
2020 SUSTAINABILITY
ANNUAL REPORT
Our goal is
on the horizon.
BU Wind cuts emissions by 53%
Boston University Sustainability
BOSTON
UNIVERSITY

Table of Contents

ENGIE North America representatives meet with BU Cleantech Club. February 2020. Photo by Daniel Mu, *Daily Free Press*

I am pleased to share Boston University's 2020 Sustainability Annual Report, which covers calendar year 2020 with metrics for FY2020. This year, as we made significant progress on the implementation of the University's Climate Action Plan, the world changed around us in many ways, affecting how we operate and how we think about sustainability at Boston University. In May, the tragic killing of George Floyd gripped the world and profoundly exposed the racist systems that exist in our society. In preparation for the fall 2020 semester, the University pivoted to a Learn *from* Anywhere model in response to the COVID-19 pandemic.

Social justice is one of the three pillars of sustainability, yet historically we have focused more on the environmental and economic pillars. A healthy environment and economy cannot exist without a healthy society. Acknowledging this has caused us to reflect on the inequities inherent in our society and think more deliberately about how we can adopt a more balanced approach to the three pillars of sustainability. During the summer, BU Sustainability launched the "Exploring Environmental Justice" series as a first step to increase our engagement with the social pillar. A great deal of work in this area remains for us, and our team is committed to building this pillar as our program evolves.

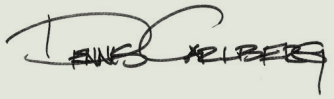
On the COVID front, once it became apparent that the pandemic was not going to be resolved quickly, the University put in place strategies to make the University safe for residential education to resume in time for the fall term. These efforts have been critical and effective for social distancing to reduce spread, while at the same time resulting in increased waste generation and demand on energy. While the University's energy efficiency efforts have produced results, the impact from closing much of the campus in the spring likely provides much of the savings.

Post-COVID, we must bounce forward, not back, creating a new normal to provide a healthier, more equitable, efficient, and carbon-free campus environment for our students to learn and grow, researchers to discover, faculty to inspire, and staff to enable.

In this report, you will find what we are doing to move the University toward a more sustainable future. Here are some highlights:

- Fall 2019: Construction began on the Center for Computing & Data Sciences, the largest fossil-fuel-free, carbon-neutral building in Boston. We conducted a Zero Waste planning process with a task force that included 54 key stakeholders and engaged the entire BU community.
- Spring 2020: The Campus Climate Lab launched, using our campuses as living laboratories for climate action and sustainability.
- Summer 2020: We announced the Anthony Janetos Climate Action Prize to recognize his contributions to the University and award the student whose Campus Climate Lab work has the greatest potential impact.
- December 1, 2020: BU Wind began delivering renewable energy in South Dakota, designed to match 100% of BU's electricity consumption and reduce our emissions by 53%. This is the largest single operating renewable energy project for any university in the EPA's Green Power Partnership.

Boston University Sustainability



Dennis Carlberg, AIA, LEED AP BD+C
Associate Vice President for Sustainability

Preparing for Climate Change

The Climate Action Plan (CAP) recommends the University prepare for the impacts a changing climate will bring to our campuses. This begins with new construction standards to minimize building below what the Climate Action Plan defines as Elevation of Resilience (two feet above the top of the Charles River Dam) and a more comprehensive vulnerability assessment of the Medical Campus, which was found to be particularly vulnerable to flooding.

The Center for Computing & Data Sciences, scheduled for completion in 2022, has been designed for climate resilience. The first-floor elevation is 1.25′ above the Elevation of Resilience. Openings vulnerable to flooding are confined to a small area where temporary flood barriers will provide adequate protection.

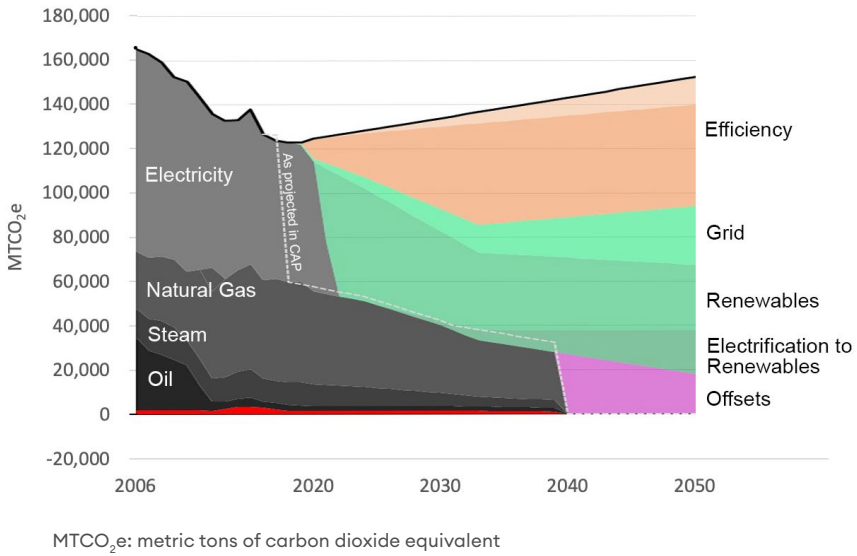
Even before the Climate Action Plan was approved in December 2017, the University began preparing for climate change in new building design. The Rajen Kilachand Center for Integrated Life Sciences & Engineering, which opened in fall 2017, was designed and built with no basement. The mechanical and electrical rooms were elevated to the second and third floors.

