

# Space Heater Toolkit

This toolkit will help you to work with people in your unit to reduce the amount of electricity used by space heaters.

## Background Information

The Lower Mainland Health Authorities use approximately - 290,000,000 kWh of electricity annually. This is enough electricity to power about **26,364 homes for a year**. While BC currently benefits from clean hydro power to meet electricity needs, demand is expected to outstrip our current capacity by 40% in the next two decades. How can BC close this gap? Significant energy savings can be achieved by being smart with how we use energy.

## The Toolkit

The purpose of this toolkit is to start the conversation about space heaters with staff in your department and to look for options to balance conservation and comfort. It provides a number of solutions to propose to staff to help all of us reach our energy reduction goals.

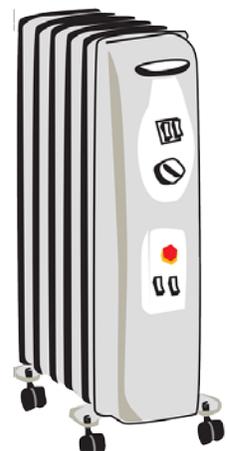
## Space Heaters

Space heaters consume significant amounts of electricity. They draw anywhere from 800 to 1,500 watts compared to your computer at 75 watts.

Space heaters can also interfere with your unit's heating and cooling system causing them to run ineffectively. This is especially true when a space heater is close to a thermostat which may cause the cooling system to turn on mistakenly, thereby reinforcing the need to heat the space.

## The Big Picture

This toolkit is part of a broader initiative to reduce the Lower Mainland Health Authorities' energy use, and to foster a workplace culture where everyone works together to help reduce the energy demand of electronic equipment.



# Steps

## Step 1 – Get Management Involved

Speak with your supervisors about running space heater campaign. Get them on board first. Here are some key talking points to help you make the case.

- o 10 to 20 % of LMHA’s consumption is due to electronic devices and equipment plugged into wall outlets.
- o Space heaters are a safety issue and fire hazard.
- o When both are running, space heaters use up to 20 times as much energy as a desktop computer.

## Step 2 – Assess your Work Area and Equipment

Conduct a quick baseline assessment using the “Equipment” Worksheet in the [Energy Assessment Tool](#). Some things to record when you undertake your assessment:

- o The number and types of space heaters
- o Whether space heaters are turned on or off
- o Whether space heaters are running when no one is around
- o Whether space heaters are below a thermostat
- o Flag areas with temperature issues

We recommend that you conduct two visual assessments: one during working hours and one after normal working hours. Write your results down, so you can compare your findings to your results after conducting the campaign.

Want to go a step further? Use this online space heater calculator to calculate how much the space heaters in your area consume in a year (use 11 cents as the cost per kWh):

[http://energyusecalculator.com/electricity\\_spaceheater.htm](http://energyusecalculator.com/electricity_spaceheater.htm)

## Step 3 – Start the Conversation

Personal comfort is a sensitive issue and your co-workers may be reluctant to change their habits. The best approach is to have a conversation with each individual that uses a space heater to find out why they use one. You may even want to start this conversation before you get management involved (Step 1) so you can build a stronger case based off of an understanding of the reasons people use space heaters. Try this three step approach:

**Ask:** Open the conversation with a question. Ask them why they use the space heater.

**Listen:** You want to know the reasons behind their use of the heaters. Listening carefully and asking clarifying questions can help uncover the issues.



**Suggest:** Based on what you hear, make some suggestions about what they can do to address their temperature concerns, such as:

- Make sure FMO has been alerted so they can investigate the comfort issue.
- Use the heater when you're cold, but turn it off at the end of the day and especially before the weekend.
- Put your space heater on a timer, so it turns off at the end of the day and on weekends.
- Bring a sweater or scarf to work and put it on first, before turning on the heater.
- Have a hot beverage to warm up or get up and move around, before turning on the heater.
- Suggest that next time they purchase a heater to choose a more energy efficient model (see page 4 to highlight the differences between conventional and energy efficient models)

## **Step 4 – Additional Ideas**

### **Staff meeting**

At the next staff meeting raise the issue of energy reduction, provide fun facts about space heater energy consumption and help to generate awareness of this toolkit. If your work area is shared by a variety of groups who meet separately, offer to do presentations at smaller team meetings.

### **Send an email**

Have your manager send out an email similar to the one in the [Additional Resources](#) section asking people to consider reducing the use of their space heaters. Use the data you collected in your assessment to report on when equipment is left on and how much more energy could be saved. It is a good opportunity to remind people that everyone is responsible for electricity use in the workplace.

### **Department Wide Campaign**

In some departments, it may be appropriate to run a campaign to challenge your peers to reduce their space heater use. Design the campaign around the behaviour you want to promote. If you want to remind people to turn off their space heaters at the end of the day, create reminder notes that can be placed on desks at the end of the day. If you want to encourage everyone to dress warmly, organize a “bring your sweater to work day.”

