

CALTECH ENERGY ASSESSMENT FOR LABORATORIES (CEAL)

The Caltech Energy Assessment for Laboratories (CEAL) looks specifically at laboratory equipment energy consumption. The main objective of this program is to evaluate lab equipment and research lab procedures that will help to assist researchers in reducing lab energy consumption. Other objectives include identifying and documenting lab energy best practices, assisting partner labs in identifying additional opportunities for improvement in lab energy consumption, and facilitating collaboration and dissemination of energy conservation measures and best practices across the Caltech campus labs.

RESULTS & PROGRESS



Laboratory in Schlinger, a LEED Gold Certified building

Preliminary data from 11 labs on campus show that computers, freezers, and vacuum pumps are the most common types of laboratory equipment found in Caltech labs. Freezers appear to be the most energy intensive lab equipment followed by furnaces/ovens, incubators/shakers, and vacuum pumps. Laboratory best practices focus primarily on the operations of the above listed laboratory equipment as well as on behavior changes for lab occupants.

To learn more about CEAL, please read out [progress report](#).

Special thanks to our lab participants

- Caltech Optical Observatories (COO)
- Ion Microprobe Facility
- Lewis Research Group
- Mayo Lab
- Molecular Materials Research Center (MMRC)
- Newman Lab
- Orphan Lab
- Proteome Exploration Laboratory (PEL)
- Rossman Lab
- Social Science Experimental Laboratory (SSEL)
- Sternberg Lab

