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INTRODUCING ENERGY IQ

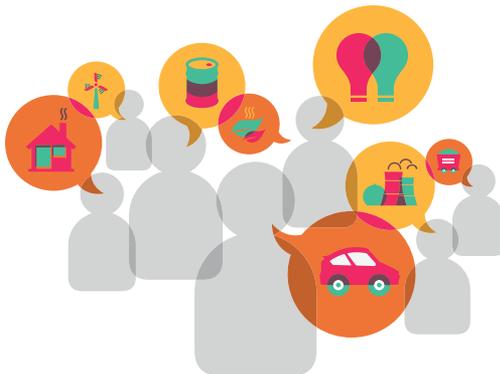
British Columbia may be known more for its natural beauty than its rich energy resources, but B.C. has more than mountains, glaciers and wild rivers.

British Columbia has vast deposits of natural gas and coal, and produces so much hydroelectricity it can meet almost all its electricity needs and still have some left over to sell to the United States. Its position on the Pacific Ocean makes it an ideal conduit for Canadian products heading to Asia-Pacific markets, and its pipelines and railroads carry Canadian oil, gas and coal to ports along its coast.

This fact book provides a snapshot of British Columbia's energy story and how it fits within the broader Canadian energy story. It covers where energy is found, how it's turned into

electricity, how different energy products are shipped around the world and how the energy industry impacts B.C.'s unique environment.

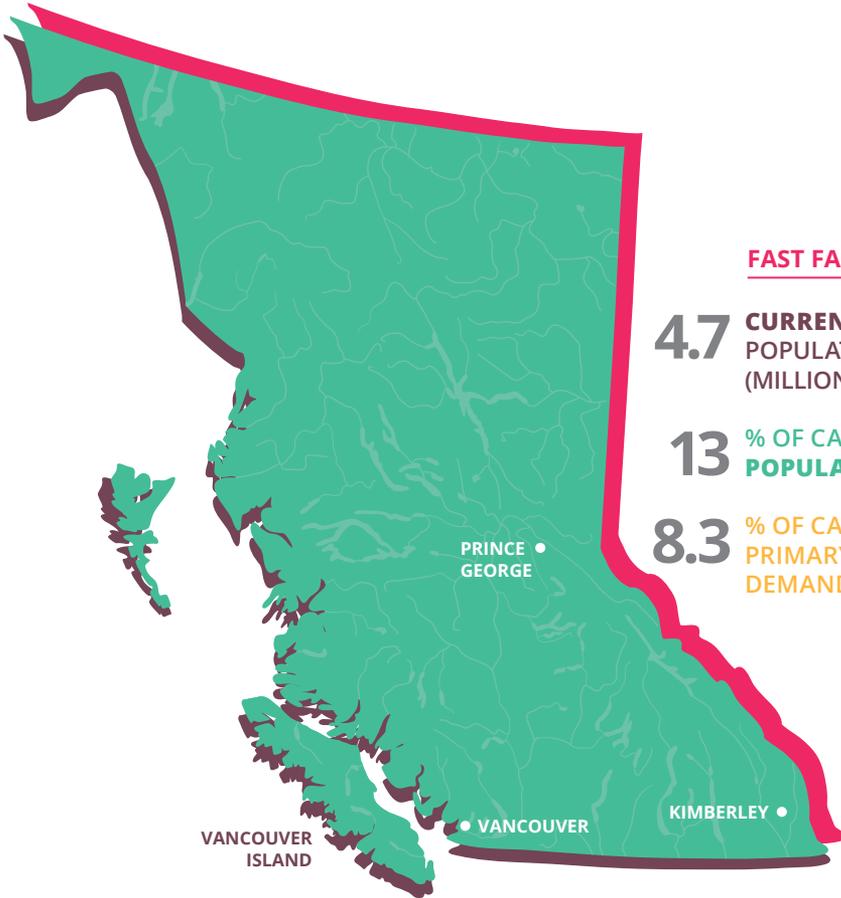
This fact book was produced as part of Energy IQ, an educational program created as a partnership between Canadian Geographic and the Canadian Association of Petroleum Producers. The program focuses on the demand, production and transmission of various energy sources in Canada today with the goal of helping to improve energy literacy across the country among Canadian students and educators.



For more information and resources, visit
energyiq.canadiangeographic.ca

OVERVIEW OF BRITISH COLUMBIA

B.C. produces seven main types of energy: hydroelectricity, natural gas, coal, wind power, solar, biomass, and crude oil.



FAST FACTS

4.7 CURRENT
POPULATION
(MILLION)

13 % OF CANADIAN
POPULATION

8.3 % OF CANADA'S
PRIMARY ENERGY
DEMAND



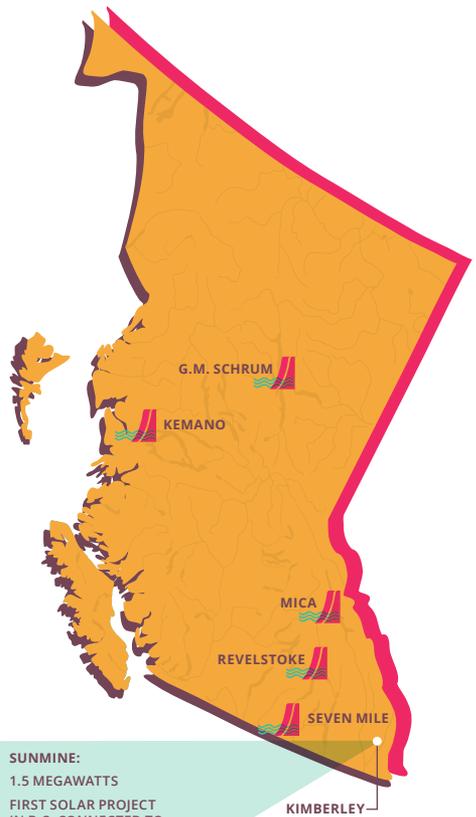
Learn more about how energy is produced in British Columbia and across the country at energyiq.canadiangeographic.ca/energy_mix

RENEWABLE ENERGY

RENEWABLE ENERGY SOURCES, such as wind, hydroelectricity, biomass, and solar can be found wherever the wind blows, rivers flow, or sun shines.

HYDROELECTRICITY

Though British Columbia has an abundance of fossil fuels such as coal and natural gas, its real power, when it comes to energy, comes from water. British Columbia has more than 100 dams scattered across the province and a total installed capacity of 13,800 megawatts, the second highest in Canada to Quebec.