Center for Computing & Data Sciences, Design Flood Elevation, courtesy of KPMB Architects.

Net-Zero Direct Emissions

The Climate Action Plan set a goal to be net carbon neutral by 2040. To accomplish this, four emissions reduction strategies are needed in the near term. These include:

1. Reducing energy demand by 31% by 2032
2. Shifting away from fossil fuel use to electricity for heating and cooling in order to enable a transition to renewables
3. Sourcing renewable energy to match 100% of the University's electricity consumption, and
4. Beginning the transition of BU's fleet of vehicles to electric



Closeup of a BU Wind turbine.
Photo courtesy of ENGIE North America.

Reducing Demand

The University continued to make progress on energy efficiency by implementing energy conservation measures. In March, responding to the COVID-19 pandemic, the University moved to a remote learning model for the rest of the spring term. The significant reduction in the population on campus is largely responsible for the reduction of energy consumption in FY2020. The measures implemented during the summer of 2020 to make the campus safe for the return to residential education are expected to result in an increase in energy consumption for FY2021. These measures include the following mechanical ventilation system modifications:

- Increased the volume of air flow
- Increased the amount of outside air introduced to spaces
- Increased air filtration to reduce fine particulates passing through the air-handling equipment
- Altered the schedule for the Building Automation System so buildings run as if they are occupied 24/7
- Disabled Demand Control Ventilation (DCV)
- Increased the effective air change rate in over 600 classrooms and installed over 400 HEPA units where needed

The University's Energy Efficiency Program Manager has engaged the Facilities Management & Operations team to identify specific opportunities for improving energy efficiency, as envisioned in the Climate Action Plan. Projects include:

Heating, Ventilation, and Air Conditioning (HVAC)

- Pipe and mechanical equipment insulation
- Continuous steam trap surveys and repairs
- Brownstone oil to gas boiler conversions
- Adding existing air-handling equipment to Building Automation Systems

Lighting

LED lighting upgrades completed to increase lighting quality and efficiency:

- 179 Amory Street
- 100 Ashford Street
- 285 Babcock Street
- 10 Buick Street
- 25 Buick Street
- 33 Harry Agganis Way
- Walter Brown Arena

