

Sustainability Metric Update

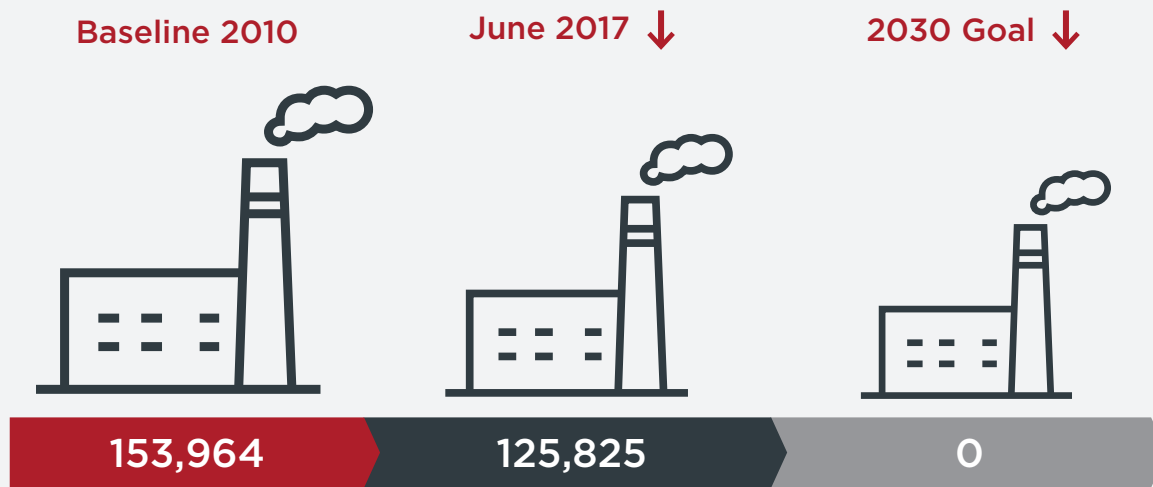
2017

The University of Nebraska Medical Center and Nebraska Medicine (the Medical Center) have built a strong foundation in sustainability over the past two decades. To continue this effort, the Medical Center has six sustainability goals. This report is a progress update on the sustainability goals.



Emissions

Goal: Net zero building emissions by 2030

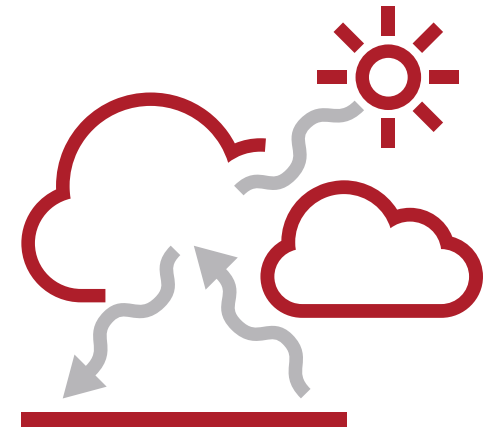


All measurements in metric tons of carbon dioxide equivalent



Department of Energy Better Buildings Challenge

Concurrent to the Emissions goal, the Medical Center has also pledged a 20 percent energy reduction by 2020 as part of the Department of Energy Better Buildings Challenge.



Greenhouse Gases

Efforts to reduce emissions have led to a cumulative reduction of 179,000 metric tons of carbon dioxide, equivalent to the annual emissions of 19,300 homes.

Energy Efficiency Review

As part of the Better Buildings Challenge, the Medical Center's energy usage was entered into Portfolio Manager, a program that tracks and analyzes energy use over time. With this newly available data, leadership met to identify the least energy efficient buildings. Action plans are now being developed to improve the energy efficiency of those buildings.

Energy Curtailment Program

This summer, the Sustainability Office and LiveGreen Ambassadors worked hard to engage the entire campus in reducing peak energy demand. Peak energy refers to the amount of electricity being used at the time of highest usage. Reducing peak saves significant amounts of electricity and keeps costs lower.



Emissions

The Medical Center's emissions goal focuses on emissions created by energy use for buildings. This year, progressive steps were taken to make buildings more efficient and reduce energy use.

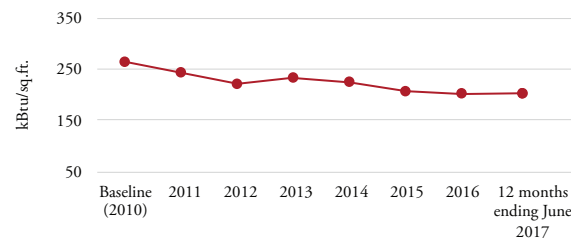
Since 2010, emissions and energy use per square foot are lower, even with the addition of the following buildings:

- Lozier Center for Pharmacy Drug Discovery
- Lauritzen Outpatient Center
- Fred and Pamela Buffett Cancer Center

Lighting Upgrades

LED lights have several benefits over fluorescent and incandescent lighting, as they are up to 90 percent more energy efficient. The efficiency leads to less heat being emitted, reducing cooling needs.

