

Renewable energy is energy that can be replaced as fast as we use it.¹ It come from things like the sun, wind, and water. It can even come from plant and animal waste! It's also called "clean" or "green" energy.

Fossil fuel is another type of energy. It's comes from things like coal, oil, and natural gas. This energy isn't as good for the planet as renewable energy. Why? Fossil fuels release a lot of greenhouse gases (GHGs) into the air. GHGs warm up the planet and cause climate change. Clean energy doesn't do that, so it's much healthier for the planet!

4 main kinds of clean energy in Canada

Name	What is it?	Why is it better for the planet?
 <p>Hydroelectric Energy</p>	<p>Hydroelectric energy is the "Number 1" renewable energy in Canada. We use it the most! It's energy made by moving water! Here's how: water from rivers and lakes flows through dams. As it does, a machine inside the dam, called a turbine, spins. The spinning turbine then makes power.²</p>	<ul style="list-style-type: none"> • No air pollution. • Very low GHGs. • Can help control floods and store water for other uses.³
 <p>Wind Energy</p>	<p>Wind energy is created by wind turbines. These machines look like huge fans. When the wind blows, the blades spin and make electricity.⁴</p>	<ul style="list-style-type: none"> • No air pollution or GHGs. • No toxic waste. • Wind turbines can be built on farmland. That means the land can be used for two things at the same time!⁵
 <p>Solar Energy</p>	<p>Solar energy comes from the sun! The sun shines on solar panels and they turn it into electricity.⁶</p>	<ul style="list-style-type: none"> • No pollution or GHGs. • No toxic waste. • There is lots of sunshine to go around!
 <p>Biomass Energy</p>	<p>Biomass energy comes from plant and animal waste. That's things like wood, leaves, food, and even manure (yes, that smelly stuff!). Only some kinds of biomass energy are renewable. When it is burned or made into fuel, it makes electricity.⁷</p>	<ul style="list-style-type: none"> • Uses waste instead of sending it to the landfill. • Can produce less GHGs when used instead of fossil fuels.⁸

Sources:

¹ [About renewable energy in Canada](#), Government of Canada
² [5 Things you need to know about hydropower](#), Canadian Hydropower Association
³ [5 Things you need to know about hydropower](#), Canadian Hydropower Association
⁴ [Wind Energy](#), Government of Canada
⁵ [Wind Energy](#), Canadian Renewable Energy Association
⁶ [Solar Energy](#), Government of Canada
⁷ [Bioenergy Systems](#), Government of Canada
⁸ [Biomass Energy](#), The Canadian Encyclopedia

Making the switch to clean energy

Canada is already hard at work making the switch to clean, renewable energy. We're doing lots of things to stop using so many fossil fuels. Until then, we need to make sure we use electricity in a smart way. That means not wasting it. Here are some things we can all do to help:



Turn off the lights

Always switch off lights when you leave a room (if everyone else has left too!).



Wear a sweater

Does it feel a little chilly inside? Put on your coziest sweater before turning up the heat.



Learn about local renewable energy

Are there any renewable energy projects nearby? Ask an adult or do some research. There could be solar farms, wind turbines, or other clean energy projects right around the corner.



Spread the word about clean energy

Tell friends and family what you've learned! Make pictures, posters, or even write a letter to show how clean energy can help the planet!

Remember, we're all in it together! You don't have to solve the problem on your own. Governments, businesses, and local organizations all have a part to play to help Canada make the switch to clean energy.