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Facilities Management
UNIVERSITY OF COLORADO **ANSCHUTZ MEDICAL CAMPUS**

CU Anschutz Sustainability Newsletter

January 2024

Happy New Year from all of us in the CU Anschutz Facilities Management and Planning department! Today we are excited to debut the inaugural edition of the CU Anschutz Sustainability Update, the first of what will become quarterly updates to our shared CU Anschutz Medical Campus community. As good stewards of our resources, sustainability has always been important to us, but in an ever-changing world it has come to encompass so much more than simply burning fewer fossil fuels or carefully monitoring our energy use. It now touches virtually everything we see or use during our daily routines; from water to waste streams, lighting and heating our homes, the types of cars we drive, how we design and build the places we work, even to where we procure the raw materials, goods and services needed to run our complex campus.

We have exciting information and programs to share with you, but even more importantly we need your help! We have some very audacious goals, and it will take a campus-wide effort to reach them. Please consider giving feedback on our efforts, or even better reach out to volunteer to help us with some of our initiatives. After all, we will never have the best Green Labs program without the help of our amazing Research colleagues!

Thanks in advance for taking the time to read about what we're doing, and hopefully for lending a hand to make CU Anschutz a leader in Sustainability.

Cheers!
Jay Campbell
Associate Vice Chancellor
Facilities Management and Planning


Campus Safety and Emergency Preparedness Building - our first Net-Zero Energy Facility

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Colorado Legislative and Climate Action Landscape

Over the past several sessions at the Colorado capitol, the state legislature has been active in addressing climate change policy by setting aggressive goals on state agencies, including higher education, and the business community to address cutting Greenhouse Gas Emissions (GHGs) and Energy Use intensity (EUI) from facilities. CU Anschutz has been complying with these new protocols by placing all our facilities' energy and GHG data into the EnergyStar Portfolio Manager. This allows us to track and monitor our data in real-time and more effectively plan for projects that will assist in meeting goals.

The latest GHG Reduction goals come from SB23-016 which calls for the following reductions from our GHG baseline:

- 26% reduction in greenhouse gas emissions by 2025
- 50% reduction in greenhouse gas emissions by 2030
- 65% reduction in greenhouse gas emissions by 2035
- 75% reduction in greenhouse gas emissions by 2040
- 90% reduction in greenhouse gas emissions by 2045
- 100% reduction in greenhouse gas emissions by 2050

Energy Use Intensity, or energy used per square foot, reduction goals were established by HB21-1286 and require the following reductions from a 2021 baseline:

- 7% reduction in average EUI by 2026
- 20% reduction in average EUI by 2030

CU System Strategic Plan Goals

The CU System has also developed sustainability and climate action goals as part of the CU System Strategic Plan created in 2020. This plan has differing goals for each CU campus to meet by 2026 and includes its own GHG and EUI reduction goals. These goals are a 15% reduction in GHG emissions (2019 baseline) and a 10% reduction in Energy Use Intensity (2019 baseline).

Other strategic goals include a commitment to 5% on-site renewable energy generation, transition 20% of fleet vehicles to electric, as well as the development of an Energy Master Plan and a new Climate Action Plan.

Energy Master Plan and Climate Action Plan

To assist the University in long-range planning for these many goals from the state and the CU System, we are in the early stages of developing two plans that will assist in meeting these goals. The University is starting the development of an Energy Master Plan (EMP) that will define strategic, prioritized energy strategies. The EMP will also define CU Anschutz's Sustainability and Energy Resiliency goals as they relate to energy, to support campus greenhouse gas reduction and resiliency in a financially viable manner. The expected strategies will include energy efficiency planning, conservation measures, continuous facility optimization, operations improvements, occupant engagement, and renewable energy. The plan is intended to serve as a long-term living document.

The Energy Master Plan (EMP) will serve as a tool for the campus to deploy 21st century energy strategies and solutions, meet its greenhouse gas (GHG) reduction goals, meet all relevant state laws, statutes, and guidelines, and serve the university's core mission of education and research. This effort will start in January 2024 and is expected to take six months.

The Climate Action Plan (CAP) will be developed alongside the EMP and will similarly be set up as a phased approach to energy and GHG emissions reductions, as well as other natural resource use reductions. Building on the strategies for energy production and conservation from the EMP, the Climate Action Plan will also address transit/commuting, space utilization of facilities, water use, waste diversion, education, curriculum & policy, and sustainability in labs & research. We expect this effort to involve the larger campus community as we need expertise and input from across the campus.

Campus Projects of Note

CU Anschutz Bundled Energy Projects

Since 2020, Facilities Management has been working on Energy Conservation Measures (ECMs) across several facilities that will improve operations, resiliency and efficiency while helping meet near-term goals for GHG reductions. By bundling these ECM's, the University can typically take on more projects and those with greater savings and payback can assist with justification for other important ECMs that may not have the desired savings and payback. While the scope of projects has been reduced due to inflationary costs on construction and materials, we are proceeding with several that will help cut annual GHG emissions by around 5,000 Metric Tons. We hope to tackle the other ECMs as funding is available in the future.

Parking Lot Lighting

If you have been here in the evening or early morning, you may have noticed brighter parking lots and garages. Facilities Operations has upgraded the Monte Vista, Breckenridge and parts of the Aspen and Breckenridge lots to LED light

fixtures which provide a 200% increase in lumens (brightness) while saving energy operational costs (they last longer) and reducing CO2 emissions by 9.5 metric tons (MT) per year.

