



PRESS RELEASE

Mountain Challenge achieves carbon neutrality at MC's Crawford House

FOR IMMEDIATE RELEASE

April 19, 2022

Contact: *Steve Wildsmith, Social Media Specialist*
865.981.8468; steve.wildsmith@maryvillecollege.edu

Maryville College's Crawford House, home of Mountain Challenge, has been recognized over the years for its energy efficiency and sustainability, but this week the organization's director announced another milestone: carbon neutrality.

An environmental achievement in which the 19th century farmhouse balances the energy consumed with that it produces via solar panels, carbon neutrality is an important step in positive climate action, said **Bruce Guillaume '76**, the founder and director of Mountain Challenge, an outdoor adventure and team-building corporation that operates on the MC campus.

It's also an achievement that happened completely by accident, Guillaume said.

"Last August, we were really busy with orientation, and it's when people are in and out of the building all the time, and doors get left open," he said. "In August, I spend a lot of my time running around closing doors behind everybody, but this past August, I said forget it and just turned off the (air conditioning)."

Based on the independent studies of two MC environmental studies students in 2016, he already knew how much energy the house consumed, he added, and when he received the report for August of 2021, he was astonished to discover that without the AC running constantly, the energy consumed was almost equal to that produced by the house's solar panels.

"We did it again in September, basically until we got to the cooler season, and that's when I realized we might be closer than I ever thought to being carbon neutral," he said. "To be truly carbon neutral means using 100% renewable energy, but it takes baby steps to get there."

To calculate an organization's carbon footprint, he said, online calculators can be used that take into account energy consumption, green space use and other factors. Beginning in 2009, Mountain Challenge personnel have worked diligently to improve the house, built in 1876 and donated to the College in 1986. Improvements include the installation of gas and water meters for measuring usage, custom Low-E storm windows, efficient and appropriately sized HVAC units, soy-based foam insulation, linoleum (linseed-based) flooring, a solar hot water system, edible landscaping such as an orchard, a garden and berry bushes and a 12-panel solar array.

In 2012, the Tennessee Preservation Alliance granted Crawford House an East Tennessee Preservation Award, and the following year, the U.S. Green Building Council certified the building as a LEED (Leadership in Energy and Environmental Design) Gold status house, making it the oldest structure in Tennessee and the second oldest in the country to receive such a designation.

Those improvements, Guillaume said, meant that the carbon calculations over the years have remained steady, and to earn a carbon neutral designation, any overage can be paid to a certified offset organization. Mountain Challenge, however, will pay that difference — about \$400, Guillaume said — to a local carbon neutral panel, and the goal is to take additional steps to get that amount down to zero.

“We’re going to put maple trees on campus as the first part of that plan, and the other part involves having a plan to ultimately move to being on 100% renewable energy,” he said. “For the heating season, we decided to turn the thermostat down, and we bought two space heaters that we can plug in, if we want to have a meeting or a warmer space.

“In the measurement of all of this, I learned that we were giving about a third of our solar production back to the City of Maryville, because we have no ability to store it. So on a sunny, cool day, when we’re heating with natural gas, all that solar energy is doing is running computers, a refrigerator and maybe a light, but the rest was going back to the city.”

To be 100% renewable, additional solar panels will be needed, as well as a way to store the energy for future use. But the first step toward carbon neutrality, he said, comes from the agreement by all involved to dress appropriately in warmer or cooler times. Case in point: Turning the thermostat down last winter reduced Mountain Challenge’s natural gas dependence by 40%. Space heater usage increased electricity consumption by 7%, Guillaume said. Given that roughly 33% of the Crawford House’s collection of solar power on a sunny day is going back into the Maryville grid, that’s still a surplus.

“When you look at your footprint, and then you come up with the plan to reduce it, the first part of it just involves human behavior — which for us is turning the thermostats up or down,” he said. “The next phase will be addition to the building.”

Guillaume and his staff will hold a public announcement of the carbon neutrality achievement at 1 p.m. Friday, April 22, at Crawford House on the MC campus. The event is free and open to the public.

For more information, contact Guillaume at bruce.guillaume@maryvillecollege.edu

Maryville College is a nationally-ranked institution of higher learning and one of America’s oldest colleges. For more than 200 years, we’ve educated students to be giving citizens and gifted leaders, to study everything, so that they are prepared for anything — to address any problem, engage with any audience and launch successful careers right away. Located in Maryville, Tennessee, between the Great Smoky Mountains National Park and the city of Knoxville, Maryville College offers nearly 1,200 students from around the world both the beauty of a rural setting and the advantages of an urban center, as well as more than 60 majors,

seven pre-professional programs and career preparation from their first day on campus to their last. Today, our 10,000 alumni are living life strong of mind and brave of heart and are prepared, in the words of our Presbyterian founder, to “do good on the largest possible scale.”