

# FOSSIL & NUCLEAR FUELS - Non Renewable Energy Comparison Chart

Name \_\_\_\_\_

	COAL	OIL	NAT. GAS	NUCLEAR Fission	Info. Sources
Chemistry	Heavy hydrocarbons	Range of hydrocarbons	Light hydrocarbons	Uranium	
Formation	LAND	OCEAN	Mostly Methane CH <sub>4</sub>	Basic solar system material	
Age	Sedimentary rock 300 - 400 mill years	Moves into "traps"		4.5 billion	
% reserves	FOSSIL FUEL	> 1 million years	FOSSIL FUELS		
Energy Content MJ/kg	USA Russia China India	USA _____ _____ _____ _____	USA _____ _____ _____ _____	USA 7% Australia 24% Kazakistan 17% Canada 9%	Miller and web
Years left	33	47	54	77000000	Answers.com Energy Density
Environmental Problems	~ few 100's	< 100 years	80-200 years	< 100 years U	
Global Warming					Miller
Related Issues	Syn Fuel	Oil sands/shale	LNG Methane Hydrate	Recycling - France Fusion	Miller Miller

**Know:**

**Environmental costs and benefits of energy types**

Which country / region has the highest reserves for each type of conventional fuel?

In which type of environment does coal form?

In which type of environment does oil form?

In which type of environment does natural gas form?

Which fuel sources power most of the world today?

Renewable resources vs non-renewable resources?

How could a government encourage sustainable energy use?

Which fuel sources are used in developing countries?

How do nuclear reactors produce power? What do they use as a fuel source?

Which energy source would cause a food / energy controversy?

What are the limits and benefits of hydroelectric power?

What are the limits and benefits of solar power?

What are the limits and benefits of wind power?

Know a few examples of highly destructive oil spills from history.

Know a few examples of nuclear disasters from history.

What material is found in oil shale?

Which is the cleanest burning fossil fuel?

Which fuel is carried by the trans-Alaskan pipeline?

Which fuel source is found in the Appalachian Mountains in West Virginia?

What was the Deepwater Horizon extracting?

How does Three Mile Island produce electricity?

Which energy type uses the heat of Earth

Which energy facility can interfere with fish migration

Which energy source has hydrogen and oxygen as the starting materials?

Which energy source can be made from corn or soybeans?

Which is Iceland's main source of energy?

How would a sustainable society emphasize energy sources and consumption?

How does passive solar heating work?