## **Step 5 – Evaluation**

After the campaign has been running for a few weeks, conduct another quick assessment of the space heaters in your unit or office using the “Equipment” Worksheet in the [Energy Assessment Tool](#) and track any changes that might have resulted from the campaign. We recommend that you conduct two assessments again: one during working hours and one after work hours.



## If there isn't a big change, what do I do?

Keep in mind that not all campaigns will be immediately successful. Some will take time and require you to think about barriers and adapt your strategies when needed. Share your challenges at the next Green + Leaders meeting and with the Green+ Leaders Program Coordinator.

## Step 6 – Share your Success

Sharing your success with other Green + Leaders can be motivating and can help support others as they try new tactics and approaches. We also love telling success stories on the [GreenCare Community](#) site, so share your story with us.

# Fast Facts: Space Heaters

## Health Authority

- ✓ Energy conservation can enhance human health by reducing GHG emissions, improving outdoor air quality and decreasing acid rain.
- ✓ Over 97% of our reported greenhouse gas (GHG) emissions come from health care buildings within the LMHOs, making health care one of the most energy intensive sectors.
- ✓ Our target is aligned with the Provincial mandate of reducing the public sector's carbon footprint 33% by 2020.
- ✓ While the LMHOs' overall energy consumption has increased since 2007 – due to facility expansions and increased health care services – our energy conservation measures have resulted in a **decrease in energy intensity** (*i.e.* amount of energy used per square foot): -9.3% Fraser Health, -0.7% PHC, -2.5% PHSA and -10.2% VCH.

## Space Heater Energy Use

- The U.S. Consumer Product Safety Commission estimates that 22% of all residential fires (~120,000 residential fires occur annually) are caused by supplemental space heaters.
- It is safer and more affordable to use an electric blanket.
- Typical space heaters use the same amount of energy as a blower dryer. Would you leave a blow dryer on under your desk all day?
- One space heater can cost \$360 to run. Calculate how much your own space heater consumes with this online calculator: [http://energyusecalculator.com/electricity\\_spaceheater.htm](http://energyusecalculator.com/electricity_spaceheater.htm)



# Additional Resources

## Sample Email Template

Subject: Balancing Comfort and Conservation

The Lower Mainland Health Authority is committed to creating a comfortable working space as well as doing our part to use our energy wisely. Over the cool weather months, we are asking staff to consider ways to use their space heaters efficiently. These personal heaters can consume significant amounts of electricity and are potential fire hazards. They can also cause the space heating and cooling systems in your departments to run ineffectively, especially they are when placed near a thermostat.

In an effort to use our energy responsibly, please consider these options:

- o Contact FMO so they can investigate the comfort issue.
- o Turn space heaters off when you leave your desk and especially at the end of the day.
- o Bring a sweater or scarf to work and put it on first, before turning on the heater.

## Space Heater Facts & Safety Tips

Canadian Standards Association Space Heater Facts

<http://www.csagroup.org/global/en/consumers/safety-tips/around-the-home/space-heaters>

Why Personal Space Heaters Aren't Useful in the Workplace

<http://www.environmentalleader.com/2011/10/03/why-personal-space-heaters-aren%E2%80%99t-useful-in-the-workplace/>

BC Hydro Fact Sheets

[https://www.bchydro.com/content/dam/hydro/medialib/internet/documents/Power\\_Smart\\_FACT\\_sheets/Portable\\_Electric\\_Space\\_Heaters.pdf](https://www.bchydro.com/content/dam/hydro/medialib/internet/documents/Power_Smart_FACT_sheets/Portable_Electric_Space_Heaters.pdf)

BC Hydro: The kilowatt-hour defined, and what it means to you

<https://www.bchydro.com/news/conservation/2012/kilowatt-hour-explained.html>



## Comparing Conventional and Energy Efficient Space Heaters

Speak with Purchasing: If a particular staff person or department is in charge of purchasing equipment for your unit, speak with them about different space heater options. Some models use significantly less energy than other models. Use the chart below to demonstrate the difference.



### Conventional Space Heater

- Regular electric heater
- 1500-watts
- Annual Cost: \$165/year based on 4hr/weekday
- Purchase Cost: \$20 to \$50

[More Product Information](#)



### Toasty Toes

- Portable radiant heater
- 90-watts
- Annual Cost: \$10/year based on 4hrs/weekday
- Purchase Cost: \$65

[More Product Information](#)



### Fahrenheit WorkWarmer Heater

- Portable radiant heater
- 170-watts
- Annual Cost: \$19/year based on 4hrs/weekday
- Purchase Cost: \$100

[More Product Information](#)



## Contacts

For help using this toolkit, please contact the Green + Leaders Program Coordinator.

Visit <https://bcgreencare.ca/framework/energy-conservation> for more information on GreenCare's energy-related initiatives.

