

## UNIT 1 RENEWABLE ENERGY AND RURAL DEVELOPMENT – Part 1



**Read the following text twice.**

Our everyday activities depend heavily on energy. Traditional fossil fuels like coal, oil and natural gas, however, pollute the environment, and it is becoming more and more expensive to find and extract them. Furthermore, we are running out of them. So, it is very urgent to find new sources to meet the increasing energy needs of the growing population of the Earth.

Eco-friendly, or green energy sources like solar and wind power, hydropower and biomass do not have a negative impact on the environment. They are also renewable, which means we will never run out of them as they are continuously replenished.

to extract – to take out, to remove

to replenish – to make full or complete again (e.g. 'He replenished my glass with mineral water.')

**Which of these energy resources are renewable?**

wind energy	yes
coal	no
oil	no
solar energy	yes
hydropower	yes
natural gas	no
biomass	yes

**Match the words to form phrases. You can go back to the text if you don't remember a phrase.**

fossil	fuel
depend	on something
to have	an impact on something
to meet	needs

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**Read the text below about the difference between renewable and non-renewable energy, and try to understand as much as possible. Don't use a dictionary.**

### **Renewable and non-renewable energy resources**

Over the last 200 years, an ever-increasing proportion of our energy has come from non-renewable sources such as oil and coal. While demand for energy rises, these resources are running out and scientists are exploring the potential of renewable sources of energy for the future.

All life on earth is sustained by energy from the sun. Plants and animals can store energy and some of this energy remains with them when they die. It is the remains of these ancient animals and plants that make up fossil fuels.

Fossil fuels are non-renewable because they will run out one day. Burning fossil fuels generates greenhouse gases and relying on them for energy generation is unsustainable. Hence the need to find more renewable, sustainable ways of generating energy. Renewable or infinite energy resources are sources of power that quickly replenish themselves and can be used again and again.

Estimates from international organisations suggest that if the world's demand for energy from fossil fuels continues at the present rate, oil and gas reserves may run out within some of our lifetimes. The estimated length of time left for oil is 50 years, while for natural gas it is 70 years. Coal is expected to last longer, about 250 years.

Source: [http://www.bbc.co.uk/schools/gcsebitesize/geography/energy\\_resources/energy\\_rev1.shtml](http://www.bbc.co.uk/schools/gcsebitesize/geography/energy_resources/energy_rev1.shtml)

to increase – to rise, to go up  
ever-increasing – continuously increasing  
to sustain – to keep up, to support  
to estimate – to calculate approximately

Now, check the meanings of the following important words and phrases.

proportion  
such as  
to rely on sg  
sustainable  
sustainable development  
sustainable future  
sustainability  
an estimate  
to estimate  
demand for sg  
a reserve

Read the text again, and then look at these sentences. Are they true or false on the basis of the text?

- |    |  |       |
|----|--|-------|
| 1. | About 200 years ago, people used a lot of oil and coal.                          | false |
| 2. | All life on earth depends on the energy of the sun.                              | true  |
| 3. | If we rely on non-renewable energy in the future, our life will be sustainable.  | false |
| 4. | Greenhouse gases are generated by burning fossil fuels.                          | true  |
| 5. | The energy in animals and plants comes from the sun.                             | true  |
| 6. | The estimated time left for coal reserves is 250 years, if demand does not grow. | false |

Match the words with their definitions.

proportion	part, share
such as	for example
demand	strong need

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## THE PASSIVE VOICE

Look at the sentence below.

**Renewable energy resources can be used again and again.**

It means: You can use renewable energy resources again and again. But the first sentence is more elegant. It is a passive sentence, while the second one is active. In formal texts, you will find a lot of passive sentences so it is important to understand them.

**How to form the passive voice?**

It has two elements: **be** + **V<sub>3</sub>**

You must always use 'be' in the right tense and form. So, if your sentence is in the present tense, you should use 'am', 'is' or 'are'. If it is in the past tense, use 'was' or 'were'. After auxiliary verbs like 'will', 'must', 'can', 'should' etc, you must use the infinitive form 'be'.

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Let's see some examples:

- The passive voice **is used** in formal texts.
- This house **was built** in 1972.
- Renewable energy resources **weren't considered** important 100 years ago.
- Wind energy **will be used** in more countries in the future.
- The energy of the sun **has been used** for a long time.

**Complete the following sentences with the correct forms of 'be'.**

Next year, a new power plant will \_\_\_\_\_ built near our town. (be)

Non-renewable energy sources must \_\_\_\_\_ used less often. (be)

Wood \_\_\_\_\_ first used as a source of energy thousands of years ago, when early humans learnt to make fire. (was)

How long has wind energy \_\_\_\_\_ used by humans? (been)

Oil and natural gas should \_\_\_\_\_ replaced by renewable energy sources. (be)

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**Forum topic:**

**What is the difference between global warming and climate change?**