Published on *University of Colorado* (https://www.cu.edu)

2021 Sustainability Report [1]

Campus Sustainability Resources

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CU has a longstanding commitment to fostering sustainability system-wide as well as leading the state in such efforts. More than a decade ago, the CU Board of Regents passed a Sustainability Resolution directing the university president and chancellors to incorporate Leadership in Energy and Environmental Design (LEED) standards in construction projects wherever possible; develop comprehensive plans to reduce greenhouse gas emissions; and incorporate the mandates of the Governor's Climate Action Plan into each campus' efforts to attain climate neutrality.

As this report outlines, the university continues to surpass these goals, but it cannot afford to become complacent. Recognizing this, CU doubled down on its commitment to fostering sustainability by making it a significant component of its 2021 strategic plan and creating goals to be achieved by 2026 including further reducing our greenhouse gas emissions by 15 percent from 2019 emission levels as well as energy consumption in campus buildings by up to 10 percent from 2019 levels.

Download the full Report (pdf) [5]

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Greenhouse Gas Emissions

The University recognizes greenhouse gas emissions as a major contributor to climate change. Greenhouse gas emissions measure the amount of gas (including carbon dioxide, methane and water vapor) released into the atmosphere. A greenhouse gas is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation. The unit of measurement is metric tons of carbon dioxide equivalent or MTCO2e.

As part of its 2021 strategic plan, CU set a goal of reducing GHG emissions 15 percent from 2019 emission levels by 2026. The following chart illustrates the change in GHG emissions from each campus' baseline year through 2019, as well as the 2026 GHG reduction goal selected by each campus through 2021 strategic planning.

Energy Consumption

The University of Colorado measures its energy consumption by calculating the energy use intensity (EUI) of its buildings. The EUI expresses a building's energy use as a function of its size and is expressed as kBtu per square foot. A building's EUI varies based on the age, condition, and use of a building.

Through its 2021 strategic plan, the University set a goal of reducing its energy use consumption (EUI) in campus buildings by up to 10 percent from 2019 levels by 2026. The University began tracking and reporting its EUI in the mid 2000s. Through a concentrated effort to improve the energy efficiency of its existing and newly constructed buildings, all four campuses have seen a measurable decline in EUI since tracking began. The chart below shows the reduction in EUI from each campus' baseline year4 through the 2026 EUI reduction goal established through the University's 2021 strategic plan.

Solar Production

In order to further its sustainability goals, the University also seeks to offset its energy consumption through the production of renewable energy and the purchase of renewable energy credits.

To date, the campuses have installed a total of 21 (3,482 kWh) solar panel systems. In the most recent year data was collected, these systems produced about 3.5 million kWh – enough to power 323 average American homes for a year.

LEED Buildings

The University adopted a goal of building and renovating buildings to the Leadership in Energy and Environment Design (LEED) Gold standard in 2007. LEED is a set of best practice standards established by the U.S. Green Building Council to promote sustainable building design and construction. The 2021 strategic planning process evaluated and upheld this goal.

Since 2007, the State has constructed or renovated 160 LEED-certified buildings. More than one-third of these LEED-certified buildings were built by CU, including 10 LEED Platinum certified buildings, the highest of the four certification levels.

Water Consumption

The University recognizes water as a key resource in the health of the state's climate and economy. While the 2021 strategic plan does not set water consumption goals, the four campuses recognize water as a finite resource and track and report on water use annually, with a common goal of limiting overall water consumption.

The campuses limit potable water consumption through conservation measures such as the installation of low-flow toilets and replacing autoclaves and glass washers in labs. At UCCS, the Science Engineering Building was designed to use 42 percent less water than a comparable baseline building. On the Boulder campus, the Green Labs program has saved 54.4 million gallons of water over the last decade. The campuses also limit water use for landscaping by planting native plant species and installing irrigation controls and rain sensors. As a result, water consumption has declined both overall and at each campus during the last decade.

Waste Diversion

The University of Colorado promotes sustainability through waste diversion, thoughtful purchasing decisions, and creating an infrastructure that supports reuse, recycling, and composting.

The University tracks and reports on the amount of waste that is diverted from the landfill through recycling and composting. It sponsors on-site recycling and composting programs and works with student groups to promote and increase compliance. The Boulder campus has a waste diversion goal of 90% by 2025 and the UCCS campus has a waste diversion goal of 70% by 2030.

Transportation

The University of Colorado promotes the use of alternative modes of transportation and the use of alternative fuel vehicles to reduce GHG emissions from travel to and through its campuses.

ThThe University promotes sustainable practices in transportation in the commute to and travel on its campuses. It is continuously developing infrastructure that supports alternative fuel vehicles and multi-modal transportation. It also participates in community programs that support public transportation. As part of CU's 2021 strategic plan, the campuses have committed to transitioning traditional fleet vehicles to alternative fuel vehicles.

Campus	2026 Commitment

CU Boulder	Convert 17% of bus fleet to battery electric buses by 2026 (4 of 24 buses).
CU Denver	Transition all vehicles to electric at next replacement cycle or by 2026.
CU Anschutz	Transition 20% of fleet vehicles to electric by 2026. Doesn't include bus.
UCCS	Replace one diesel bus with an electric bus every 5 years.

What's Next?

The 2021 Strategic Plan afforded a unique opportunity for the four campuses of the University of Colorado to discuss and collaborate on sustainability goals, which were included in the Pillar 4: Fiscal Strength section. The individual campus efforts in the last decade are remarkable and should be celebrated. To continue as leaders in the fight against climate change, more work is needed to define a clear path to carbon neutrality. The University will revise and revisit its sustainability goals in 2026. In the interim, it will also work to do the following:

- finalize energy master plans, audits, and assessments and identify opportunities for energy performance service contracts;
- conduct thorough life-cycle cost analyses of potential capital projects to identify first costs, environmental costs, and energy savings opportunities and to reduce operations and maintenance costs;
- go beyond LEED Gold and look for opportunities to incorporate net-zero energy consumption measures in its building design;
- maintain a strong emphasis on funding deferred maintenance projects, with particular attention to making improvements that increase efficiency and reduce GHG emissions; and
- integrate environmental sustainability goals with social and economic sustainability goals.

Learn more about the 2021 Strategic Plan. [6]

Sub Title:
The University of Colorado is committed to the long-term goal of carbon neutrality.

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