

THE ENERGY CRISIS

According to the International Energy Agency the world will need almost 60% more energy in 2030 than in 2002.

We depend on oil for about 85% of our transport, and for food, pharmaceutical and chemical production. Oil industry experts, however, estimate¹ that current supplies will only last for about 40 years. Natural gases and coal reserves will be depleted² too. Besides, burning fossil fuels produces carbon compounds whose emission intensifies natural climate change and heats the Earth to dangerous levels.

Since the international recognition of global warming, attention has been drawn to alternative energy sources as a way to reduce the consumption of fossil fuels. The most common types of renewable energy sources are wind power, solar power, and geothermal energy.

Wind energy harnesses the power of wind to propel³ the blades of wind turbines. The rotation of turbine blades is transformed into electrical current through an electrical generator. Solar power converts the sunlight that hits solar thermal panels to electricity, while geothermal energy uses the heat energy which is present underneath the Earth to drive turbines which power electric generators.

Hydrogen could be another clean alternative fuel, though large amounts of energy are needed to produce hydrogen from water.

Some experts suggest that nuclear power will be needed to bridge the gap⁴ between now and renewable future. But concerns⁵ remain about radioactive waste disposal and the risk of accidents. Nuclear reactors themselves are the greatest threat to human life. Once no longer in use, they cannot be dismantled⁶ but have to be left where they are, probably for centuries, leaking radioactive substances into air, water and soil. Nuclear fusion – a new form of nuclear power which combines atoms rather than splitting them apart – could be ready by around 2040, but that is too long to wait. That is the reason why many experts think a hybrid economy could be a possible solution. This means that rather than replacing hydrocarbons entirely, we should find ways to use less oil and to use it in a more efficient way.



GLOSSARY

- 1 calculate
- 2 used up
- 3 to move forward
- 4 to reduce the distance
- 5 worries
- 6 demolished

READING COMPREHENSION

● Answer the following questions.

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| <ol style="list-style-type: none"> ① Why is energy becoming a big problem for most of the world nations? ② Why is oil so important for our economy? ③ What are the main disadvantages of oil as a fuel? | <ol style="list-style-type: none"> ④ What are alternative energy sources? ⑤ Why isn't nuclear power safe according to some experts? ⑥ What is nuclear fusion? |
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ACTIVITIES



SPEAKING

● Talk about wind power, solar power and geothermal energy.

VOCABULARY

● Find in the text the English equivalents of the following words and expressions.

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|-------------------------------|---------------------------|
| ① Industria petrolifera | ⑥ Pannelli solari |
| ② Gas naturali | ⑦ Idrogeno |
| ③ Energia rinnovabile | ⑧ Reattori nucleari |
| ④ Energia eolica | ⑨ Economia ibrida |
| ⑤ Turbine | ⑩ Idrocarburi |