Annual campus energy efficiency

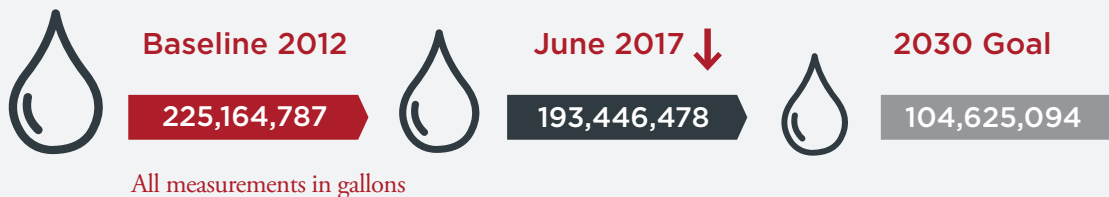


Lights in part of Annex 10 and several floors of the Durham Research Center were recently retrofitted to LEDs. Moving forward, LEDs will be the standards for all new buildings and renovations, resulting in significant energy and financial savings.



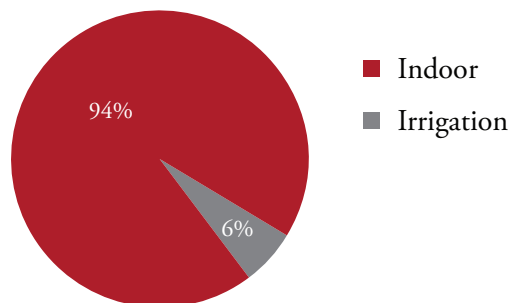
Water

Goal: Reduce water use by 54 percent



Building water use accounts for the majority of water use on campus (see below). The Medical Center has ongoing efforts to reduce water use.

Water Usage By Type



Landscaping

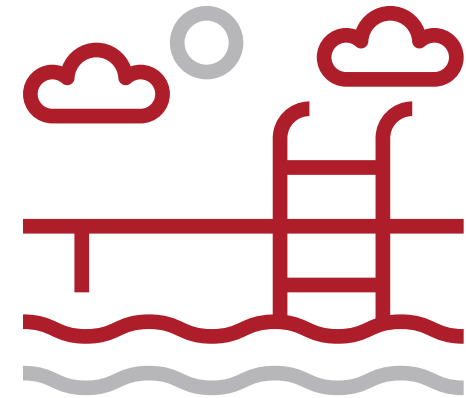
The Medical Center continues to incorporate water sensitive landscaping while still maintaining an attractive campus for staff, students, and visitors.

Ornamental plants and bushes with mulch, instead of turf grass, inhabit much of campus. These plants are more attractive than turf grass and require less water. Campus rain gardens improve landscape and ecosystem health.

Central Utility Plant and Leaks

Facilities Management is diligently working to run the Central Utilities Plant as efficiently as possible, saving a considerable amount of water.

Facilities is also reviewing the water system on campus to proactively identify and repair leaks to dramatically reduce the amount of water and steam lost on campus.



Water Reduction

The cumulative water reduction is 189,600,000 gallons, or 287 Olympic-sized swimming pools.



This campus rain garden helps capture stormwater and recharge groundwater, improving landscape health and the local ecosystem.





Materials

Goal: Zero Waste by 2030*



Landfill

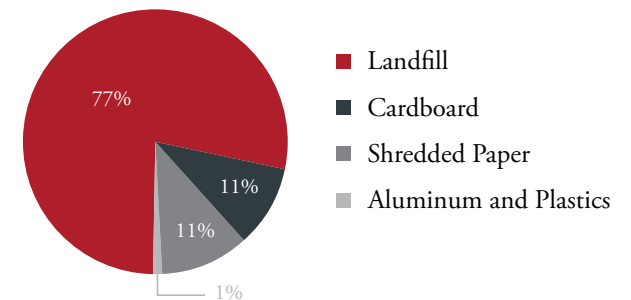
Waste reduction and recycling efforts have led to 2.1 million pounds of materials not going to the landfill since 2012.

Earth Day 2017

Earth Day 2017 was another success! Over 14,000 pounds of materials were recycled, including shredded paper, TVs/Monitors, VHS tapes, and other electronics.

