Abbey Solar Field: One Year of Data

It has finally been one year since the Saint John’s Abbey Solar Farm underwent its latest installment. Last January, the Solar Farm was expanded to include 616 additional solar panels. The new panels are fixed at a 35 degree angle facing south and will allow the Solar Farm to produce more than 600 kilowatts of electricity, which is enough energy to power up to 30 percent of our campus in peak conditions! While the electricity produced is perhaps the most obvious benefit, it is not the only one.

The new panels have also given the Saint John’s Office of Sustainability the opportunity to conduct research on the difference in efficiency between fixed and tracking panels. Tracking panels rotate only east and west as they follow the sun moving across the sky, which is thought to improve efficiency. The site is the first in Minnesota to offer a side-by-side comparison between the two technologies since the original panels were tracking and the new ones are fixed. The past year of data is displayed in the graph below. Overall, the tracking panels proved to be more efficient during the summer months when the sun is higher in the sky and hitting the tracking panels at a more direct angle. However, in the winter it is a different story and it is the fixed panels that become more efficient.

In the Northern Hemisphere winter, the sun is lower in the sky because of Earth’s tilt, which causes the fixed panels to be at a more direct angle to the sun leading to greater efficiency. This small study is one of many possible research opportunities for the Saint John’s Abbey Solar Farm. If there are any students interested in using the Solar Farm for a class project and would like more information contact the Saint John’s Office of Sustainability!
Winter Greenhouse

SJU’s winter solar greenhouse is in full operation this winter season. The solar greenhouse is under the management of our two Eco houses and has already had several harvests this winter! The SJU greenhouse a passive solar greenhouse meaning that it does not require any mechanical or electrical devices to heat it. Just passive solar radiation! Even if the outside temperature is a frigid 0 degrees Fahrenheit the inside of the greenhouse will remain warm enough for plants to grow!

Recyclemania

This winter Saint John’s will be competing against many colleges and Universities from around the nation in an 8 week recycling competition called Recyclemania! The competition is starting the week of February 7th and will go all the way through the end of March! SJU will be rated against other schools based on our total weight of recycling per person. The ultimate goal of the competition is to get students and faculty to be more conscious about campus recycling. If you have any questions about what can and cannot be recycled contact the SJU office of Sustainability, or check the website.

Lets get out there and recycle!

Sustainability Fellow Job Position

The Saint John’s Office of Sustainability is led by a fellow who serves a one-year term. Fellows are typically a recent CSB/SJU graduate with a passion for sustainability. The job is a full-time, paid position. The duties of a fellow are quite diverse. Tasks can include organizing campus events, speaking in classrooms and community events, publicizing SJU’s sustainability initiatives, completing progress reports, and more.

The application for the 2016-2017 fellow position will be posted early this semester. Look for it on our website, the CSB/SJU bulletin board, and in your student email.