SUNMINE:
1.5 MEGAWATTS
FIRST SOLAR PROJECT
IN B.C. CONNECTED TO
THE ELECTRICITY GRID

SOLAR

With more than 90 per cent of its electricity coming from hydropower you'd think B.C. wouldn't bother with other renewables, but it's becoming a leader in solar power too. Outside of Kimberley — on the site of an abandoned silver, zinc and lead mine — sits SunMine, B.C.'s largest solar project and Canada's largest tracking system (the solar panels automatically track the sun). With more than 300 days of sunshine a year, SunMine is able to generate enough electricity to power 200 homes.

As the sun's energy makes its way through the atmosphere some of it is reflected back into space and the rest is filtered by oxygen, nitrogen, ozone, water vapour and other substances. Of the incredible 63,000,000 watts per square meter of energy the sun emits, only about 546.8 watts per square metre actually reach the earth's surface.

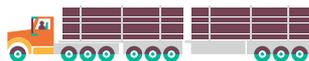
WIND

British Columbia is also home to abundant, world-class wind resources. Though it currently ranks fifth in Canada in terms of generation, B.C. still generates 500 MW of wind energy, about 2 per cent of the province's needs.



BIOMASS

Biomass energy has been used since our ancestors learned the secret of fire. It is generated from organic materials, such as wood chips, agricultural byproducts and municipal waste that is burned or converted into biofuel. This accounts for 827 MW of energy, most of which is generated at large pulp and paper mills.

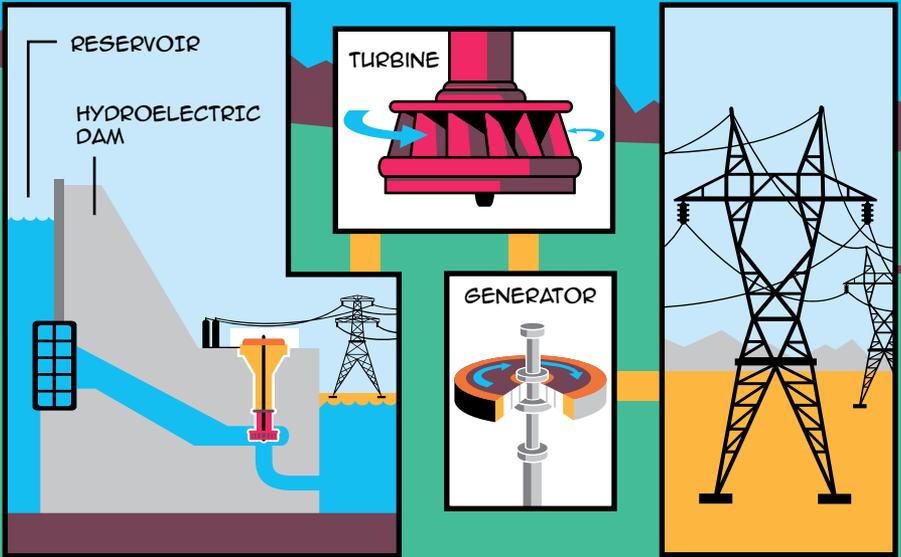


THE PRIMARY CHALLENGE FOR SOLAR AND WIND ENERGY is storage. Unlike hydropower, which is stored behind dams in the form of massive water reservoirs, and biomass, which can be converted into liquid or gas fuel, wind and solar cannot be stored, and the sun doesn't always shine, nor does the wind always blow when electricity is needed. Therefore, wind and solar energy must be converted into chemical energy in the form of batteries, a process that is expensive and loses significant quantities of energy when converted for storage and then recovered later.

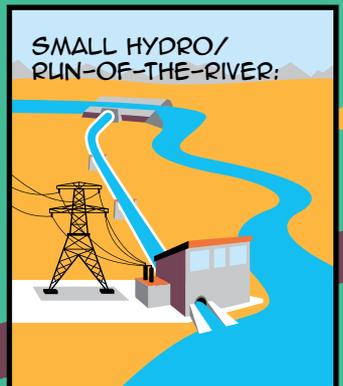
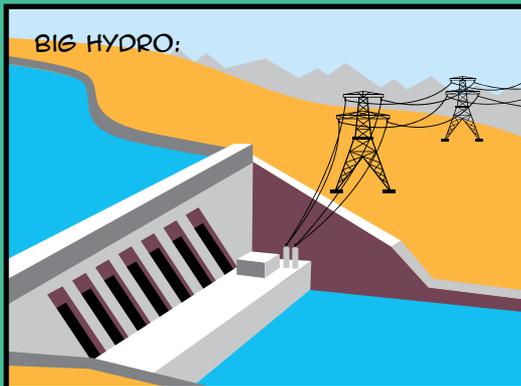
IN B.C., BIOMASS AND THERMAL RECOVERY TECHNOLOGY (USING HEAT RECOVERED FROM INDUSTRIAL SOURCES) ACCOUNTS FOR ABOUT 15 PER CENT OF B.C.'S TOTAL ELECTRICITY, MOST OF WHICH IS USED TO POWER INDUSTRY.

HYDRO

HYDRO ENERGY USES THE KINETIC ENERGY — OR MOTION — OF FALLING WATER, WHILE WIND ENERGY HARNESSSES THE SAME KIND OF ENERGY FROM THE NATURAL MOVEMENT OF OUR PLANET'S AIR.



HYDROELECTRICITY IS CREATED WHEN WATER FALLING FROM A RIVER DAM SPINS A TURBINE, WHICH SPINS A GENERATOR THAT TRANSFORMS MECHANICAL ENERGY INTO ELECTRICITY.



ROTOR BLADE

GENERATOR

GEAR
BOX

NACELLE

WIND

A **WIND TURBINE** WORKS THE SAME WAY; HOWEVER, IT'S THE BLOWING BREEZE THAT CATCHES AND TURNS THE LARGE BLADES OF A PROPELLER, WHICH THEN ACTIVATES THE GENERATOR AND CREATES ELECTRICITY.

TRANSMISSION
LINES

SUBSTATION

TRANSFORMER



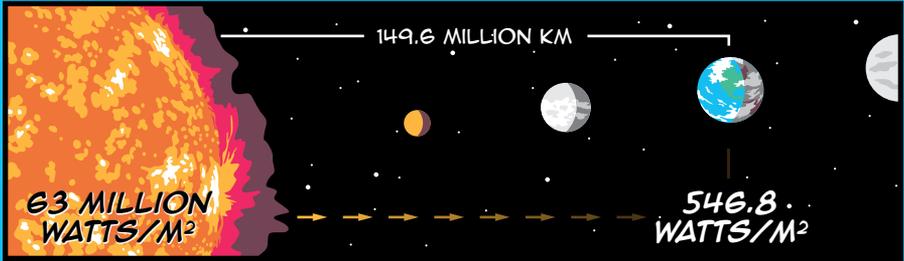
BOTH HYDRO POWER AND WIND ARE **RENEWABLE SOURCES OF ENERGY** BECAUSE, UNLIKE OIL, COAL OR GAS, THEIR FUEL SOURCE — WIND AND WATER — IS NOT CONSUMED IN THE PROCESS AND IS INFINITELY REUSABLE.



