

Sources of Energy SPH4C

Both coal and nuclear power plants use _____ turbines to turn their generators.

Burning coal is an _____ chemical reaction: it produces _____.

The main advantage of coal is that it is the _____ way of producing power.

The main disadvantage is that the burning releases pollutants: not only _____
gases such as _____ but also toxins such as _____.

In nuclear plants, it is the _____ decay of _____ that produces the heat to boil the water.

The main advantage of nuclear power is that it does _____ produce any pollutants.

However, _____ of the nuclear fuel after use can be a problem because it is still radioactive. And _____ uranium produces toxic, radioactive _____.



“Hydro” is short for hydroelectric, power generated by water _____ that turn the energy of the water flow into the rotational energy needed to power a _____.

Across Canada, hydro is the _____ source of energy (_____ in Ontario).

Hydro plants are clean in that they do not emit pollutants, including greenhouse gases.

But they still disrupt _____ because of the large _____ required.

_____ hydro dams are _____ and carefully planned to minimize disruption. 6% of Ontario’s energy now comes from these dams.

Solar energy is power generated by harnessing the energy of the _____.

Mirrors and metal plates can be used to concentrate the Sun's rays to heat _____ or _____. This is called _____ **solar technology**.

Mirrors can even be used to concentrate the Sun's rays to heat water to drive electrical _____.

Solar _____ are most effective when they are _____ toward the Sun (not necessarily straight up). The most effective angle will be equal to the _____ of the panel.

Solar panels contain _____ cells.

The cells are made of _____ such as _____.

When light strikes the cell, an electric current is produced.

This current is _____ current (_____).

It can be stored in a rechargeable _____ or be converted to AC (by an _____) to be used by household appliances.

Houses with solar panels can _____ energy back to the grid when they are producing more than is needed.

The disadvantages of solar energy are:

- The _____ needed to build the panels
- It doesn't produce energy _____ (or as much when _____)