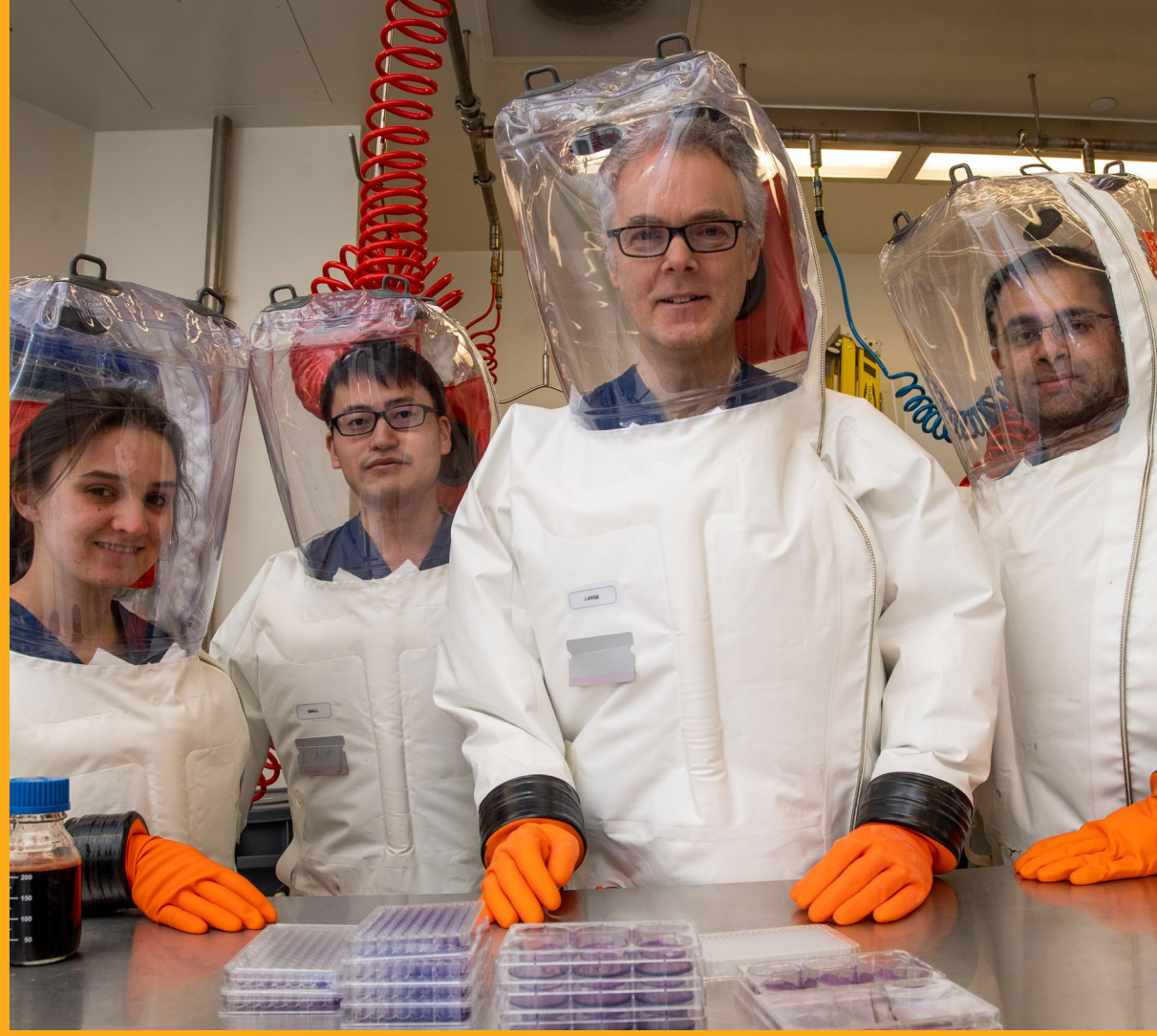
Elijah Ercolino, director of the Facilities Engineering Group, inspects a HVAC air filter on the roof of 1047 Commonwealth Avenue, July 2020. Photo by Benedict Awuah.

Plug Loads

With compressor-based ultra-low-temperature (ULT) freezers using more energy per year than the average American home, a new partnership among the School of Medicine, Operations, BU Sustainability, and Sourcing & Procurement enabled BU researchers to apply for freezer replacements for their labs. In addition to incentives provided by Eversource, the School of Medicine, Operations, and BU Sustainability offered funds to encourage involvement and successfully met the goal of 30 participants. This initiative will help to reduce ventilation energy and electricity use in BU labs.

Projects Currently in Planning and Design

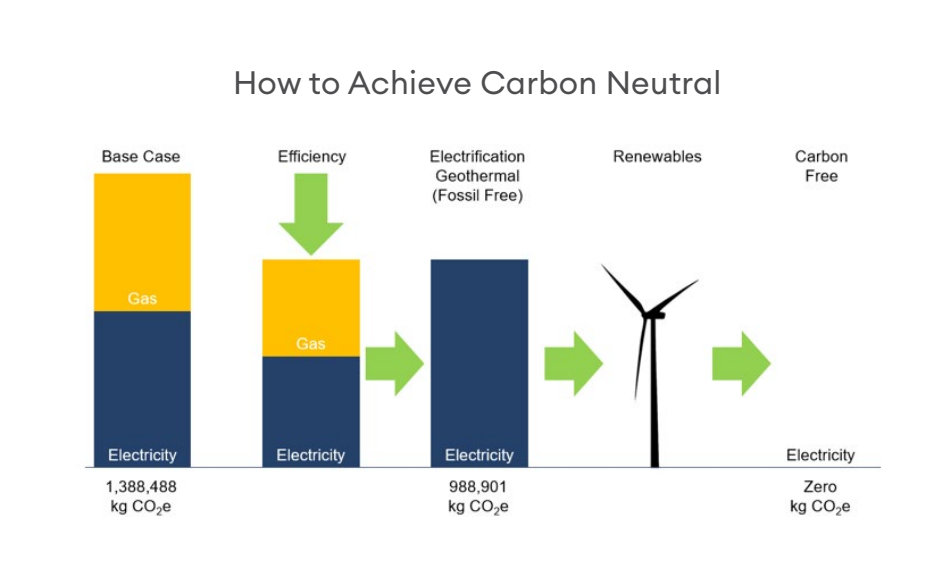
- Conversion of steam absorption on CRC Central Campus to a high-efficiency electric chiller. This will be a transformative project that will lower natural gas consumption and result in a significant reduction in the University's annual greenhouse emissions.
- Retro-commissioning (RCx) of 700 Albany Street. The project has been tailored around an energy-efficient replacement of existing infrastructure with the addition of energy recovery, fuel switching from district steam to natural gas high-efficiency hydronic boilers, and a floor-level HVAC renewal with air change reductions and occupancy-based scheduling.
- Campus-wide feasibility study for solar photovoltaic system deployment.



