

Reduce Electricity Use: The 2019 ORF/ORS Green Team Initiative

The ORF/ORS Green Team chooses an initiative each year to support sustainability at the NIH. The 2018 initiative focused on improving the recycling rates in NIH cafeterias and they are back this year with a new target! In 2019, the ORF/ORS Green Team will focus on reducing electricity use across the NIH Bethesda campus. In July of last year, the Bethesda campus consumed 27,352,832 kilowatt-hours of electricity at a cost of \$2,489,152. We can each do our part to reduce electricity use one small step at a time. The ORF/ORS Green Team has created four simple tips, as listed below, that will allow each of us to start making a difference.

Buy Energy Star Certified Products. For years, the Energy Star program (from the EPA) has been the leader for finding energy efficient products to use at home. Energy Star continues to grow and now certifies laboratory equipment as well, including lab grade refrigerators and freezers. Energy Star certified products can consume as little as half the amount of energy when compared to a standard model. Buying Energy Star certified products is required whenever they are available. Just look for the Energy Star label (to the right).¹



Turn off and Power Down. Turn off computers and equipment when leaving for the day and shut off lights before leaving a room. This is even more important for laboratory equipment, which can consume five times more energy than office equipment. Labs attempting to prioritize energy conservation should turn off laboratory equipment at night whenever possible.

Take the Stairs. The Department of Energy National Renewable Energy Laboratory conducted an energy study in Massachusetts General Hospital (MGH). The results from this study showed that elevators at the Massachusetts General Hospital consumed 371 MWh/year, which accounted for 1.4% of the hospital's total energy consumption.² Although this may seem like a small percentage, it would still represent a large amount of energy for the Bethesda campus. Getting active and taking the stairs has the joint benefits of improving your health and helping the environment.

Join the NIH Freezer Challenge. Freezers are some of the most energy intensive pieces of laboratory equipment.² A single older and unmaintained Ultra-Low Temperature (ULT) freezer can consume 14,500 kWh per year in electricity and cooling requirements, costing the NIH approximately \$1,600 per year. There are currently 3,300 ULT freezers in service at the NIH, so the energy consumption and costs are significant. Join the NIH Freezer Challenge to increase the reliability and reduce the energy consumption of the freezers in your lab. [Click here](#) to learn more!

These four tips are only a few examples of the many ways we can reduce electricity use at the NIH. We would greatly appreciate feedback from NIH staff about the ways they have reduced their electricity use while on campus. Please email green@od.nih.gov with your accomplishments!