# Yukon

## Exploring Geothermal: How is geothermal energy used?

Geothermal energy is a renewable source of heat that has been used for thousands of years.

#### How is geothermal energy used?

For centuries, people have been using hot springs for bathing, cooking and heating. Today, there are additional applications for geothermal energy:

1. Moderate Temperature: "Direct Use" or Heating

- temperature range of about 30°C 110°C
- can be used directly in spas, to heat buildings, to grow crops or for aquaculture

2. High Temperature: Producing Electricity

- temperature typically greater than 110°C
- clean, renewable and reliable source of energy with a small footprint



From: http://www.enbridgeus.com/energy-matters/energy-school/geothermal

FOR MORE INFORMATION, PLEASE CONTACT: Yukon Geological Survey at geology@yukon.ca

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#### How is the Yukon's energy distributed?

Close to 93% of the Yukon's electricity comes from renewable sources (four hydro plants plus solar). However, there are five Yukon communities that are not connected to the Yukon grid and are predominantly served by micro-grids that are powered by diesel generators, plus some solar.

Despite the Yukon's relatively green power generation, 75% of the energy used for space heating uses non-renewable fossil fuels (oil and propane).



### Advantages of geothermal?

Compared to other renewable resources such as solar and wind, geothermal is sustainable, stable and reliable, and is always available as it doesn't rely on weather or the seasons. Furthermore, even a moderate temperature resource has the potential to meet the heating demands of a small community.