

# Customer Challenges

- High humidity
- Retrofitting Thermostats in Old Buildings

## The Challenge

Meet Sean F., the university's Facilities Energy Coordinator and Facilities Liaison to the University's Sustainability Department. With his background in facilities technology, Sean's responsibilities include tracking utility usage, identifying negative energy usage trends, and reversing those trends.

In this region of the country, high humidity is a challenge, often causing mold, mildew and air quality problems. "We have a lot of older residence halls which were retrofitted with air conditioning. Keeping them cool isn't an issue. Keeping them DRY is an issue."

So when Sean joined the University, one of his first assignments was to solve the high humidity issue. Sean quickly realized that "hideously expensive" equipment replacement was not the solution. A more practical solution lied in the thermostats they could use. Sean initially found a thermostat company that claimed to have the solution. He was disappointed when those thermostats simply did not work as advertised. Sean explains, "the system we started to install didn't work. Literally, we hooked it up and it did not function. So we made them take all their stuff back."

## The EcoSmart Solution

"I went to Telkonet and said hey, can you set me up with 20 rooms right now? We have to do something in the summer and these other guys aren't working out. So we did. It worked great right out of the box." That was back in 2013. Since then, the University has installed more than 1300 thermostats, with more planned for the future.

The next year the University installed the EcoSmart Solution in 3 buildings.

Sean was given an initial budget to resolve the humidity problems for one building. Thanks to Sean's decision to use the EcoSmart solution, the cost to address the humidity issues for all three buildings was a mere 27% of the amount budgeted for a single building.

"We had to figure out how to fix the humidity and mold problems and save energy while we were at it. With EcoSmart, we managed to do both so that's pretty sweet."

## EcoCentral

Summer and winter breaks are the 2 windows of opportunity to freely access rooms, and knowing exactly which equipment requires maintenance is highly efficient.

One of Sean's favorite features in EcoCentral is the Battery Life Indicator.

Sean also monitors Set Point Differential in EcoCentral. By sorting this data, "it's really nice to have all your problems right at the top, so to speak. You can then go to those rooms and find out what's going on."

## "I Never Expected That"

"Another interesting benefit I never expected is that we used to have to change fan coil unit filters every three months. By using Telkonet system and going with a pleated filter instead of a cheap filter, we change them now once a year. It used take several guys several days to change all those filters. Over a course of a year that's tremendous savings in and of itself. I never expected that."

# Major University in North Carolina

Ranked in the top 25% of national residence hall buildings for energy savings



## Project Facts

1300 Thermostats in 20 Residence Halls	
Annual Cost Savings	<b>20%</b>
Applied Technologies	
- EcoWave Package	
- EcoContact Door Contacts	
- EcoSense Occupancy Sensors	
- EcoCentral Subscription	
Installation Date	<b>2013</b>
Annual Savings	<b>\$114,400</b>

*"What got my attention initially was EcoSmart Recovery Time, a technology I thought was pretty smart. When there's nobody in the room, the technology actually calculates how much time it will take to recover, and sets the temperature based on that calculation. With everybody else, you pick your set temperature and it may or may not be optimum."*

**-Sean F.**  
**University's Facilities Energy Coordinator & Facilities Liaison to the University's Sustainability Department**