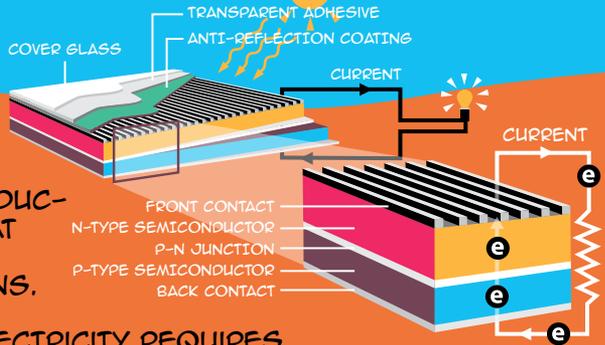
To learn about the many ways biomass is converted into energy, visit energyiq.canadiangeographic.ca/energy_mix

SOLAR

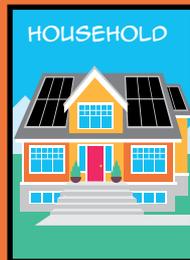
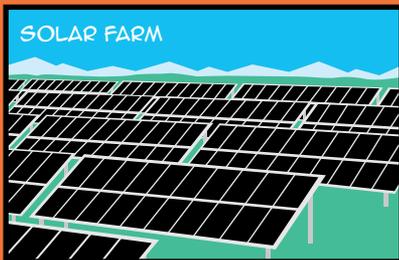
THE SUN CONSTANTLY EMITS AN INCREDIBLE 63,000,000 WATTS PER SQUARE METER OF ENERGY, BUT MOST IS LOST ON THE 149.6 MILLION KILOMETRE JOURNEY TO EARTH.



ELECTRICITY IS GENERATED FROM SOLAR ENERGY THROUGH THE USE OF PHOTOVOLTAIC (PV) TECHNOLOGY, MADE OF SEMICONDUCTOR MATERIALS THAT ABSORB LIGHT AND RELEASE ELECTRONS.



GENERATION OF ELECTRICITY REQUIRES CURRENT AND VOLTAGE. IN A SOLAR CELL, THE FLOW OF ELECTRONS CREATES THE CURRENT AND THE ELECTRIC FIELD CAUSES VOLTAGE.



THE ELECTRICITY PRODUCED IN A PV PANEL IS DIRECT CURRENT (DC).

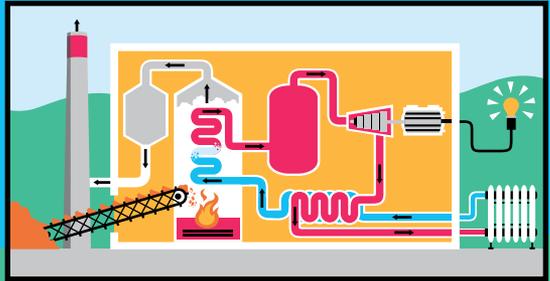
SINCE THE NORTH AMERICAN POWER GRID - AND MOST HOMES AND BUILDINGS - WORKS ON ALTERNATING CURRENT (AC), AN INVERTER IS REQUIRED TO CHANGE THE POWER FROM DC TO AC.



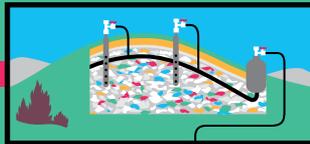
BIOMASS



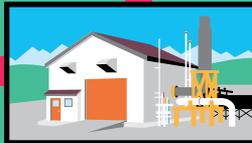
BIOENERGY BEGINS WITH BIOMASS, WHICH IS ANY ORGANIC MATERIAL THAT HAS STORED ENERGY FROM THE SUN IN A CHEMICAL FORM, SUCH AS TREES, HAY, AND EVEN HOUSEHOLD GARBAGE.



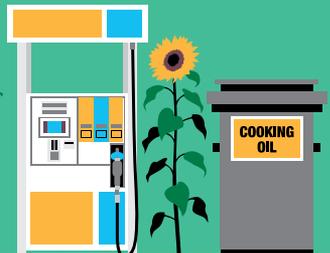
ELECTRICITY: WOODCHIPS, SAWDUST, OR OTHER ORGANIC MATERIALS, ARE COLLECTED AND COMPRESSED INTO PELLETS. THE PELLETS FUEL A BOILER USED TO PRODUCE STEAM. IT TURNS TURBINES, WHICH SPIN MAGNETS IN A GENERATOR, CONVERTING MECHANICAL ENERGY INTO ELECTRICITY.



LANDFILL GAS CAPTURE: METHANE FROM CAPPED LANDFILLS IS COLLECTED, PROCESSED AND UPGRADED, THEN TRANSMITTED BY PIPELINE TO HOMES AND BUSINESSES.



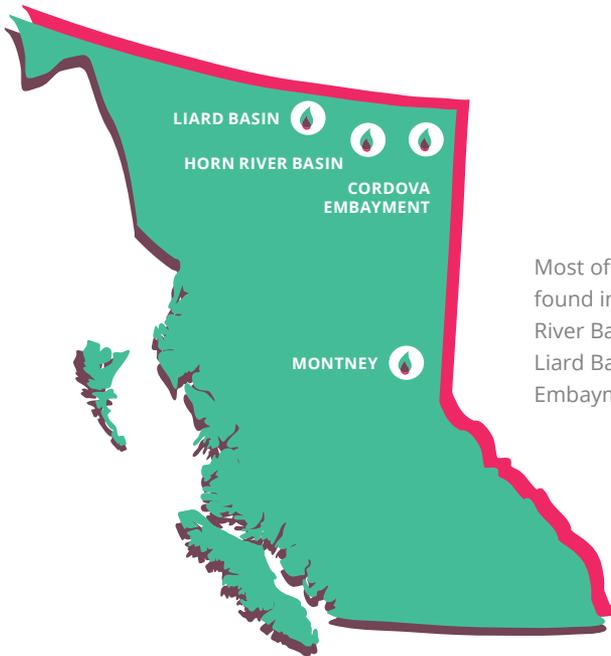
LIQUID BIOFUELS: BIOETHANOL IS CREATED BY FERMENTING AND DISTILLING BIOMASS SUCH AS STRAW, CORN, OR GRAINS. BIODIESEL IS DERIVED FROM VEGETABLE AND ANIMAL FATS, INCLUDING USED OIL FROM RESTAURANTS.