Outgoing Materials by Weight

Material categories as of July 2016 to June 2017



Baseline 2012

June 2017 ↓

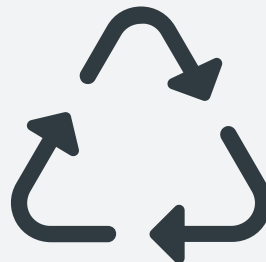
2030 Goal ↑



25%



23%



90%

Waste Characterization Study

To have a better understanding of what is included in the waste stream, a waste characterization study is underway in late 2017. The results will give campus leadership a better understanding of the available opportunities for waste reduction and increased recycling.



*Defined as 90% diversion from the landfill



Materials

The Medical Center is a uniquely complex organization, making the 90 percent diversion rate an especially ambitious goal. Below are several ongoing and new initiatives working to meet this goal.

Single-use battery recycling

Single-use battery recycling began in 2013. Since then, over 19,000 pounds of batteries have been recycled. Approximately 4,500 pounds of single-use batteries are recycled each year, about half of the single-use battery use on campus.

Lab Recycling Pilot

Laboratories are spaces with specific recycling streams. Due to this specificity, new recycling signs and bins were piloted in Cancer Center labs in 2017 to help increase their recycling rates. If successful, these bins and signage will be distributed to the rest of campus laboratories.

Recycling

With the opening of the Fred and Pamela Buffett Cancer Center, there has been significant movement of staff. Although the 2017 recycling rate is below the baseline, the total volume of materials recycled has actually increased, which is explained in part by the movement of staff to new offices. The recycling increase reflects the changing culture at the Medical Center to make waste reduction a priority.

LiveGreen Ambassador Campaign

The LiveGreen Ambassadors ran an eight-week “Waste Less, Recycle More @ Lunch!” campaign to promote recycling lunch related items. The campaign included encouragement, contests, and educating staff on what can be recycled.



Campus Density

The Campus Density goal helps the Medical Center build a campus that is dense while creating green spaces that enrich the campus for visitors, students, and staff.



GOAL: Maintain the baseline campus density



All measurement are in square feet per acre

This goal also encourages the Medical Center to build on its existing land and reduces campus sprawl into the surrounding neighborhoods.

The density metric is the amount of building and parking garage square feet per campus acre. Quality green space is an asset to the people on campus and is encouraged through this goal.

There are three ways for the Medical Center to make progress on this metric:

- Reduce the total acres
- Increase the amount of green space
- Increase the amount of square footage

The Fred and Pamela Buffett Cancer Center is an example of increasing density without using additional land, as this building replaced an existing building. The ongoing plans for the Medical Center will continue to improve the campus density while striving to create an exceptional environment for our students, staff, and visitors.

Tree Campus USA

The Medical Center's efforts to achieve Tree Campus USA Certification from the Arbor Day Foundation helps to ensure the Medical Center campus continually incorporates green space. The Medical Center has received the Tree Campus USA Certification since 2013.

Infrastructure Plans

The Campus Density goal is considered during infrastructure planning to integrate building, green space, and campus design.





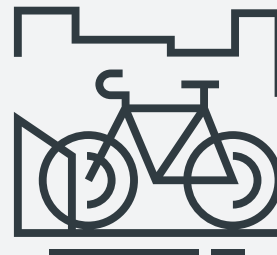
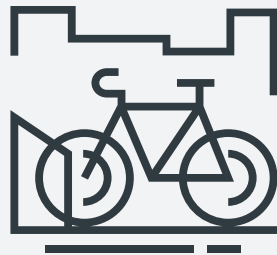
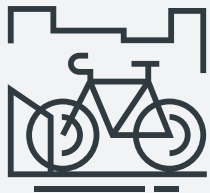
Transportation

Goal: 20% of employee commutes are walk, bike, transit, or carpool

Baseline 2012

Oct. 2017 ↑

2023 Goal ↑



12%

22%

20%



Med Center on the Move

The Medical Center promoted “Med Center on the Move” in the spring of 2017, concurrent with the Midtown on the Move program. Staff and students were encouraged to switch one trip a week from driving alone to walking, biking, taking the bus, or carpooling. An additional 120 participants joined TravelSmart during the “Med Center on the Move” program.



TravelSmart participants have access to free bus rides to and from campus.



Community Leader

The Medical Center continues to be a community leader. Since the inception of TravelSmart, several Omaha organizations have either implemented their own version of TravelSmart or have taken steps toward supporting active commuting in Omaha.





Transportation

The Medical Center exceeded its transportation goal six years early. This exciting achievement has remarkable positive impacts for the environment.

Over 29,000 miles of single-occupancy driving miles are avoided weekly due to the alternative transportation use, reducing the amount of air pollution by 700 tons of carbon dioxide a year. Cleaner air is healthier for staff, students, patients, visitors, and the community.