Researchers at the National Emerging Infectious Diseases Laboratories (NEIDL), March 20, 2020. Photo by Cydney Scott for Boston University Photography.

Center for Computing & Data Sciences – Carbon-Free Building

The Center for Computing & Data Sciences is a leading example for how buildings can be designed and built to operate without a carbon footprint. Energy-efficient design is a necessary first step. Then, rather than burning natural gas for heating and cooling, fossil-fuel–free energy will be provided using the thermal mass of the Earth as a source for heat exchange. This will enable the building to source its energy from BU Wind and be carbon free.

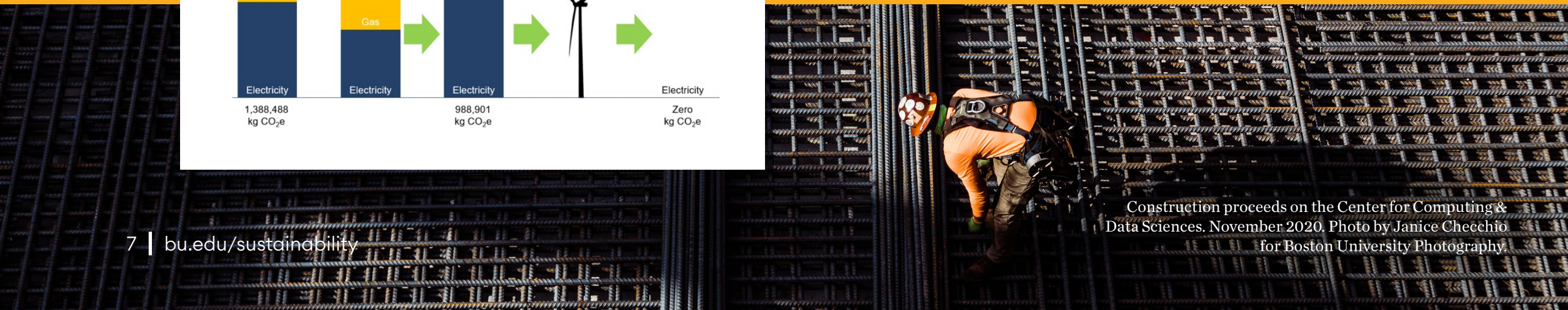


Energy Efficiency

Energy efficiency begins with the building enclosure. The new center is designed with external sun shading to keep the sun's heat out in the summer. The windows have three layers of glass to retain heat in the winter. Maximizing the energy efficiency of the systems used for heating and cooling the building is the next step. The center is designed with an enhanced HVAC system using water, rather than air, to move heating and cooling through chilled beams.

Shifting from Fossil Fuels to Clean Energy

The Climate Action Plan recommends electrification of the energy source used for heating buildings, then sourcing that energy from renewables. To do this, the center uses the capacity of the Earth to store thermal energy from the building and eliminate the need for fossil fuels. This groundbreaking project will be Boston University's most sustainable building yet and demonstrates our leadership on climate action.



Construction proceeds on the Center for Computing & Data Sciences. November 2020. Photo by Janice Checchio for Boston University Photography.

Renewable Energy

Beginning December 1, 2020, with the completion of BU Wind, BU reduced its greenhouse gas emissions by 53% through a power purchase agreement (PPA) designed to match 100% of the University's electricity consumption of 205,000,000 kWh/year. This wind farm is located in South Dakota, where it will have two to three times more impact on greenhouse gas reductions than a similar project in New England. This is because the wind-generated electricity will eliminate the need for coal-fired power plants from coming online. According to US EPA, Boston University's is the largest single active PPA by any of the 126 colleges and universities in the EPA's Green Power Partnership, a consortium of organizations that voluntarily commit to clean power.

As part of the BU Wind project, BU has hosted project developer ENGIE North America at on-campus events, including information sessions with the BU Energy Club, BU Cleantech Club, and the Center for Career Development. In addition, the University has arranged for two paid internships per year for students to gain experience by working with ENGIE. BU Sustainability is also working with Associate Professor of Mechanical Engineering Michael Gevelber to organize a directed study for a group of a dozen students to visit the BU Wind farm in South Dakota and the General Electric wind turbine factory in Florida.

BU Wind at sunset. October 2020.
Photo by Loch & Key Productions.