NATURAL GAS

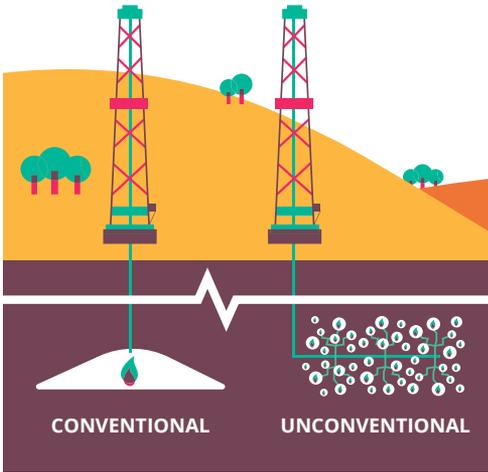
British Columbia is home to a huge amount of natural gas. There is an estimated 83 trillion cubic metres of natural gas in B.C., enough to support energy needs in Canada and the world for more than 150 years.

In Canada, B.C. is second only to Alberta in its natural gas production. B.C. produces about 22 per cent of Canada's natural gas. Much of the gas is converted to liquid natural gas. LNG is natural gas that has been cooled to -160°C , which shrinks it to about 1/600th of its normal size. Once cooled and shrunk, it's easier and safer to transport across the province to waiting ships for overseas markets.



Most of B.C.'s natural gas is found in four areas: the Horn River Basin, the Montney, the Liard Basin, and the Cordova Embayment.

NATURAL GAS IS THE CLEANEST FOSSIL FUEL AND EMITS LOW LEVELS OF GHGS



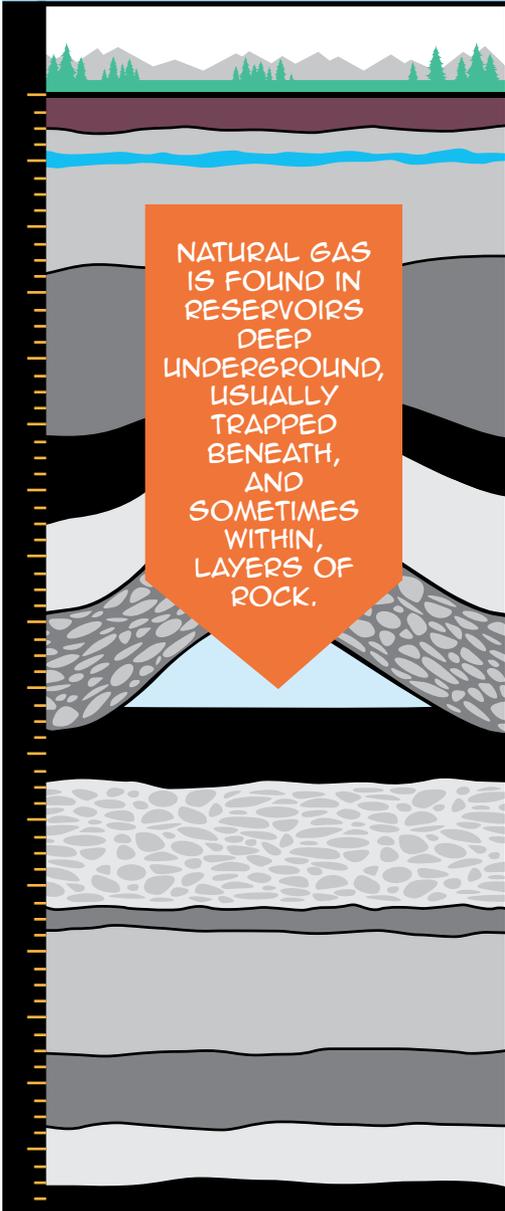
The majority of B.C.'s natural gas reservoirs are actually collections of tiny gas molecules trapped inside rocks two to three kilometers underground. This natural gas is harvested using fracking.

NATURAL GAS cannot be easily shipped by anything other than pipeline. Canada has infrastructure to transport natural gas to eastern Canada and the U.S. And in B.C. alone, there are more than 40,000 kilometres of pipeline running across the province and into the United States.

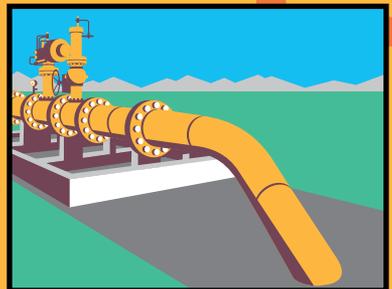
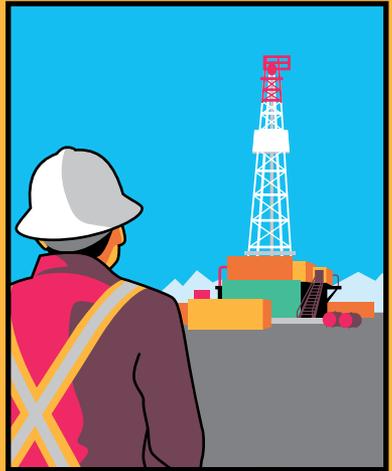
NATURAL GAS PIPELINES

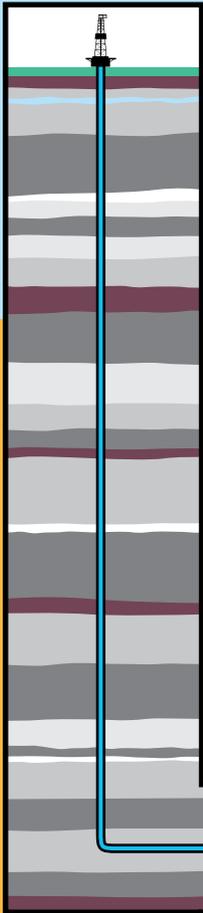


NATURAL GAS

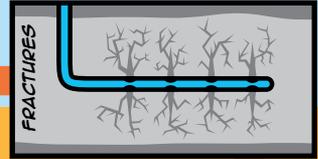
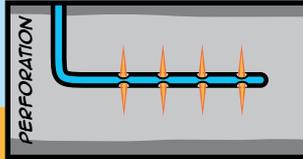


TO EXTRACT **CONVENTIONAL NATURAL GAS** — GAS TRAPPED IN POROUS SANDSTONE AND LIMESTONE FORMATIONS — ENERGY COMPANIES DRILL WELLS INTO THE EARTH, AND THE GAS FLOWS TO THE SURFACE THROUGH THE WELL.

