Energy

See the Heat Program

See The Heat

With the RDCK's See the Heat program, you can borrow a thermal imaging camera from your Castlegar, Creston, Nakusp or Nelson library to See the Heat that escapes from your home. See the Heat is offered through the RDCK's Regional Energy Efficiency Program (REEP).

The thermal imaging camera connects to your smart phone so you can learn more about the energy efficiency of your home. It allows you to see how well your house is insulated, how well doors and windows seal, what plugins and outlets are particularly leaky, and the effects of leaving chimney flues open when not in use.

Thermal images can help you discover opportunities that you might have to improve the comfort and energy performance of your house.

How to participate

Borrow a thermal camera from the library in Creston, Castlegar, Nakusp, or Nelson and bring it home.

1. **Getting started**
   - Open the kit and plug in the camera to ensure that it's charged.
   - Download the free FLIR ONE app from your app store.
   - Connect the fully charged camera to your Android or IOS smart phone.
   - Open the FLIR App and follow directions for camera use.
   - When using a thermal imaging camera to find energy losses, the difference in temperature between the inside of the building and the outside should ideally be at least 10 °C.

2. **Familiarize yourself with the camera**
   - Like to sleep with a window open? Or do you leave a bathroom window open a crack? Compare inside and outside photos of that window with others that you keep shut.
   - Do you have a fireplace and sometimes forget to close your flue? Take a picture of the inside and outside of your chimney.
   - Do you leave power bars on with unused electronics plugged in? Take a picture and see the phantom load turn to heat.
   - Do you leave the door open while you bring in the groceries? Or while you take your shoes off? Take a picture of your door frame after leaving the door open for three minutes.
   - Do you have a fireplace or other natural gas appliance that you use infrequently but have a pilot light burning? Take a photo of it to see the heat.

3. **Taking your photos**

To get the most value from your time with the camera, it is best to be methodical. Pick a natural starting point in your house, such as a front or back door, and go from there. If you do this in order, you will be able to prioritize which simple retrofits to do first.

Take photos from the inside of:

- all windows
- all doors
- chimneys
- all electrical outlets and light switches on outer walls
- all outer walls (look for cold transferring through wall studs)
- inside dryer long after the most recent drying cycle
- any other locations (i.e. kitchen fans, bathroom fans, fresh air or exhaust vents) that perforate the outer wall of your house

4. **Interpreting your results**

Look at your images to see where you find orange and yellow spots. They show heat. Blue and purple images show cool spots. Your hot spots can indicate where energy is being wasted and where you might be interested in making changes to reduce your energy use.

Quick fixes to consider:

- door and window weatherstripping
- electrical switch and outlet insulator
- plastic window insulation

Check out these resources for support:

- How to use the Thermal Imaging Camera
- Checking a House for Missing Insulation
- Tracking Down Moisture Issues
- Thermal Imaging 101
- For technical support, visit the manufacturer's support page.