHU's business support for local composting infrastructure** in Baltimore with community partners
- » **Establish food rescue and donation partnerships** with local non-profits and Hopkins Food Pantry
- » **Implement food waste prevention solutions** and trainings in all dining and retail locations

SECTION 4: RESPONSIBLE CONSUMPTION

GOAL 2

Leverage our food systems to enhance sustainable production, well-being, and local economies

OBJECTIVE 2.1

40% of Hopkins Dining food will be locally sourced, and 35% will meet sustainability standards by 2030

KEY ACTIONS

- » **Work with HopkinsLocal team to identify and promote strategic partnerships** with local farms, food vendors and entrepreneurs
- » **Source 15% of Hopkins Dining prepared foods from Baltimore businesses**
- » **Quantify and reduce greenhouse gas emissions from food procurement by 25%**
- » **Develop a plan and sourcing guidelines** to increase procurement of sustainable and local foods and beverages
- » **Increase plant-forward meal options** and promote healthy, sustainable, and local diets

OBJECTIVE 2.2

Enhance food insecurity programs and policies

KEY ACTIONS

- » **Establish a university-wide food insecurity working group** to evaluate food insecurity among university affiliates and develop an action plan
- » **Develop food swipe share program** to donate extra meals to a campus community swipe bank
- » **Develop and expand meal voucher programs and/or food pantries** for students and employees experiencing food insecurity
- » **Expand vegetable gardens and food production spaces** and partner with local community organizations to share fresh produce with those in need

OBJECTIVE 2.3

Leverage JHU dining programs for translational education and research

KEY ACTIONS

- » **Implement living lab projects in dining** that convene researchers, students, and staff for applied research, education, and innovation
- » **Join Menus of Change University Research Collaborative** to support innovations across the food sector
- » **Establish faculty partnerships for research and student mentorship** to accelerate healthier, more sustainable food choices

SECTION 4: RESPONSIBLE CONSUMPTION



GOAL 3

Foster a culture of responsible procurement

OBJECTIVE 3.1

Adopt sustainable procurement practices and education

KEY ACTIONS

- » **Develop sustainable purchasing guidelines and offer trainings** to support JHU buyers
- » **Leverage procurement platforms** to inform buyers of sustainable products and purchasing criteria
- » **Identify software tools** to measure and report on sustainable purchases
- » **Incorporate sustainability language** in strategic contracts and vendor solicitations
- » **Review sustainability commitments** as part of the vendor management process

TRANSPORTATION & MOBILITY

With campuses located throughout the Baltimore and Metropolitan D.C. region, multi-modal transportation options are essential to the daily lives of the JHU community. Transportation also accounts for 25% of Baltimore's greenhouse gas emissions, and is a primary contributor to regional air quality, making the reduction of these emissions a critical component of JHU's action on climate and environmental justice.

To guide emissions reduction efforts, JHU commits to aligning with regional priorities to transition to zero emission vehicles over the coming decade. Achieving these goals will be greatly supported by the rapid shift of the transportation sector towards electrification, with new models of light and medium/heavy duty electric vehicles entering the market. As a highly visible extension of the institution throughout the region, the electrification of JHU's own fleet can serve as a powerful signal of the university's commitment to sustainability, to be supported by an expanding charging infrastructure network.

JHU also recognizes that supporting sustainable transportation options such as biking, public transit, and other modes has multiple benefits beyond reducing emissions, including enhancing health and wellbeing, reducing traffic congestion, and improving local air and noise quality.

SECTION 5: TRANSPORTATION & MOBILITY

GOAL 1

Increase the use of sustainable transportation to reduce emissions and improve health and well-being

OBJECTIVE 1.1

Reduce greenhouse gas emissions and parking demand from single occupancy vehicles

KEY ACTIONS

- » **Implement a Transportation Demand Management Strategy** that incentivizes alternative transportation such as biking, carpooling, and public transit
- » **Regularly evaluate the impacts** of university policies and benefits that support flexible work and alternative commuting practices
- » **Establish an emergency ride home program** to incentivize alternative commuting practices
- » **Distribute a semi-annual commuter survey** to gather data on employee and student commuting trends