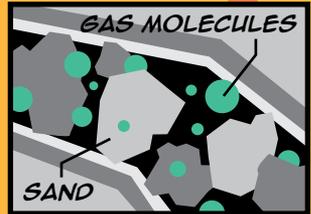




TO EXTRACT **UNCONVENTIONAL NATURAL GAS** — GAS LOCKED WITHIN DEEP ROCK FORMATIONS — ENERGY COMPANIES DRILL HORIZONTAL WELLS 2-3 KILOMETRES INTO THE EARTH.



NEXT, A PRESSURIZED MIXTURE OF WATER, CHEMICALS, AND SAND IS SENT DOWN THE WELL TO OPEN THE CRACKS IN THE ROCK IN A PROCESS KNOWN AS "FRACKING".

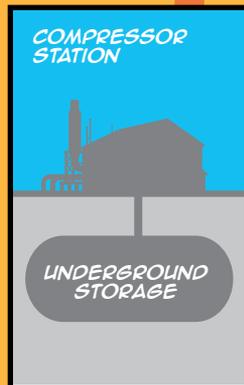


THE GAS IS THEN ABLE TO RISE UP THROUGH THE WELL TO THE SURFACE.



2KM DEEP!

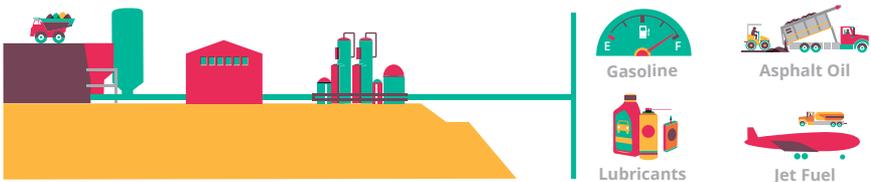
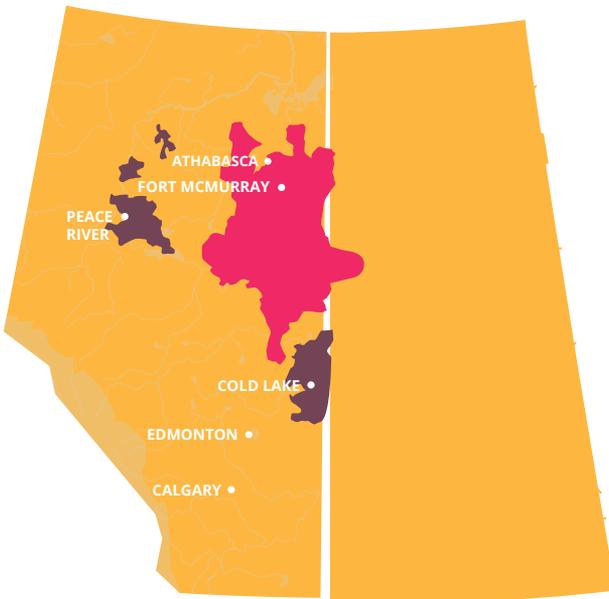
EITHER WAY, NATURAL GAS CAN BE USED TO GENERATE ELECTRICITY, AND HEAT HOMES.

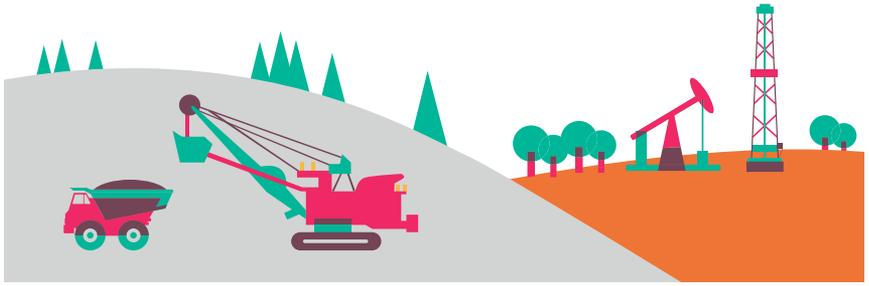


OIL SANDS

Though British Columbia doesn't have any oil sands, it does sit between Alberta and the Pacific Ocean, which means a lot of oil sands products travel across B.C. in pipelines and trains.

About 80 per cent of Alberta's crude oil production now comes from the oil sands. The province has three oil sands regions. The largest, and by far the most well known, is the Athabasca oil sands near Fort McMurray. About 300 kilometres west of Fort McMurray are the Peace River oil sands, while directly southeast of the city is the Cold Lake oil sands, which straddle the Saskatchewan border.

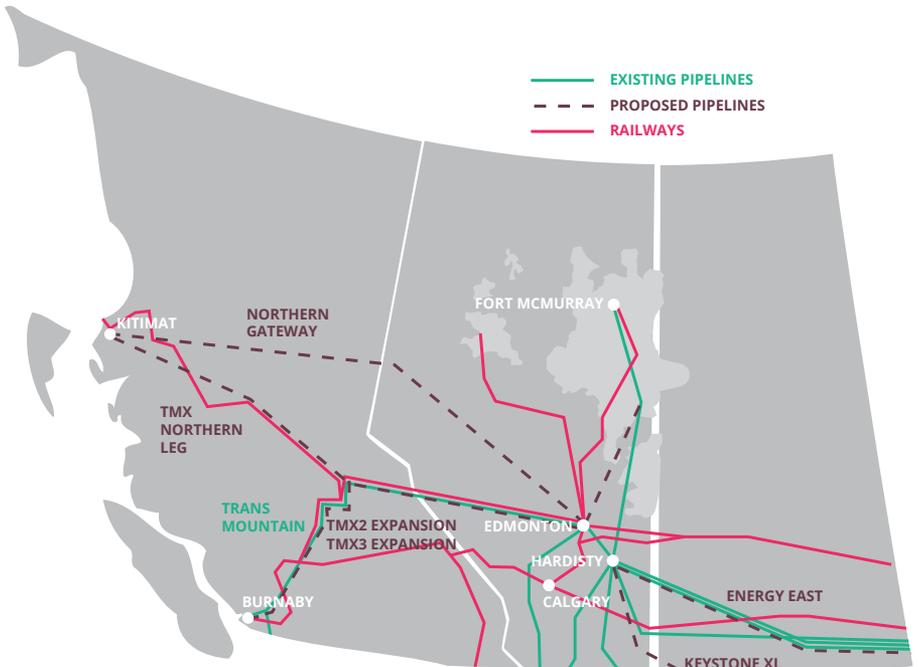




THE ATHABASCA OIL SANDS form the only oil deposit shallow enough to be excavated using trucks and open-pit mines. Still, some of the Athabasca oil sands are buried deeper and are therefore extracted using steam-assisted gravity drainage to avoid disturbing the soil, trees and wildlife on the surface. Meanwhile, the Peace River oil sands, the smallest of the three regions, also removed using steam-assisted gravity drainage (SAGD).

