

# SUSTAINABILITY NEWS

*Hello readers! After a short hiatus, the Sustainability Newsletter is returning in a different format: shorter, more focused, and hopefully easier to read. This week's focus: the upcoming Freezer Challenge!*

To continue contributing to a more sustainable campus, the Chemistry Sustainability Committee will be working with the LSA Office of Campus Sustainability to organize this year's Freezer Challenge for Chemistry! The Freezer Challenge is an international initiative led by My Green Lab.

Last year, nine labs participated, yielding a total of **38.5 kWh/day of savings**, equivalent to **27,505 miles driven by an average gasoline-powered vehicle**. The main steps to take part in this challenge are as follows:

- Conduct preventive maintenance (defrost, clean coils).
- Inventory samples & remove unnecessary ones.
- Upgrade to energy-efficient models (when needed)
- Retire old or unnecessary cold storage (share with others if space allows).

More information about the Freezer Challenge can be found at the following website:  
<https://freezerchallenge.mygreenlab.org/landing>

## What we need from you right now:

Each lab will need to nominate one representative and enter the requested information by clicking the link attached to this newsletter or scanning the QR code on the right. **Do NOT sign up for the Freezer Challenge on the MyGreenLab website.**

Like last year, we will treat participants to a celebration afterwards!!



## DID YOU KNOW?

The major source of our energy savings last year were from the Keane Lab, where they changed the temperature of their -80 °C freezers to -70 °C instead. Many labs that store biological samples tend to store their samples at -80 °C, but **storing your biological samples at -80 °C only buys an extra ~5 minutes of storage time if your freezer were to stop working.**

To facilitate the Freezer Challenge, the Office of Campus Sustainability left us a checklist of actionable items that can be completed to prepare for the walkthrough, color-coded based on ease and time commitment. This, as well as a QR code linking directly to the document (<https://docs.google.com/document/d/125MgkPvo4M1pnavz3V7V8uKUCejzxHnkeNWuUi7Z-Qg/edit?usp=sharing>), can be found below:

Thank you for signing up for a Freezer Challenge walkthrough on May 27th with the Office of Campus Sustainability and Innovation. The Freezer Challenge scorecard is simply an audit of your cold storage units and anything your lab may have done for preventative maintenance, materials management, temperature tuning, and retirements/upgrades since August 1, 2025.

Below is a *suggested checklist of actions* you can take (but *none are required* for your walkthrough on the 27th). You get points for these actions, but you are not penalized for actions you do not take.

Green = Low Effort

Yellow = Medium Effort

Red = High Effort



#### Preventative Maintenance

- Defrost your freezers ([LSA has a spare freezer](#) you can borrow and it comes with materials needed for a defrost)
  - OCSI also has a [freezer defrost kit](#) you may rent.
- Chip and brush out built-up ice and frost, ensuring that the gasket has a tight seal
- Vacuum condensers and coils, removing dust

#### Materials Management

- Implement a temperature monitoring system
- Create a sample map and updated inventory system
  - OCSI has a [sample map template](#) you can use and tailor to your specific units (both chest and upright units)
- Cleanout unneeded samples from past experiments or graduated students
- Purchase and use high density sample boxes (9x9 or 10x10 internal dividers vs. [12x12 internal dividers](#))

#### Temperature Tuning

- Raise your -80°C unit to -70°C. Learn more [here](#)
- Assess what needs to be at -80/-70 and what might be upgraded and stored at -20°C or even at room temperature

#### Retirements/Upgrades

- Sometimes organizing your cold storage units can result in a spare that is no longer needed. Consider retiring it or simply leaving it unplugged
- If you need to purchase a new freezer, make sure it is an energy efficient unit, usually Energy Star

If you have any questions, please email [sustainable-labs@umich.edu](mailto:sustainable-labs@umich.edu) for support.