OBJECTIVE 1.2

Expand partnerships to increase the use of sustainable transportation regionally

KEY ACTIONS

- » **Build on regional partnerships** with governmental, advocacy, and community organizations to advance common transportation goals
- » **Formalize and expand JHU's Transportation and Health Work Group** into a university-wide standing committee
- » **Support the City of Baltimore's alternative transportation planning efforts**, such as enhanced bicycle infrastructure and complete streets
- » **Partner with MDOT MTA** to increase the frequency of routes going to light rail, metro, bus hubs, and Penn station

OBJECTIVE 1.3

All newly purchased light duty and passenger vehicles will be all-electric by 2030

KEY ACTIONS

- » **Develop a plan for fleet electrification** based on vehicle class, right-sizing for intended use, and vehicle-retirement date
- » **Establish procurement targets for all-electric vehicle purchases** culminating in a 100% requirement by 2030
- » **Expand electric vehicle charging infrastructure** to support fleet electrification and commuter needs

GLOSSARY

Anthropogenic

Environmental change caused or influenced by human activities.

Built Environment

Human-made environment, including buildings, infrastructure, roads, and walkways.

Carbon Offset

A financial instrument that represents a reduction in greenhouse gas emissions and is used by the purchaser to counterbalance the emissions resulting from an organization's own activities. Types of offsets include renewable energy, carbon sequestration (e.g. avoided deforestation or reforestation), regenerative agriculture, or landfill methane capture.

Climate Adaptation

Steps taken to prepare for and manage the current and future impacts of climate change.

Climate Positive

Going beyond net zero emissions to reduce more greenhouse gas (GHG) emissions than are emitted.

Climate Resilience

The ability to prepare for, adapt to, and recover from the impacts of climate change.

Decarbonization

The process of reducing or eliminating the use of systems that produce carbon dioxide (CO₂) and other GHG emissions.

Ecosystem Services

Direct and indirect benefits to human well-being provided by natural environments (e.g., air and water filtration, pollination, and recreational benefits).

Embodied Carbon

The GHG emissions associated with the construction of a building, including the manufacturing, transportation, and installation of materials.

Environmental Justice

Ensuring that no population bears a disproportionate share of negative environmental impacts and that all communities have the ability to make informed decisions to access and benefit from healthy environments.

Food Insecurity

Not having physical and economic access to sufficient, safe, and nutritious food.

Greenhouse Gas Emissions

Greenhouse gases are gases that trap heat in the atmosphere. These gases include carbon dioxide, methane, nitrous oxide, and fluorinated gases.

Scope 1 Emissions

Direct emissions, on-site from sources owned and controlled by an organization (e.g. natural gas boiler consumption).

Scope 2 Emissions

Indirect emissions, off-site from purchased utilities (e.g. purchased electricity)

GLOSSARY

Scope 3 Emissions

Other indirect, off-site emissions resulting from an organization's activities (e.g. purchased goods, employee commuting, business travel, and waste).

Greenspace

Space that is partly or completely covered with grass, trees, or other vegetation in an otherwise urban environment (e.g., parks, gardens, and green roofs).

HopkinsLocal

JHU's commitment to leverage the economic power of the University and Health System to expand participation of local and minority-owned businesses in construction; increase hiring of city residents, with a focus on neighborhoods in need of job opportunities; and enhance economic growth, employment, and investment in Baltimore through purchasing activities.

Natural Environment

All non-human made, living and non-living, components of our environment.

Net Zero Emissions

Maximizing the reduction of greenhouse gas emissions resulting from an organization's activities, and using carbon offsets to counterbalance only the most difficult to address emissions sources.

Pre-Consumer Food Waste

Food waste such as expired, spoiled, or extra food that is discarded within control of the foodservice operator.

Single Use Plastics

Disposable plastic goods that are designed to be used once before being thrown away or recycled (e.g., plastic straws, bags, and packaging).

Stormwater Management

Efforts to reduce, control, or treat the runoff of rainwater and melted snow and ice in a physical environment.

Transportation Demand Management

Strategies to improve access to transportation options and maximize the efficiency of transportation systems.

Waste Diversion

The process of diverting waste from landfills, including through source reduction, reuse, recycling, and composting.

Zero Emissions

Not adding any GHG emissions to the atmosphere, outside of marginal emissions like backup power.

Zero Waste

The practice of conserving resources and eliminating waste through responsible production, consumption, reuse, and recovery of materials and products.