The Cold Lake oil sands are home to some oil fluid enough to be pumped to the surface using traditional oil wells.

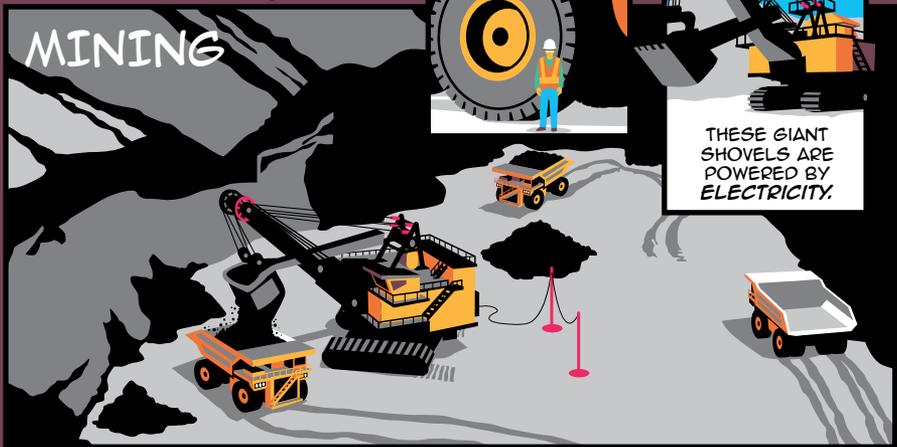
The majority of oil sands products ship south to the United States, but proposed pipelines could see more flowing to terminals along the east and west coasts.



OIL SANDS

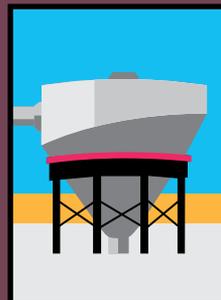


THIS MIXTURE IS TOO THICK AND HEAVY TO FLOW AND IS USUALLY EXTRACTED FROM THE GROUND USING EITHER SURFACE MINING OR STEAM-ASSISTED GRAVITY DRAINAGE.



THESE GIANT SHOVELS ARE POWERED BY ELECTRICITY.

SURFACE MINING IS USED WHEN THE OIL IS CLOSE ENOUGH TO THE SURFACE THAT IT CAN BE DUG UP USING EXCAVATORS, WHICH LOAD IT ONTO LARGE TRUCKS AND TAKE IT TO A PROCESSING PLANT.



SAND
(TAILINGS)

OIL

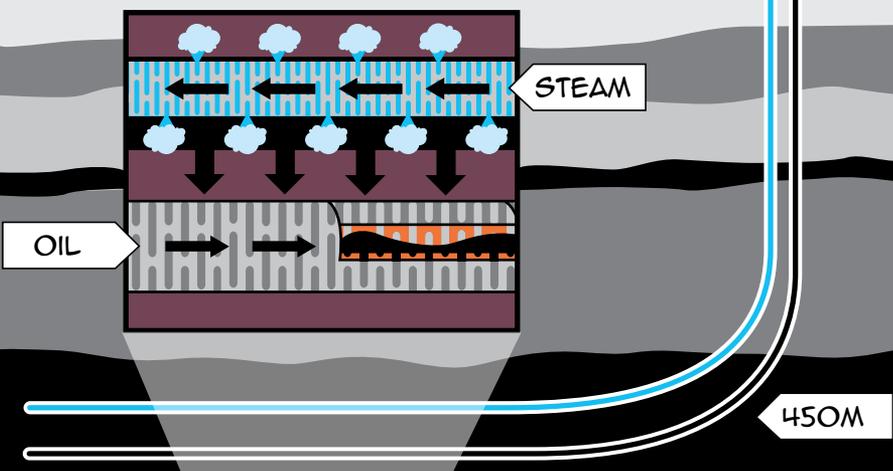
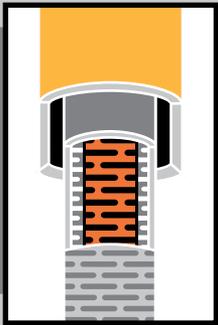
THERE THE OIL SAND IS MIXED WITH HOT WATER TO REMOVE THE SAND AND CLAY.

IF THE OIL SANDS ARE TOO DEEP IN THE GROUND TO SCOOP UP, THEN STEAM-ASSISTED GRAVITY DRAINAGE (SAGD) IS USED.



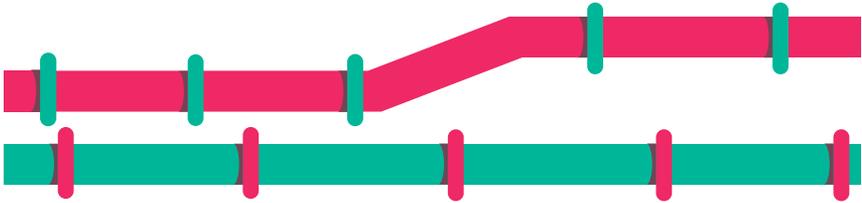
SAGD

THIS METHOD INJECTS HOT STEAM INTO THE GROUND UNTIL THE OIL MELTS AWAY FROM THE SAND AND CAN BE PUMPED TO THE SURFACE USING A HORIZONTAL OIL WELL.



ENERGY TRANSMISSION

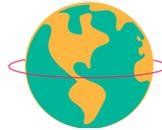
Whether it's coal, oil, natural gas, or biofuels, the sources of energy that heat our homes, fuel our vehicles, and power our devices often travel huge distances. Which means how we transport energy is almost as important as finding the sources of energy in the first place.



In Canada, 97 per cent of natural gas and petroleum products zip across the country in a vast network of pipelines. There are more than 40,000 kilometres of pipeline in British Columbia alone, transporting gas, oil, water and other liquids. Liquefied natural gas (LNG) zips through those pipes at 40 kilometres an hour.

Trains have a long history of transporting all types of commodities, but coal is the number one dry good shipped by rail in Canada. About 80 per cent of coal is shipped to ports in British Columbia because most coal in Canada is found in the west.