LEED Buildings

The Climate Action Plan calls for pursuing LEED (Leadership in Energy & Environmental Design) Gold certification for new construction. To date, the University has over 1.1 million square feet of LEED-certified space, of which 89% has achieved Gold certification. In 2020, the Dahod Family Alumni Center at The Castle achieved LEED Gold. Projects currently LEED-registered or pending project completion or certification include:

- Joan & Edgar Booth Theatre and College of Fine Arts Production Center
- 900 Commonwealth Avenue
- BU Children's Center
- Center for Computing & Data Sciences
- College of Fine Arts
- Howard Thurman Center for Common Ground
- WBUR CitySpace

Electric Fleet

Beginning the transition to an electric fleet in the near term, followed by fleet expansion over time as appropriate replacements become available, are goals within the Climate Action Plan. The electric vehicle (EV) fleet pilot study is complete, which includes data for approximately 40 vehicles. BU Sustainability engaged the Center for Sustainable Energy, a national consulting firm and expert in EV markets and incentive programs. The center developed a timeline with recommendations on specific vehicles in the fleet to transition to EV based on age, performance requirements, use patterns, and availability of appropriate replacements. Post-COVID, an incentive program will launch.

> "What I love is that we took an old home and gave it a new life.... One of the major sustainable features that we love is our garden.... In addition to several raised bed gardens, we have blueberry bushes, three apple trees, and a pear tree. It's been amazing during COVID to have all that outdoor space for the children to play and explore."
>
> –Kristin Gruber-Grunert, director, BU Children's Center

BU Children's Center.
Photo by Janice Checchio for Boston University Photography.

Address Indirect Emissions

Zero Waste

The Climate Action Plan recommends that the University establish a Zero Waste goal (90% of our waste would be diverted away from landfills and incineration, including 90% of construction waste). In fall 2019, the University formed a 54-member Zero Waste Implementation Task Force with key operational stakeholders. We engaged the campus community, including more than 400 online survey respondents and over 100 campus forum participants.

Although COVID-19 delayed the presentation of the written report to leadership for review and approval and the formal launch with the BU community, we have made advances toward Zero Waste while addressing COVID-related waste concerns. Most notably, we are expanding access to food waste collection and are standardizing recycling collection in large residence halls, including Warren Towers and West Campus.

In summer 2020, BU earned a Partner Spotlight in the Recycle Smart newsletter issued by the Massachusetts Department of Environmental Protection for our new signage, which conforms to Recycle Smart guidelines. A CFA student employed by BU Sustainability developed BU's new signage.

Zero Waste Campus Forums at BUMC, above, and CRC, below, in 2019. Photos by Melissa Ostrow and Erica Mattison.

Supporting Electric Vehicles

In November 2020, the Massachusetts Executive Office of Energy & Environmental Affairs and the Department of Environmental Protection (MassDEP) recognized BU as a participant in its MassEVolves Program, in support of the transition to zero emission vehicles for operations, employees, and communities. The University has committed to transition its fleet to electric, with a pilot in FY2022.

In addition, MassDEP's workplace charging incentive program has played a crucial role in our continued expansion of EV charging facilities, with BU Parking & Transportation Services conducting more installations. With the increased popularity of EVs, our campus community is taking full advantage of the infrastructure as it expands on our campuses. Eversource's Make Ready program has offset substantial costs and will allow for separate energy metering. Post-COVID, BU Sustainability will support EV adoption by our campus community through awareness efforts and hosting test drive opportunities.

BU is expanding opportunities to charge electric vehicles on its campuses. Photo by Jake Belcher.

Air Travel

The Climate Action Plan proposed piloting strategies to encourage the voluntary purchase of carbon offsets for business travel. BU Sustainability is collaborating with the School of Public Health, Sourcing & Procurement, and our partners in higher education sustainability to design a study. Through the Campus Climate Lab and Questrom MS in Management Studies Program, students are analyzing BU business travel data to understand related emissions, which will lay the foundation for further research.

Curriculum & Research

The Climate Action Plan proposes that every undergraduate be exposed through their educational program to issues of climate change and sustainability. The plan highlights the opportunity for the BU academic community to propose curricula that would delve more deeply into the scientific, economic, governance, engineering, social, and ethical challenges that climate change and sustainability pose to current and future generations.

Sustainability Curriculum

In January 2020, faculty members Cutler Cleveland (Earth & Environment), Emily Ryan (Mechanical Engineering), and Neta Crawford (Political Science) convened a workshop to explore ways to incorporate energy, climate change, and sustainability into every student's education. Team projects within the BU Hub's Cross-College Challenge (XCC) present an additional opportunity for interdisciplinary groups of students to work on developing solutions to sustainability issues. XCC hosted a summer 2020 course related to waste reduction of plastic bottles on campus, specifically concerning developing a sustainable water vessel for use at large-scale events.

