



A Green-Powered Canada

Name _____

Date _____

Worksheet

Energy source

Hydro Electricity

Definition

Electricity Powered by Water

Benefits

Flood Control, Clean Drinking Water, Renewable Resource

Drawbacks

Environmental Damage, It's not Safe. Droughts

How is this energy source being used in Canada?

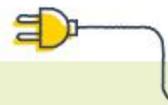
Hydroelectricity accounts for 59.3 percent of the Canada's electricity supply. It is the second largest in the world.

What role could this energy source have in the future?

There could be more water powered things like Cars, Planes, Helicopter etc.

Provide two reliable sources for people who would like to learn more about this energy source:

There are other reliable sources of energy like wind power (Energy from wind) and Solar power (Energy from sun)





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Energy source Wind power.

Definition Wind power is a popular, sustainable, renewable energy source that has a much smaller impact on the environment than burning fossil fuels.

Benefits

- Its cost effective
- Its a clean fuel source
- Its sustainable
- Wind turbindes can be build on existing Farms or ranches

Drawbacks

- The generation capacity depends on The wind
- Difficulty with electrical planning
- Cannot be stored

How is this energy source being used in Canada?

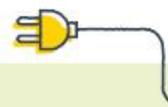
Wind turbines have been deployed by corporations, first nations, municipalitie, and community organizations across canada.

What role could this energy source have in the future?

It could reduce energy bills. There would not be much pollution.

Provide two reliable sources for people who would like to learn more about this energy source:

Wind power and solar power.







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Name payton

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Worksheet

Energy source Hydroelectric dams

Definition

The use of flowing water to power a turbine to produce electrical energy

Benefits

flood control, irrigation support, and clean drinking water.

Drawbacks

Lower than normal water levels can heavily impact energy production and is a disadvantage of hydroelectric energy. Aside from being affected by drought, hydro energy production can cause drought conditions downstream if they don't allow sufficient water to pass through.

How is this energy source being used in Canada?

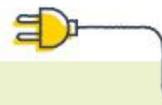
Hydropower **utilizes turbines and generators to convert that kinetic energy into electricity, which is then fed into the electrical grid to power homes, businesses, and industries**

What role could this energy source have in the future?

Hydropower has the potential to **support more than 195,000 jobs across the nation in 2050**. By 2050, hydropower can reduce cumulative greenhouse gas emissions by 5.6 gigatonnes -- equivalent to nearly 1.2 billion passenger vehicles driven in a year -- saving \$209 billion from avoided global damages from climate change.

Provide two reliable sources for people who would like to learn more about this energy source:

Hydropower is **one of the oldest power sources on the planet**, generating power when flowing water spins a wheel or turbine. It was used by farmers as far back as ancient Greece for mechanical tasks like grinding grain. Hydropower is also a renewable energy source and produces no air pollution or toxic byproducts.





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Energy source Wind power

Definition
Wind turbine

Wind energy is a clean unlimited renewable energy source that is available for free around the world Wind power is clean energy

Wind energy causes noise and visual pollution



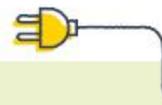
The 363.5 MW **Seigneurie de Beaupré Wind Farms in Quebec** has been the largest wind farm by installed capacity in Canada since it was last expanded in October 2015 from 340 MW to 363.5 MW.

What role could this energy source have in the future?

No Pollution

Provide two reliable sources for people who would like to learn more about this energy source:

Solar and power plant







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Energy source

Solar power

Definition

Solar power is **the use of the sun's energy either directly as thermal energy (heat) or through the use of photovoltaic cells in solar panels and transparent photovoltaic glass to generate electricity.**

Benefits

- Reduces Air Pollution. Fossil fuels create a lot of pollutants. ...
- Reduce Water Usage. .

Drawbacks

Uses a lot of space
The cost is fairly high

How is this energy source being used in Canada?

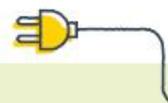
In Canada, the use of solar energy **to generate electricity and heat** is growing quickly and is helping reduce pollution related to energy production

What role could this energy source have in the future?

Solar power will become cheaper

Provide two reliable sources for people who would like to learn more about this energy source:

It is the fastest growing source it helps cut down pollution





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Name Hayden.O

Date Mon, Apr 11th, 2022

Worksheet

Energy source Dam

Definition a barrier constructed to hold back water and raise its level, forming a reservoir used to generate electricity or as a water supply.

"the dam burst after torrential rain"

Benefits Dams provide water for society to drink and use, protection from both river and marine floods, hydro electric power, irrigation water to grow food, a pleasant recreation area, and enhanced environment. Dams have been constructed during different periods depending on the needs of society at the time.

Drawbacks

Risk of sediment buildup: When water rushes through a dam and its internal turbines, it can create a great spot for sediment layers to be trapped and congregate, which then can pollute the water and disrupt the ecology of the water environment

How is this energy source being used in Canada?

Water supply dams are used to provide water for urban and rural domestic water supply, recreation, navigation, industry, waste assimilation, and cooling for thermal power plants.

What role could this energy source have in the future?

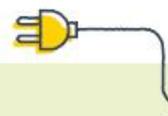
Examples include increasing power production at existing hydropower dams, installing new power production technology at non-power dams, maintaining existing but non-power dams for recreation or habitat, or removing dams to restore fisheries or address safety concerns.

Provide two reliable sources for people who would like to learn more about this energy source:

Dams can be formed by human agency, natural causes, or even by the intervention of wildlife such as beavers.

Man-made dams are typically classified according to their size (height), intended purpose or structure.

In addition to producing clean carbon-free energy, dams can also, simultaneously, serve other functions: irrigating cultivated land, supplying communities with drinking water, reducing flood flows, replenishing low-water levels, aiding waterway navigation, using reservoirs for tourism and sports, fish-farming, ...





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Energy source Hydro power (renewable)

Definition

Flowing water spins a turbine, which is connected to a generator.

Benefits

The most widely - used renewable energy
Quite reliable
Renewable
Helps with flood control and water supply

Drawbacks

Forces people to move
Damaging to physical environment and wild life
Dam could break
Pollution from heavy construction

How is this energy source being used in Canada?

Hydro power can play a key role in meeting Canada's growing electricity needs while reducing air pollutants and greenhouse gases

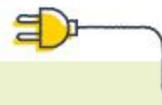
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Provide two reliable sources for people who would like to learn more about this energy source:

<https://www.energy.gov/eere/water/hydropower-basics>

<https://www.eia.gov/energyexplained/hydropower/>





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Energy source sun

Definition hot/warm

Benefits
Health effects of sunlight exposure

Drawbacks
Eye damage

How is this energy source being used in Canada?

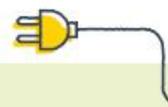
U need sun for plants

What role could this energy source have in the future?

Helping with the plants

Provide two reliable sources for people who would like to learn more about this energy source:

Earth and light





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Energy source Solar energy

Definition It gives us sunlight and can also give electricity to homes

Benefits -gives us electricity in homes
-gives us energy

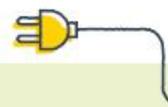
Drawbacks

-can't see in a black out
- Only works when the sun is out
Can't get water when there is no power

How is this energy source being used in Canada? For families to see and to play on there devices.

What role could this energy source have in the future? If the power stops working then it can be used too see.

Provide two reliable sources for people who would like to learn more about this energy source:
That it can be see in fields, on homes, roofs.





- In china