6.3 Impacts of Energy Insecurity and Strategies to Increase Supply: 10-minute Pack

AQA 8035 · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer in full sentences for questions worth 3 marks or more. Allow about 10 minutes for the whole pack.

1 Describe one impact of rising domestic energy bills on a UK household in winter.

(Total for Question 1 is 1 mark)

2 Explain how energy insecurity can increase costs for food production on farms in the UK, giving two linked points.

(Total for Question 2 is 2 marks)

3 Give two reasons why some countries explore for oil and gas in arctic or deep-sea locations despite environmental risks, naming one economic and one security reason.

(Total for Question 3 is 2 marks)

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4 Describe one difference between renewable and non-renewable energy sources, referring to availability or emissions.

(Total for Question 4 is 2 marks)

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5 Compare two environmental concerns associated with extracting fossil fuels from increasingly difficult or sensitive areas, naming the type of impact and an example for each, and state one clear comparison.

(Total for Question 5 is 3 marks)

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Mark scheme · 6.3 Impacts of Energy Insecurity and Strategies to Increase Supply: 10-minute Pack

Question 1

e.g. household cuts heating, leading to colder rooms and possible health problems for vulnerable people, oe **B1**

Answer: A household may cut back on heating to save money, leaving rooms colder and increasing health risks for elderly or young people.

Question 2

energy is needed for heating greenhouses, running machinery and refrigeration, oe **B1**

if energy prices rise, farm production costs increase and food prices may rise, oe **B1**

Answer: Farms use energy for heating greenhouses, machinery and refrigeration; when energy prices rise production costs increase, which can push up food prices.

Question 3

economic reason, e.g. the potential for large revenue from selling fuel and creating jobs, oe **B1**

security reason, e.g. to increase domestic energy security and reduce reliance on imports, oe **B1**

Answer: Economic: the potential for large revenue from selling fuel and creating jobs. Security: to increase domestic energy security and reduce reliance on imports.

Question 4

point 1, e.g. renewables are naturally replenished (wind, solar), whereas non-renewables are finite (coal, oil, gas), oe **B1**

linked detail, e.g. non-renewables release greenhouse gases when burned while many renewables produce little or no direct CO_2 emissions, oe **B1**

Answer: Renewable sources are naturally replenished, such as wind and solar, while non-renewable sources like coal and oil are finite; non-renewables release greenhouse gases when burned, whereas many renewables produce little or no direct CO_2 emissions.

Question 5

concern 1 with example, e.g. oil spills from offshore drilling can pollute coastlines and harm marine life, oe **B1**

concern 2 with example, e.g. deep coal or tar sands extraction can destroy peatland habitats and release stored carbon, oe **B1**

a clear comparative phrase showing difference or similarity, e.g. both damage habitats but one mainly affects marine ecosystems while the other releases large amounts of stored carbon on land, oe **B1**

Answer: Offshore oil drilling risks spills that pollute coastlines and harm marine life, while extracting coal from peat or tar sands destroys terrestrial habitats and releases stored carbon; both damage ecosystems but in different environments and with different long-term carbon impacts.

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