A similar project in the Henderson Parking Structure provides a 163% increase in lumens and saves 16 MT-CO2 per year. Facilities Operations continues to upgrade lighting around campus to increase safety and decrease resource consumption.

Parking Lot Asphalt Recycle/Reuse

Speaking of parking lots, you may have been forced to park elsewhere this past summer and fall while some of the parking lots were resurfaced. Apologies for the inconvenience, but the new parking lots are very nice – and they come with their own recycle/reuse story. All the asphalt millings from the old surfaces are to be reused in the Rock lots on the north side of campus to create an improved surface for parking. Over 2,000 tons of millings were recovered from these lots, which avoids the transportation of the materials to an asphalt recycling facility and associated GHG emissions from transport. Parking lot projects will continue in the spring, and we will add more to these diversion numbers.

Electric Vehicle Charging Infrastructure and EV Fleet Replacement Progress

We continue to grow our EV infrastructure on campus with the addition of another Chargepoint Level 2, dual-port unit in the East Overflow lot, bringing our total to six Level 2 EV charging spots in the lot. We will keep expanding our Level 2 infrastructure for the general campus community as resources allow.

As part of Facilities Management goal to replace 20% of fleet vehicles with EVs by 2026, we are also building Level 2 EV infrastructure at the Campus Services Building. This project will bring more power to the parking lot and enable an EV charging island to be constructed, currently designed to support 16 vehicles.

On the Electric Vehicle purchasing front, we currently have one E-Transit van in service for the Electrical Group, and we have one truck and two more vans on order for other groups in Facilities Management. We hope to keep this progress going as resources and more vehicles become available.

Glove Recycle Labs Pilot

Fisher and Kimberly Clark have helped several labs on campus start a glove recycling program. To participate, only Kimberly Clark gloves can be recycled but they have 6 types of gloves (plus other PPE and eyewear) that can be purchased. Each lab collects the gloves and then takes the gloves to a large box on the RC2 dock. When this box is full, Fisher Scientific ships the box to a facility where it is recycled and then reports back to the university with waste diversion data. You can see more about the PPE recycling process here: https://www.youtube.com/watch?v=CKErnDwoG0I

For more information, or to get your lab involved, contact Raul Hernandez: raul.hernandez@thermofisher.com

Composting Pilot and Waste Diversion Signage

The University has been proud to partner with Wompost (https://www.wompostcoop.com/) to initiate composting at some dining facilities on campus. Compost collection is taking place in Research 2, AHSB and Education 2 and we hope to grow collection of compost to other facilities across campus over time. Compost is an important part of our waste diversion efforts, coupled with Recycling collection. We hope to keep growing our waste reduction efforts and volume. In that light, we have also created new signage for our waste stream that is still going up across campus. It is important to adhere to the instructions on the signage when placing items in the waste streams.

Contamination of the bins, especially Compost, will discount the loads at the compost facility and it will become landfill waste. Please help us keep the streams clean and please let us know of questions or suggestions as we improve these processes.

Stormwater/Regulatory Information

Illicit Discharges - What are they and why are they important?

An Illicit Discharge is any discharge of pollutants or non-stormwater materials allowed to enter the storm sewer system from overland flows or direct dumping of materials into a catch basin. 83% of Colorado's drinking water comes from stormwater runoff, so keeping contaminants out of our stormwater not only protects the environment but also protects our communities drinking water supply. Examples of illicit discharges include sand and dirt from construction sites, dumping or washing out into stormwater drains, chemical, oil, and fuel spills, fertilizer and pesticide runoff, pet and lawn waste as well as trash and debris. As the campus expands and renovates, construction projects also create the potential for illicit discharges. Disturbances that are not contained, tracking dirt into streets and improper concrete and paint washout are all ways that construction activities can potentially contaminate our waterways. If you see something, say something! If you observe an illicit discharge, please report it on our website . At the bottom of the Facilities Management website in the footer is a link to "Report an Illicit Discharge". Our Regulatory and Compliance Manager will investigate all reported incidents and take any necessary action to ensure that we are protecting our waters.

I²SL Space Utilization Award - School of Medicine and Facilities Management

The School of Medicine was awarded the Space Utilization Award from the International Institute of Sustainability in Labs (I2SL) in the fall of 2023. In late 2021, the Dean of the School of Medicine along with the Director and staff of Planning and Facilities, set out to better understand the use of lab space in 5 research buildings. It was understood that past allocation of space was no longer viable and a new approach for determining use and to maximize utilization of research space was needed. This "Clean Out" project commenced to engage the research community on a new, more granular efficiency assessment approach that would look at the concept of different space needs for different types of research as opposed to the historical approach of assigning lab space to match research expenditures. What followed was the evaluation and the "cleanup" of 44,000 square feet to decrease clutter and organize, dispose of unused legacy equipment, look for opportunities to share resources, upgrade to more efficient equipment, and to dispose of abandoned or unwanted biological materials and chemicals. This process involved several internal (notably, Facilities Management and EH&S) and external partners and can serve as an example of an innovative laboratory sustainability project to promote efficiency in labs that avoids major investment in technology or construction. In fact, it prevents the need to construct new lab spaces on the campus which assists in greenhouse gas mitigation efforts and the University's commitment to reducing its impact on climate change.

Spring Events

We have the following events coming in 2024 and you can stay updated with events, projects, planning (and to reach out) by going to https://www.cuanschutz.edu/sustainability.

We appreciate the entire campus community's efforts towards sustainability and welcome ideas, suggestions and encourage you to be involved!

- CU President's Sustainable Solutions Challenge – March/April 20

- Earth Day E-Waste Collection – April

- Bike to Work Day – June 26, 2024