

Oxford Revise | Geography | Answers

Chapter 39 Energy resource classification and use

All exemplar answers given are worth full marks.

1.

a)

- i) Wind
- ii) The energy source will not run out.
- iii) It will be an additional source of income for a farmer. It is environmentally friendly green energy.

b)

- i) A fossil fuel is a non-renewable energy resource formed from fossilised, buried remains of plants and animals.
- ii) They are finite and will eventually run out.
- iii) There are no direct carbon emissions and so minimal impact on climate change. The increasing cost of fossil fuel extraction makes renewable energy an economically viable and sustainable alternative. Sources of oil and natural gas are finite, which means that they will eventually run out and so an alternative source of power will be required. Although there is a high initial capital cost, running costs of renewables are far cheaper. There is a greater public awareness of the impact of a large carbon footprint on climate change and a desire to reduce this by using renewable energy. Solar panels and wind turbines can generate electricity in locations remote from the National Grid.

c)

- i) There is little or no vegetation left so it becomes a barren wasteland. The landscape can left scarred with tree stumps and industrial buildings and pylons. The water becomes black and polluted because of the debris and industrial waste. Toxic sludge and oil can be seen on the riverbanks. This will lead to the pollution and contamination of the soil. Oil spills escaping into the sea will cause oily tides and will have disastrous effects on the local habitat and many plants and animals will be destroyed. When all the oil has been extracted the equipment built to drill and pump it to the surface is frequently left to rust, causing great visual impact.
- ii) The area has been heavily industrialised. There may have been accidental or deliberate oil spills which have allowed oil to pollute rivers and streams. This may be because of poor technology or continued use of outdated drilling equipment allowing leakages. In Azerbaijan there may be a lack of environmental laws and legislation to both monitor and prosecute companies responsible for the pollution. Profit may be considered more important than any potential damage to the environment.

d)

- i) Oil spills, carbon emissions leading to climate change
Accept suitable alternative answers.

- ii) *HEP*: There will be habitat destruction over a wide area in the river valleys that are flooded. Changes to river flows and the physical barrier may stop the migration of certain species up or downstream.
Wind turbines: Onshore turbines are generally located in upland areas, often AONBs, and so can be visually intrusive on the landscape. There are concerns that offshore wind turbines have a negative impact on birds and fish and animals living in the sea.

2.

- a) Geographical conflict is when there are disagreements between groups on the impact of a new development or different potential land uses.
- b) There will be conflict between the indigenous people living in the taiga who use the forest sustainably and the commercial logging companies who wish to exploit the forest for timber.

Accept suitable alternative answers.