Sustainability Research Initiative

The BU Sustainability Research Institute (SRI) is an emerging initiative of the new BU Strategic Plan for 2020–2030. Part research engine and part community catalyst, the SRI will engage the University's diverse talents to tackle grand sustainability challenges through big ideas and applied solutions. The institute will identify places where life on our planet is at paramount risk and co-create solutions that make a real impact on people's lives and livelihoods.

Professor Neta Crawford, at lectern, along with Professors Emily Ryan and Cutler Cleveland, convened the Sustainability Curriculum Workshop in January 2020. Photo by Dave Green Photography.

Campus Climate Lab

As called for in the Climate Action Plan, the University launched a Campus Climate Lab in spring 2020. Led by Associate Professor of Earth & Environment Lucy Hutyra, Vice President & Associate Provost for Research Gloria Waters, and BU Sustainability, this initiative uses the BU campuses as a living laboratory to advance sustainability practices and implementation of the Climate Action Plan. The Campus Climate Lab provides funding to support student research projects and increase interdisciplinary collaboration among students, staff, and faculty. The program runs with three application cycles per year, with presentations led by the participating students at the end of each term. Submissions are reviewed by a panel that then invites a select number of researchers to submit full proposals.

Overall, 34 pre-proposals have been submitted. Of those, three students participated in two separate projects in summer 2020, five students participated in three projects in fall 2020, and numerous students deferred to post-COVID. In all, over $30,000 has been awarded in the first year of the program.

In the summer of 2020, BU launched the Anthony Janetos Climate Action Prize to honor the memory of Professor Janetos and his contributions to BU and the Climate Action Plan. The prize will be awarded each spring to the student or team of students involved in a project through the Campus Climate Lab that is judged to have the most substantial impact on advancing the Climate Action Plan goals and shifting the University toward more sustainable operations.

Sarah M. Garvey (fourth-year PhD candidate, Earth & Environment) installs a ribbonized sap-flow sensor on Bay State Road. The project is a collaboration between students and faculty. Photo courtesy of Lucy Hutyra.

The late Professor Anthony Janetos, speaking at the Climate Action Plan Public Forum in 2017. Photo by Dave Green Photography.

Strategic Plan

In order to increase the University's commitment to and focus on sustainability across teaching, research, and operations, the 2017 Climate Action Plan (CAP) recommends that the University develop and incorporate the CAP into its Strategic Plan. The Strategic Planning Task Force launched in fall 2018. Throughout 2018–2019, there were 42 listening sessions with faculty, staff, and students. The task force established strategic priorities and key initiatives and has solicited feedback from the University community. Sustainability is a new initiative incorporated into the Strategic Plan through curriculum, research, and operations.

Photo by Janice Checchio for Boston University Photography.

Collaborative Catalysts

On Campus

Central to the implementation of the Climate Action Plan is the awareness and involvement of our campus community. The University has a number of channels that engage with a wide array of students, faculty, and staff. The following programs and activities engage thousands in the BU community each year.

School of Public Health leadership: The SPH leadership has determined that sustainability will be an integral part of the school's strategic goals. The newly formed SPH Green Team, chaired by Ira Lazic, associate dean for administration & finance, is currently focused on data collection and community engagement for two key areas: energy consumption and waste reduction.

Resident Sustainability Leaders (RSLs): After a 2019 launch and 2020 expansion, this environmental peer educator program employs students to engage residents in Warren Towers and West Campus.

Orientation Outreach: The Sustainability Ambassadors program is designed to welcome and inform new students during Orientation. The 2020 team, consisting of eight students from various disciplines and backgrounds, organized 12 virtual events throughout the summer to engage incoming students. Varied event times facilitated international participation across time zones.

Sustainability Festival, BU Medical Campus, 2019. Photo by Dave Green Photography.

Environmental Leadership Network (ELN): Through virtual meetings and online communication platforms, BU Sustainability staff built community and provided support to the leaders of 29 sustainability-related student organizations.

Sustainability Liaisons: Currently, 94 representatives from multiple departments across BU campuses are engaged in championing sustainability practices. Virtual meetings and email communications keep the group connected.

Green Department Certification 2.0: BU Sustainability is redesigning the certification to support departments to contribute to the University's climate action and sustainability goals. The Financial Affairs department is a pilot participant, with more departments expected for 2021.

Innovation: BU Sustainability and Innovate@BU partnered for the second consecutive year to offer the Sustainability Innovation Seed Grant Program; 11 student teams representing 8 BU colleges were selected for funding in fall 2020.

Environmental Justice Series: BU Sustainability launched a new online event series focused on exploring various aspects of Environmental Justice, with events in August and November, and more in the works for 2021.