THERE ARE MORE THAN 40,000 KM OF PIPELINE IN B.C. ALONE



(ABOUT THE SAME AS THE EARTH'S CIRCUMFERENCE)



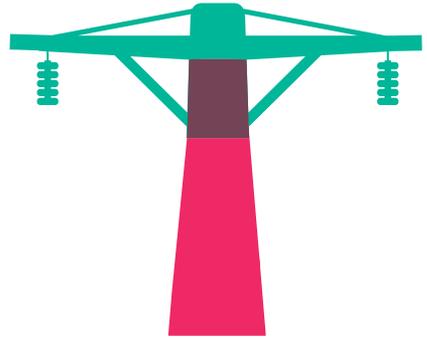


By far the smallest share of energy transport within Canada comes from ships and trucks. The most visible form of transporting energy is probably right outside your window. Yep, power lines. Millions of kilometres of power lines crisscross B.C. delivering electricity.



Did you know there are different types of power lines?

High-voltage transmission lines bring electricity from power plants to sub-stations in cities. There, the high-voltage electricity is converted into the low voltage electricity we use and is sent along distribution lines to our homes, offices, and schools.



HIGH VOLTAGE ELECTRICITY IS CONVERTED INTO THE LOW VOLTAGE ELECTRICITY WE USE IN OUR HOMES



ENVIRONMENTAL IMPACTS

All energy sources impact the environment. Fossil fuels — namely coal, oil and natural gas — emit greenhouse gases (GHGs) when burned (the kind of gases they emit and in what quantity differs for each).

Although renewable energy sources such as wind and hydroelectricity emit little to no GHGs when operating, their infrastructure requires the use of other GHG-emitting fossil fuels for their construction and maintenance.

Locating and developing energy resources also has an impact on the environment. Exploring for resources such as coal, oil and natural gas, then getting them out of the ground and refining them into usable fuel requires energy and therefore also emits GHGs into the atmosphere. For oil sands, about 25 per cent of their related GHG emissions happens in this exploration and refining phase, while the remaining 75 per cent of the emissions are produced when the fuel is used.



This chart compares Canada’s major energy sources and their effects on the environment. It looks at four main criteria: average weight in kilograms of carbon dioxide (CO₂, the most commonly measured GHG) per million British Thermal Units (BTUs, a measure of energy) emitted when using the energy source for fuel, the infrastructure needed to produce the energy resource, the impact on the landscape of developing these resources, and how long it takes the land to return to its previous, or similar, productivity.



To learn more about how energy sources contribute to climate change, visit energyiq.canadiangeographic.ca/learning_centre

CANADA'S MAJOR ENERGY SOURCES AND THEIR IMPACTS ON THE ENVIRONMENT



COAL



CRUDE OIL



NATURAL GAS



RENEWABLES

TYPE FOUND IN CANADA

Bituminous & sub-bituminous coal

Mostly oil sands, a mixture of sand, clay, water, and oil; some conventional crude oil

Mostly conventional; some unconventional

Hydroelectric, wind, solar, and biomass

AVERAGE KGS OF CO₂/MILLION BTU

95.25

75.57

53.00

Little to no GHGs

INFRASTRUCTURE NEEDED

Excavators, trucks, processors, coal-fired power plants, transmission lines

Excavators, trucks, drilling rigs, upgraders, refineries and pipelines

Drilling rigs, processors, gas-burning power plants, transmission lines

Wind turbines, biomass feedstocks and generating plants, hydroelectric dams, transformers, transmission lines

IMPACT ON LANDSCAPE

Vast areas of land are disturbed and removed entirely

For mining, areas of land are stripped and tailings ponds remain for several years. For conventional drilling, very little land is used

Minimal clearing of trees around a well site, if necessary. Fracking requires significant quantities of water

Wind farms can harm local avian populations. Hydroelectric dams can harm aquaculture. Biomass can include crops, and generating facilities can produce some GHGs. Solar uses farm land, and the panels can be hazardous to birds

TIME FOR LAND TO RETURN TO PREVIOUS PRODUCTIVITY

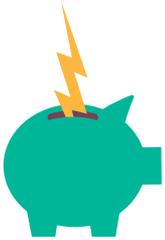
Many years, though often the landscape is forever changed

For oil sands, many years of reclamation are necessary. In the case of conventional oil, there is often no disruption to previous productivity

No disruption to previous productivity on the surface. Impacts of fracking are still being measured

Immediately, though hydroelectric dams can cause long-term changes to river ecosystems

BRITISH COLUMBIA'S ENERGY ECONOMY



Despite its huge service and tourism sector, B.C. has always been known for its rich natural resources. Its forestry products have been shipped around the world for centuries, and B.C. coal — which is about 45 per cent of Canada's total coal production — is used widely in Asia.

Mining and electricity exports totaled \$10-billion in 2014 and 50,000 people work in mining and energy in B.C. alone. The natural resources sector is responsible for 7.7 per cent of B.C.'s economy. B.C. produces 118.9 million cubic metres of natural gas a day and roughly 21,500 barrels of crude oil a year.

B.C.'s energy economy is also important for the rest of Canada. Its ports give Western Canadian provinces quick access to Asian markets.

In particular, B.C. pipelines and railways are important for moving Albertan oil and gas to overseas markets.

British Columbia is also the only Canadian province that has a carbon tax designed to reduce the use carbon emitting fuels. The tax is, "revenue neutral," which means every dollar the tax brings in goes to reducing another tax, such as income tax. So far the tax has been seen a success.

ENERGY FUTURES



The energy landscape in Canada, and around the world, is rapidly changing as industries are tasked with developing cleaner and less expensive ways to meet a growing energy demand. Here's what the leaders of Canada's energy industries have to say about their future.

"Canada's energy future will not be determined by a single force, but rather the interaction of many. Energy prices, economic growth, policies and regulation, market access and infrastructure development, and the development and use of new technologies will all play an important role."

– C. PETER WATSON, P. ENG. FCAE CHAIR, AND CEO, NATIONAL ENERGY BOARD



“Canada has the third-largest crude oil reserves in the world, and we are the world’s fifth largest natural gas producer. The future of our industry, and much of our country’s economic success, depends on our ability to responsibly produce and sell our oil and natural gas to global markets. Transporting more of our products to more markets — by pipeline, rail and ship — would help Canada’s oil and natural gas industry to remain successful and provide jobs to Canadians.”

– **TIM MCMILLAN**, PRESIDENT AND CEO OF THE CANADIAN ASSOCIATION OF PETROLEUM PRODUCERS

“Pipelines have been fundamental to the development of Canada’s way of life, to our energy sector and to Canada’s economic success for more than 60 years... In 2015, Canada’s mainline transmission system had zero significant incidents. That’s why pipelines are recognized as the safest way to transport energy and why new transmission pipelines will also be safe.”

