

Energy Efficient Labs

*Labs use, on average, 1.5 times the energy of office spaces per year.
Follow the below tips to reduce lab energy consumption.*

Switch off

Turn off equipment, lights and computers when not in use. When purchasing new equipment, ensure they come with an off switch.

Air conditioning

Close doors and windows to trap conditioned air. Only run air conditioning during operational hours. Email pfasst@pf.uq.edu.au to reschedule set operational times or to see if an out-of-hours button is an option.

Dash the sash

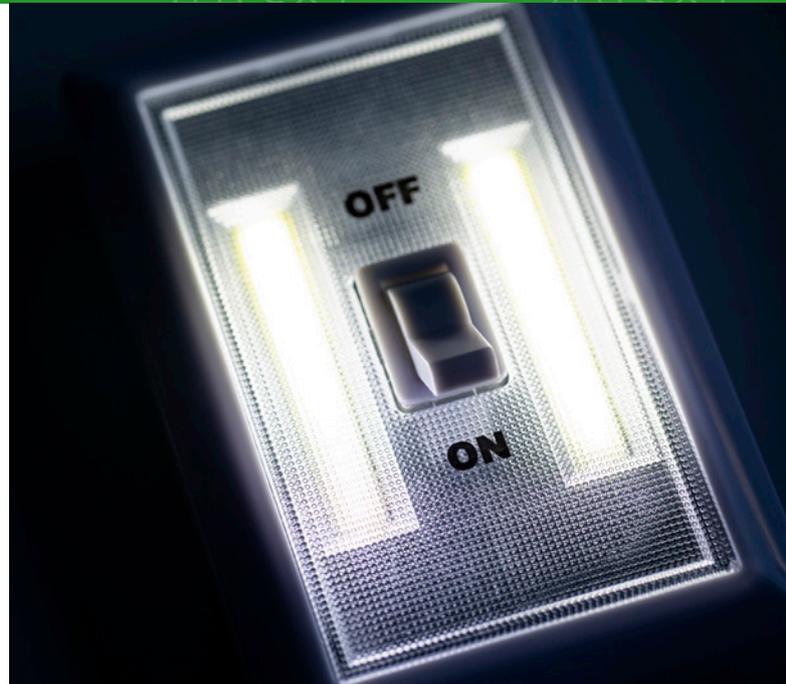
The sash is the protective barrier between the experiment and the researcher. For some cupboards, when the sash is open, air is drawn through and out of the cupboard at a higher rate. Close the sash when not in use and keep it low during operation.

Biological safety and laminar flow cabinets

These cabinets provide sterile air, via a high-efficiency particulate air (HEPA) filter, and are very energy intensive. Ensure they are turned off when not in use and UV lights are not left on for extended periods after use.

Lighting

Switch off lighting during the day if there is sufficient natural light. Use task-level lighting to direct light to where it is needed, rather than lighting large areas. Label light switches for targeted use. Use compact fluorescent bulbs and remove unnecessary lighting if area is over lit. Suggest small infrastructure changes to P&F or contact OH&S for a light audit.



Equipment preparation

Do not heat up equipment for longer than needed. If the manufacturer's specifications do not identify warm-up periods, time the warm up yourself. Record the warm-up time on specific stickers available from the Sustainability Office and place it on the equipment. Use the right sized equipment for the task and ensure full loads to maximise resource use. Investigate whether another lab has similar equipment needs, as you could pool resources, or use their equipment for larger loads and downsize yours.

Spring clean

Forgotten samples take up space and decrease efficiency of fridges and freezers. Prevent this with annual audits of samples and correct disposal of out-of-date samples to free up storage space. Defrosting freezers, with an ice thickness greater than 5mm, also increases available space and efficiency.

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