Examples of additional events and presentations BU Sustainability led, co-led, or participated in, geared toward the BU community include:

- Town Hall meetings for the Center for Computing & Data Sciences
- Climate Communicators' Chat events with involvement from BU URBAN, Institute for Sustainable Energy, Department of Earth & Environment, School of Public Health, and more
- Urban Mobility Chat events co-hosted with Disability & Access Services
- Graduate Orientation sessions throughout BU Medical Campus and Charles River Campus
- Commuting for Wellness events co-hosted with Employee Wellness and Parking & Transportation Services
- Events with BU Cleantech Club, BU Energy Club, BU Student Government, BUMC Climate Action Group, BU's National Society of Black Engineers chapter, Student Health Services, and more
- "Starting Your Zero Waste Journey" virtual event as part of Weeks of Welcome, featuring three women business owners

Chris Robinson, Disability & Access Services, co-facilitating Urban Mobility Chat at the BUild Lab. January 2020. Photo by Erica Mattison.

- "Where are we? Climate Action Impact" event as part of Family and Friends Weekend
- City Planning & Urban Affairs Co-Lab Week panel, featuring area urban and transportation planners

Cross-Sector Collaboration

Leadership

The Climate Action Plan recognizes that BU's preparation for the impacts of climate change is closely tied to the climate resilience of the broader community, and that adaptive strategies by government agencies and other key stakeholders in Boston and Brookline have an immediate impact on the University. In addition to engaging locally, BU Sustainability builds relationships nationally and internationally to expand peer learning opportunities.

Boston Green Ribbon Commission (GRC): BU Associate Vice President for Sustainability Dennis Carlberg cochairs the GRC Higher Education Working Group with Jaclyn Olsen, associate director of the Harvard Office for Sustainability. In 2020, BU Sustainability staff presented at two GRCx Climate Action Exchange interactive virtual events: "Urban Geothermal to Electrify Heating and Cooling" and "Procuring Renewable Energy to Maximize Emissions Reductions." GRCx is an interactive virtual program series designed to accelerate the implementation of the City's Climate Action Plan.

City of Boston Emissions Reporting Standards: Dennis Carlberg's involvement with the City of Boston includes serving on the Technical Advisory Group for the new Carbon Emissions Performance Standard for existing buildings (which replaces the Building Energy Reporting and Disclosure Ordinance) and advising the Boston Planning & Development Agency on opportunities to integrate renewable energy.

Dennis Carlberg leads sustainability tour for American Meteorological Society Conference attendees. February 2020. Photo by Erica Mattison.

University Climate Change Coalition (UC3): As one of the 22 Tier 1 research institutions, BU participates in sharing emerging and best-practice, place-based, cross-sector action on climate resilience and mitigation.

BU/MIT/Harvard Best Practices: The three sustainability offices meet two to three times each year to share best practices and explore collaborative opportunities. Topics include: racial equity, electric vehicle transition, Zero Waste, and strategic procurement.

Community Engagement and Thought Leadership: BU Sustainability staff have led presentations for a variety of audiences such as the Sustainability Student Leaders Symposium hosted by Southern New Hampshire University, and an international group from the

American Meteorological Society. The Center for Computing & Data Sciences is demonstrating that carbon neutrality at scale is possible. After the December 6, 2019, groundbreaking event with Mayor Martin J. Walsh highlighting the forthcoming largest carbon-free building in Boston, on December 11, 2019, Mayor Walsh signed an executive order that all new municipal buildings will be carbon free.

Renewable Energy Best Practices: With the power purchase agreement (PPA) completed for BU Wind to match 100% of Boston University's electricity consumption, BU Sustainability has led workshops and forums to demystify how to execute similar contracts and share the lessons learned. Through these efforts, 17 institutions, corporations, and cities are pursuing large-scale renewable energy PPAs with ongoing guidance from BU. In particular, Washington University in St. Louis is using the marginal emissions model BU developed with the Azevedo Lab at Carnegie Mellon University and WattTime to maximize greenhouse gas reductions.

National Best Practices Sharing: The BU Sustainability team engages in workshops, panels, and other activities to share best practices. Examples include:

- Global Conference on Sustainability in Higher Education sponsored by the Association for the Advancement of Sustainability in Higher Education (AASHE) on topics including sustainable purchasing, renewable energy, Zero Waste, racial equity and social justice, and sustainability reporting
- Society for College and University Planning (SCUP)
- Second Nature's 2020 Higher Education Climate Leadership Summit
- University Climate Change Coalition (UC3)
- Sustainable Purchasing Leadership Council (SPLC)
- Ecological Society of America
- Green Cleaning panel sponsored by St. Louis Higher Education Sustainability Consortium
- Environmental Business Council of New England (EBC) Climate Change Leadership Webinar Series

