Sustainability Office

Office of Campus Planning / Sustainability Office / Get Involved / Campaigns / Bundle Up



BUNDLE UP AND YOU'LL SAVE ENERGY

To uphold individual comfort and help support energy conservation stewardship efforts on campus during the cooler months, it is recommended to Bundle Up! Dressing in seasonally-appropriate clothing is the easiest measure to adopt as means to conserve energy. Tips include:

- Dress in layers and avoid synthetic fabrics which can cause sweating to keep your body cool.
- Consider wearing wool clothing, base layers, and socks wool is an environmentally sustainable, renewable, natural resource renowned for its insulating yet breathable properties.
- Contemplate wearing footwear that is lined for further insulation to retain warmth.
- Keep a scarf, shawl, lap blanket, fingerless gloves, or reusable pocket or hand-warmers available for alternative personal space heating options.

Although many campus constituents have no direct control over heat settings in their work spaces, people can incorporate energy-efficient personal space heating measures to achieve optimum personal comfort. Supplemental tips to retain warmth in work spaces include:

- Close windows and doors to keep heat inside and cold air out.
- Keep blinds open during the day to let the sun's warmth in and close them at night when leaving the office to maintain heat insulation.
- If possible, move office furniture away from doors and drafty areas.
- Unimpeded pedestrians should not use automatic door actuation buttons to open doors. Energy efficiency is

negated by inappropriate use of actuation buttons as hot/cold air escapes through doors which open wider and for longer durations than doors manually opened.

Heater Swap-Out Program

Over and above dressing seasonally-appropriate and promoting heat retention in buildings, where required utilizing more efficient, personal radiant space heaters can be employed. The <u>Heater Swap-Out Program</u>, a partnership between the Sustainability Office and Facilities Management, supports and facilitates the replacement of personal ceramic space heaters with more energy-efficient radiant models. To replace a ceramic heater in your workspace with an energy-efficient radiant model, please submit a <u>work request</u> with Facilities Management.

To date, the Heater Swap-Out Program has replaced 21 ceramic heaters with radiant models resulting in expected annual energy savings of 31,147 kWh and \$2,015 in reduced energy costs per year. With potential to replace an additional 129 ceramic heaters on campus, the Heater Swap-Out Program anticipates an estimated 191,333 kWh reduction in electricity consumption per year, saving more than \$12,380 annually.

Energy Efficient Space Heating

Additionally, operational achievements on campus have been realized to produce ambient office and building temperatures and realize greater building energy efficiency. As 45 per cent of energy use is utilized for space heating in Canadian institutional and commercial settings¹, heating and cooling systems across campus have been improved. Space heating for academic facilities at UBC Okanagan is provided by the campus' district energy system (DES) which derives 57 per cent of its heat source from renewable earth energy (ground source aquifer). The DES was optimized to provide energy sharing between buildings, heat re-capture, thermal storage, and flexibility for future fuel switching, and has contributed to significant reductions in natural gas consumption and associated greenhouse gas (GHG) emissions. The 2013 replacement of a boiler in the Central Heating Plant with a new high efficiency condensing boiler is expected to reduce campus GHG emissions by 145 tCO₂e per year. Upgrades to HVAC systems involved air-balancing to adjust and regulate air flows, improve humidity control, and increase energy efficiency and energy savings.

By adopting energy-efficient personal space heating measures to support operational upgrades and retrofits, we can save energy, increase the efficiency of campus buildings, save on heating and cooling costs, and reduce carbon emissions.

¹ http://www.nrcan.gc.ca/energy/products/categories/heating/13740

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