

Clemson University is currently involved in the use of harmful environmental practices such as the reliance on natural gas and coal for energy sources, encouragement of consumption through the many fast food and stores on campus, and issues with transit alternatives (discussed later). Despite this, Clemson is taking measures to reduce their environmental impact, such as their implementation of a “Net Zero Goal”, designed to create a carbon neutral campus by the year 2030. This means achieving zero net carbon emissions by balancing carbon dioxide released with an equivalent amount of renewable energy. This can also be accomplished by planting trees and designing high energy efficiency buildings. Clemson has already made progress towards the Net-Zero goal with its construction of Lee Hall III, which has the potential to generate 100% or more of its own energy through use of geothermal power and photovoltaic cells. Many other buildings on campus also have achieved this status. Clemson also implements practices like composting, recycling, and public transit.

Despite this progress, there is more room for improvement. The total carbon footprint of CU’s main campus in 2014 was calculated to be 95,000 metric tons CO₂-e. 49% of GHG emissions were from electricity activities, fossil fuel dependent activities were 18%, steam generation 16%, and university related travel 13%. This information was gathered through personal research and through speaking with Clemson’s Energy Manager, Thomas Suttles.

Three Areas of Improvement

1. Solar power parking lots



By relying on solar power for a portion of the campus energy usage, we can cut back on greenhouse gas emissions and environmental destruction caused by reliance on nonrenewable fossil fuels. Parking lots are the perfect location for these panels because it avoids clearing land for solar panel farms. There are many parking lots on campus that cover very large areas. Because these parking lots are already paved over, there is no need to remove any trees in the process of setting up these panels. In addition, we could implement charging stations for electric vehicles and provide incentive to utilize these vehicles by giving them priority parking spaces. The cost of this project is high; however through advertising opportunities and optional fees for those who support this parking method could be implemented to help reduce the cost.

2. Implement more organic and sustainable food sources on campus. Clemson eliminates a lot of food waste through composting and recycling. However, a great amount of trash, plastic, bottles, and styrofoam are consistently thrown away into landfills as a result of students’ heavy consumption of fast food and to go products from stores like Starbucks and other food chains. Clemson seems to always be adding a new restaurant that makes the campus seem more appealing. For example, there are three Starbucks on campus, a Chick-Fil-A, Raising Canes, Which Which, Twisted Taco, and just about every fast food chain you can think of just a few miles away. Clemson makes access to fast food very easy through apps like Tapingo and Tigers Togo, which allow students to pre-order their food and have it delivered. Providing some more sustainable alternatives would be beneficial, as well as reducing (or eliminating) vending machines, such as what Sterling College did.

3. Make public transit and vehicle alternatives easier. The design of campus makes it hard for students to use bicycles to commute to class, as the campus has many narrow pathways, stairs, and hills that are not practical for bicycles to fit or ride on. In addition, it is virtually impossible to commute to class without a car when living off campus. The free bus system is often unreliable and complicated to use, and the transit system is only available at certain times of the day. Making it easier to bike on campus would improve traffic and eliminate greenhouse gases generated by vehicles.

Sources:

http://tigerprints.clemson.edu/cgi/viewcontent.cgi?article=3738&context=all_theses

<https://www.clemson.edu/sustainability/commission/net-zero.html>

<https://cleantechnica.com/2010/08/03/solar-power-transforms-parking-lots-into-green-job-generators/>