Racial Equity and Social Justice: Both internally and externally, members of the BU Sustainability team are engaged in issues pertaining to racial equity and social justice. For example, Data Manager Stephen Ellis has played an active role in racial equity and social justice work with AASHE's Diversity, Equity & Inclusion (DEI) Committee. The DEI Committee is comprised of sustainability professionals who advise on strategies, policies, and practices that advance diversity and inclusion in the higher education sustainability sector and AASHE's programming. Within BU, Ellis serves as the vice chair of the Faculty & Staff of Color Community Network, which is a part of the larger Faculty & Staff Community Networks (FSCNs). The FSCNs foster and promote a healthy and supportive culture for individuals engaged with issues related to diversity, equity, inclusion, justice, and full participation within the BU community. Through our communications, BU Sustainability amplifies racial equity and social justice thought leaders.

Campus Growth

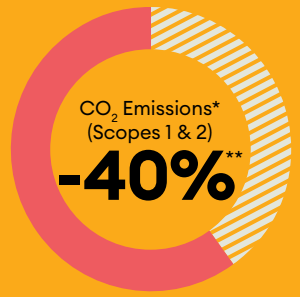
From FY2006 to FY2020, BU campus facilities grew 13% totaling 15.2 million square feet.

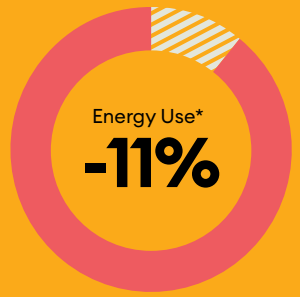
METRIC	% CHANGE	FY2020	FY2006	UNIT
RESOURCES				
CO_2 Emissions *(Scopes 1 & 2)*	**-40%**	99,155	165,435	$MTCO_2e$
Energy Use	**-11%**	1,598,901	1,794,256	MMBtu
Oil	**-94%**	27,497	444,113	MMBtu
Natural Gas	**+60%**	783,208	487,998	MMBtu
Steam	**-13%**	154,829	178,326	MMBtu
Electricity	**-7%**	633,367	683,819	MMBtu
Energy Use Intensity (EUI)	**-21%**	119	150	kBtu/sf
Water Use	**Not Available*	**Not Available*	435	MMgal
WASTE				
Generation	**-20%**	**8,747**	10,961	tons
Diversion	**1167%**	**38%**	3%	%

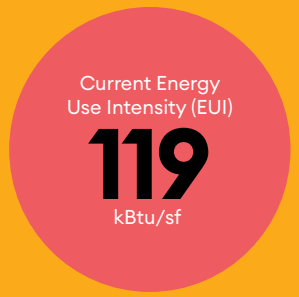
By the Numbers continues on the next page.

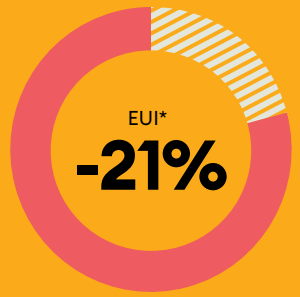
*Data from Boston Water & Sewer Commission not available for FY2020

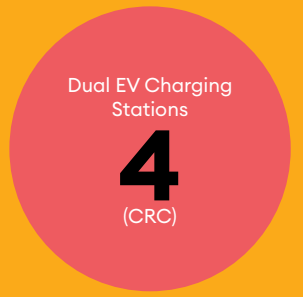
By the Numbers FY2020

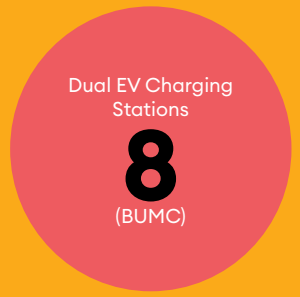


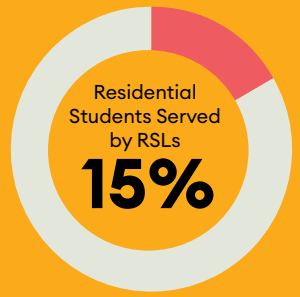












*Changes are in relation to an FY2006 baseline.

**The significant reduction in the University's greenhouse gas emissions this year cannot be completely attributed to BU's efforts. Emissions from electricity production in Massachusetts dropped considerably in the last year for three reasons: 1) modifications in the methodology used by MassDEP to calculate emissions factors, 2) changes in regulations on producers, and 3) electricity generation has in fact gotten cleaner.

Opening reception of the new Howard Thurman Center on January 21, 2020. The major renovation at 808 Commonwealth Avenue is an example of BU's commitment to building reuse. Photo by Jackie Ricciardi for Boston University.

BU

Boston University Sustainability

bu.edu/sustainability