Energy Audit Assignment

After completing the energy audit, I was surprised how much power my lifestyle requires and how large my carbon footprint is. If I exclude the amount of fuel I use at work over the weekends, my carbon footprint amounts to approximately 13.43 tons of CO2, and including my work, this amount would increase to 18.97 tons of CO2. To offset these amounts, I would have to pay $167.23 and $237.56 respectively. The biggest contributor to my footprint, bar none, would be transportation. This came to almost the entire sum of my electrical needs for the year, and that doesn’t include the transportation and operation of any machinery at work. As for my electricity use, the biggest contributor would be the servers I operate. I have divided the total wattage of the server bank by the average number of simultaneously active users throughout the week (3), and it was still near the top of the list. After that, the biggest contributor was the window fan in my dorm that I leave on 24/7. Breaking down each appliance I have at college, I believe my usage patterns are in line with most other students with the window fan being the highest followed by my television, media player, and personal computer. When I include the servers run from Pittsburgh that I maintain daily throughout the week, my usage skyrockets and is atypical. If I were to reduce my carbon footprint, I could definitely cut back on leisure trips and instead walk to closer places. In addition, I could turn my fan off when I am not in the room and possibly turn off my computer instead of leaving it on all day. These things would greatly reduce the power I need to maintain my lifestyle. In addition, I could look into more energy efficient computer hardware to bring down the cost of running the servers.

Finally, in my opinion, the best action Allegheny could take to get students to reduce their electricity consumption would be to increase transparency. By showing students the monetary cost of powering the college annually, it would give the students a better idea of why tuition costs are what they are and how much their lifestyles impact these numbers. If the college wanted to force energy consciousness instead of recommend it, the best way to do that would be to bill students for utility usage per room. As for whether I recommend either, I believe transparency is key and would really like to see this completed. Billing for utilities would be able to accomplish a goal of energy consciousness but I believe that would cause heartache and cause other complications for the college such as increased operating costs dealing with the management of this billing.