– **CHRIS BLOOMER**, PRESIDENT AND CEO OF THE CANADIAN ENERGY PIPELINE ASSOCIATION FROM A 2016 OP-ED IN THE GLOBE AND MAIL

“The fact of the matter is that a lot of economies will not be able to survive without burning coal. I think the challenge that companies and countries should be looking at is how do you lower emissions and build on the technology...to provide reliable power into the future?”

– **ROBIN CAMPBELL**, PRESIDENT OF THE COAL ASSOCIATION OF CANADA, FROM A 2016 CTV NEWS ARTICLE

“What most people don’t know is that today, natural gas already has a central place in Canada’s energy mix, meeting more than 30 per cent of the country’s energy needs... Looking to the future, we think there is significant opportunity for natural gas to affordably and efficiently meet even more of Canada’s residential, institutional and industrial energy needs. These efficiency gains and energy cost savings drive productivity and attract investment to Canada.”

– **TIMOTHY EGAN**, PRESIDENT AND CEO OF THE CANADIAN GAS ASSOCIATION, FROM A STATEMENT TO THE CANADIAN PARLIAMENTARY COMMITTEE ON NATURAL RESOURCES (FEBRUARY 26, 2013)

“In many parts of Canada, we are blessed with an abundance of clean, renewable electricity. A key component of any meaningful strategy to reduce GHG emissions must be to clean our electricity grids through significantly enhanced use of wind and other renewable energy sources in provinces like Alberta and Saskatchewan that are highly dependent on coal and natural gas for electricity generation.”

– **ROBERT HORNING**, PRESIDENT OF THE CANADIAN WIND ENERGY ASSOCIATION, FROM CANWEA.CA (SEPTEMBER 9, 2015)





Test your knowledge of Alberta's energy resources.

1) WHICH OF THE FOLLOWING ARE SOURCES OF ELECTRICITY IN BRITISH COLUMBIA?

- A) Hydro, Wind, Gas, Biomass, Solar B) Hydro, Coal, Solar, Gas
C) Nuclear, Wind, Solar, Coal, Gas D) Hydro, Nuclear, Solar, Coal

2) THE FOLLOWING PROVINCES EMIT THE MOST GHGS IN CANADA. PUT THEM IN ORDER OF THEIR GHG EMISSIONS FROM HIGHEST TO LOWEST:

- A) Quebec, Alberta, British Columbia, Ontario, Saskatchewan
B) Alberta, Ontario, Quebec, Saskatchewan, British Columbia
C) Saskatchewan, Ontario, British Columbia, Alberta, Quebec
D) Alberta, British Columbia, Ontario, Quebec

3) TRUE OR FALSE:

British Columbia generates the most hydropower out of any province or territory.

4) TRUE OR FALSE:

Metallurgical coal is used to generate electricity while thermal coal is used in making steel.

5) PUT THE FOLLOWING FOSSIL FUELS IN ORDER FROM LEAST GHGS TO MOST GHGS EMITTED WHEN BURNT:

- A) Gas, Oil, Coal B) Coal, Gas, Oil C) Oil, Gas, Coal D) Oil, Coal, Gas

6) NATURAL GAS IS LOCATED ___ BELOW GROUND?:

- A) 1 kilometre B) 500 metres C) 2-3 kilometres D) 150-750 metres

7) THE FIRST TIME IN HISTORY NATURAL GAS WAS TRANSPORTED VIA PIPELINE WAS:

- A) 2500 B.C.E.— made of clay B) 1965 C.E.—modern pipelines
C) 2001 C.E.—modern pipelines D) 500 B.C.E.— made of bamboo

8) BRITISH COLUMBIA HAS MORE WIND ENERGY THAN ALBERTA:

- A) True — B.C. generates 1500 MW of wind electricity and Alberta generates 489 MW
B) False — B.C. generates 489 MW of wind electricity and Alberta generates 1500MW.

9) WHICH OF THE FOLLOWING IS NOT A BENEFIT OF BIOMASS?

- A) You can burn wood leftover from logging operations
B) You can burn wood that was damaged by disease or insects
C) Burning biomass releases carbon that would otherwise not be released
D) Biomass burns gas from landfills

10) BRITISH COLUMBIA HAS THE CANADA'S ONLY TIDAL GENERATION PLANT.

- A) False — It's in Nova Scotia
B) True — It's in the Strait of Georgia

CROSSWORD/WORDSEARCH PUZZLE

S A S T O R A G E S O F
W A N H X H F U P I S O
I C A R B O N T A X T U
N O C A L R E B B O R R
D A Q S U N M I N E A M
G L B H F R C O R N W S
O A P A C I F I C L E F
D H I G H V O L T A G E
R A M O S E A M S J O R
S N A T U R A L T P B N

Questions

- 1) The most plentiful fossil fuel in the world: ____ (4 letters)
- 2) B.C.'s largest solar project: _____ (7)
- 3) The cleanest fossil fuel: _____ gas (7)
- 4) B.C. has a 7% _____ (6, 3)
- 5) Primary challenge for solar and wind energy (7)
- 6) B.C. is on the _____ ocean (7)
- 7) ____mills have large propellers (4)
- 8) B.C.'s natural gas is found in _____ Basin, Montney, Liard Basin and Cordova Embankment (4, 5)
- 9) ____fuel can be made of straw, grains and ____ (3, 4)
- 10) _____ - _____ transmission lines carry electricity (4, 7)

ANSWER KEY

ANSWERS TO ENERGY QUIZ (PG 24):

- 1) A
- 2) B
- 3) False — Quebec does
- 4) False — the opposite is true
- 5) A
- 6) C
- 7) D
- 8) B
- 9) C
- 10) A

ANSWERS TO CROSSWORD/WORDSEARCH (PG 25):

S	A	S T O R A G E						S	O	F	
W	A	N	H	X	H	F	U	P	I	S	O
I	C A R B O N T A X						T	U			
N	O	C	A	L	R	E	B	B	O	R	R
D	A	Q	S U N M I N E				A	M			
G	L	B	H	F	R	C O R N			W	S	
O	A	P A C I F I C				L	E	F			
D	H I G H V O L T A G E										
R	A	M	O	S	E	A	M	S	J	O	R
S	N A T U R				A	L	T	P	B	N	

- 1) Coal
- 2) Sunmine
- 3) Natural
- 4) Carbon tax
- 5) Storage
- 6) Pacific
- 7) Wind
- 8) Horn River
- 9) Bio, corn
- 10) High voltage

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