

Exercise walk-through

Distribution of Natural Energy Resources ■ 6.4

eXercise

You must be able to

- explain that energy resources are **unevenly distributed** 分布不均
- link distribution to geology and geography
- discuss the consequences for trade and security

Method — Uneven distribution

Energy resources are **unevenly spread** across the world because they depend on **geology and geography**:

- **Fossil fuels** form where ancient organic matter was buried (specific oil/coal regions).
- **Solar** is best in sunny low latitudes; **wind** where it is consistently windy; **geothermal** near plate boundaries; **hydro** where there are large rivers.

Method — Consequences

Countries with few resources must **import** energy, affecting **trade**, prices, and **energy security**. Rich deposits can bring wealth but also conflict.

Method — A worked link

A country near a tectonic boundary can use **geothermal** energy, while a flat, calm, cloudy country may rely on imports or other sources.

Practice 2.1 ■ 1 mark

Why are energy resources unevenly distributed?

Solution 2.1

Method: Uneven distribution

Worked steps

They depend on geology and geography, which vary from place to place **B1**.

Practice 2.2 ■ 1 mark

Where is geothermal energy most available?

Solution 2.2

Method: Uneven distribution

Worked steps

Near plate boundaries / volcanic regions **B1**.

Practice 2.3 ■ 1 mark

What must a country with few energy resources often do?

Solution 2.3

Method: Consequences

Worked steps

Import energy **B1**.

Exam-style 3.1 ■ 1 mark

Solar power is most available in regions that are

- A** cloudy and dark
- B** sunny (often low latitude)
- C** near the poles only
- D** underground

Solution 3.1

Method: Uneven distribution

A cloudy and dark

B sunny (often low latitude) 

C near the poles only

D underground

Worked steps

B — sunny (often low latitude).

Exam-style 3.2 ■ 1 mark

A country has strong, steady coastal winds but no fossil fuels.

(a) Suggest a suitable energy source.

(b) Explain how uneven resource distribution affects a country's energy choices and security.

Solution 3.2

Method: Uneven distribution

Worked steps

(a) Wind energy **B1**. (b) A country uses the resources its geography provides; those lacking resources must import, which affects trade, prices, and energy security (dependence on others) **M1 M1 A1**.

Exam-style 3.3 ■ 2 marks

Explain why a nation near a plate boundary might develop geothermal energy.

Solution 3.3

Worked steps

Near a plate boundary, heat from the Earth is close to the surface, so geothermal energy can be tapped to generate power **M1** **A1**.