TravelSmart

With over 14,000 staff and students traveling to campus daily, the Medical Center campus has a significant impact on the traffic and air quality in midtown Omaha. To manage the impact, the Medical Center uses the TravelSmart program to reduce road congestion and pollution, promote healthy lifestyles, and preserve infrastructure.

TravelSmart promotes active transportation — walking, cycling, riding the bus, and carpooling — with an Emergency Ride Home program, numerous bike racks and indoor bike parking, locker rooms and showers, flexible daily rate parking, free bus rides, and a free parking for carpoolers.

TravelSmart Participation Growing

There are over 2,000 registered TravelSmart participants. The LiveGreen Ambassadors promote TravelSmart registration by providing information on active commuting through sending emails, using active transportation, and speaking with personnel in their areas. TravelSmart is part of recruitment packages, as a active transportation can help attract and retain staff and students. Registration has been consistently growing in the two and a half year history of TravelSmart, showing an ongoing interest in the program.



The Medical Center has abundant bike infrastructure on campus, complete with numerous bike racks, lockers, and shower rooms. An online bike maps helps staff, students, and visitors identify the best place to store their bike while on campus.





Campus Engagement

Goal: Sustainability engagement score of 75

Baseline 2012

Oct. 2017 ↑

2023 Goal ↑



45

59

75

On a scale of 1-100

Sustainability Engagement Score

Beginning in 2012, the Medical Center has undertaken a Sustainability Engagement Survey every two years to measure campus engagement with sustainability. The online survey measures sustainability knowledge, awareness, and behaviors of Medical Center employees and students. The 2017 Sustainability Engagement Score is 59, a substantial improvement from the 2012 baseline of 45. The campus is well on its way to achieving its goal of 75 by 2023 and has several initiatives underway to expand sustainability engagement.



What is Campus Engagement?

The Campus Engagement goal is a metric that measures the extent to which the Medical Center staff and students are engaged with sustainability efforts.





Campus Engagement

Earth Week

The annual Earth Week celebration in April included a host of activities to help individuals recycle or manage waste and learn about the TravelSmart program and other initiatives on campus. Earth Week featured the ever-popular “Repurpose It Contest,” where individuals are invited to create something from repurposed materials, an electronics recycling and paper shredding event, a tree planting and seedling giveaway, and a Sustainability Expo including representatives from dozens of community environmental organizations and campus initiatives.

LiveGreen Ambassador Program

The LiveGreen Ambassador program was launched in 2016 as a way to spread sustainability initiatives throughout the Medical Center culture. Any interested employee can fill out a brief application to become a LiveGreen Ambassador. Two training sessions are held each year where LiveGreen Ambassadors learn about the Medical Center’s sustainability efforts, brainstorm new ideas, and build solidarity with one another. Throughout the year, LiveGreen Ambassadors are invited to engage their coworkers about current sustainability initiatives at staff meetings, via email, or around the water cooler. The peer to peer interactions help create a culture of sustainability campus-wide.

The LiveGreen Ambassador Program undertook multiple campaigns during 2016–2017, including:

Waste Less. Recycle More.@Lunch Campaign

This eight-week campaign in November and December 2016 asked employees to recycle all of their recyclable lunch materials at least two days per week. Over 120 staff members took a pledge to waste less and recycle more at lunch.

Energy Curtailment Campaign

The energy curtailment campaign began in June 2017. The purpose of this campaign was to ask employees to engage in a range of behaviors to save energy to reduce peak energy demand. Those behaviors included closing blinds, turning off lights, taking the stairs, closing fume hoods, using the stairs instead of elevators, turning off electronics not in use, charging devices after 7pm, keeping doors closed, and avoiding unnecessary use of automatic doors.



The Sustainability Expo had another successful year during Earth Week 2017. Guests learned how to be more sustainable at the Medical Center and new information on multiple sustainability projects in the community.



Medical Center

Sustainability Metric Update 2017

Emissions

GOAL: Net zero building emissions



All measurements in metric tons of carbon dioxide equivalent

Campus Density

GOAL: Maintain the baseline campus density



All measurements in square feet per acre

Water

GOAL: Reduce water use by 54%



All measurements in gallons

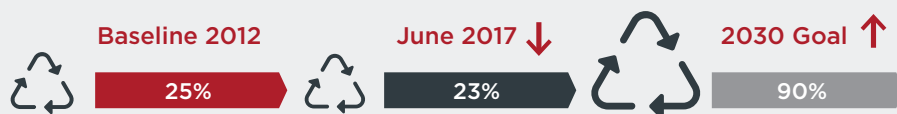
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Materials

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Campus Engagement

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On a scale of 1-100