Energy: from fossil fuels to windmills

VOCABULARY PRACTICE
UPPER-INTERMEDIATE | B2

Name: _____ Date: _____

1 Match each precise term with its definition.

1 baseload power ____	**a** the minimum continuous level of power a grid must supply at all times
2 intermittency ____	**b** the inconsistent, variable output characteristic of some renewable energy sources
3 grid parity ____	**c** the point at which a renewable energy source becomes as cheap as conventional power without support
4 decarbonisation ____	**d** the process of reducing carbon emissions across an economy or sector
5 energy density ____	**e** the amount of energy stored per unit of mass or volume of a fuel source
6 subsidy ____	**f** financial support provided by a government to reduce the cost of a particular activity
7 stranded asset ____	**g** an investment that loses value prematurely due to changing market or regulatory conditions
8 peak demand ____	**h** the highest level of electricity demand within a given period
9 energy security ____	**i** a country's reliable access to sufficient, affordable energy supplies
10 levelised cost of energy ____	**j** a standardised measure comparing the total cost of generating electricity across different sources

2 Choose the word with the most suitable connotation.

1 For the minimum continuous power level a grid must supply: baseload power / peak surplus.

2 For inconsistent, variable renewable output: intermittency / constant supply.

3 For the point renewable energy becomes as cheap as conventional power: grid parity / permanent subsidy dependence.

4 For reducing carbon emissions across an economy: decarbonisation / continued fossil fuel reliance.

5 For financial support reducing an activity's cost: a subsidy / a full-cost market price.

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6 For an investment losing value prematurely: a stranded asset / a secure investment.

7 For the highest level of electricity demand: peak demand / average consumption.

8 For a country's reliable access to sufficient energy: energy security / energy vulnerability.

3 Complete the energy collocations with one word.

1 _____ power (= minimum continuous supply needed)

2 manage _____ (= inconsistent renewable output)

3 reach grid _____ (= cost parity with conventional power)

4 pursue _____ (= reducing carbon emissions economy-wide)

5 a government _____ (= financial support for an activity)

6 a _____ asset (= loses value prematurely)

7 meet _____ demand (= the highest level of electricity use)

8 ensure energy _____ (= reliable access to sufficient supply)

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4 Complete the case notes with words and phrases from the box.

baseload power | decarbonisation | energy density | energy security | grid parity | intermittency | levelised cost of energy | peak demand | stranded asset | subsidy

Case A: Grid operators must maintain sufficient 1 _____ even as renewable sources, subject to 2 _____, contribute a growing share of total generation.
Case B: Solar power reached 3 _____ in the region, becoming cheaper than coal even without government 4 _____.
Case C: Analysts warned that continued investment in coal plants risked creating a 5 _____ as decarbonisation policy accelerated.
Case D: The government prioritised 6 _____, aiming to reduce national emissions substantially within a decade.
Case E: Utilities struggled to meet 7 _____ during the heatwave, straining the grid to its limits.
Case F: Policymakers weighed the 8 _____ across different energy sources to compare their true cost.
Case G: Concerns about 9 _____ prompted the country to diversify its energy imports, while researchers explored fuels with higher 10 _____ for aviation.

5 Read the text and answer the questions briefly.

The economics of the energy transition

Energy economists increasingly point to grid parity as a significant milestone in the transition away from fossil fuels, since renewable energy no longer requiring subsidy to compete on cost fundamentally changes the economic calculus facing utilities and policymakers alike. However, achieving grid parity for generation costs alone does not resolve the intermittency challenge, since reliable baseload power still requires either substantial energy storage or backup capacity, both of which add costs not always fully reflected in simple levelised cost comparisons. Meanwhile, continued investment in fossil fuel infrastructure carries growing stranded asset risk, as tightening decarbonisation policy threatens to render existing plants prematurely obsolete well before the end of their expected operational lifespan.

1 What do energy economists increasingly point to as a significant milestone? _____
2 What does renewable energy no longer requiring subsidy fundamentally change? _____
3 What challenge does achieving grid parity for generation costs alone not resolve? _____
4 What does reliable baseload power still require? _____
5 What growing risk does continued fossil fuel investment carry? _____

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6 What threatens to render existing plants prematurely obsolete? _____

6 Rewrite each sentence using the word in capitals. Do not change the meaning.

1 Solar power became as cheap as coal without government support. GRID PARITY _____

2 The coal plant risked losing value prematurely as policy shifted. STRANDED ASSET _____

3 The country reduced its carbon emissions across the whole economy. DECARBONISATION _____

4 The grid struggled to meet the highest level of demand. PEAK DEMAND _____

OVER TO YOU

Write a 120-150 word account analysing the economic challenges of transitioning a national grid to renewable energy, distinguishing observation from policy argument.

[ ] Use at least twelve target expressions. [ ] Control connotation carefully. [ ] Avoid unsupported assumptions.

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ANSWER KEY

1 Precise terms

1 a 2 b 3 c 4 d 5 e 6 f 7 g 8 h 9 i 10 j

2 Connotation

1 baseload power 2 intermittency 3 grid parity 4 decarbonisation 5 a subsidy 6 a stranded asset 7 peak demand 8 energy security

3 Collocations

1 baseload 2 intermittency 3 parity 4 decarbonisation 5 subsidy 6 stranded 7 peak 8 security

4 Case notes

1 baseload power 2 intermittency 3 grid parity 4 subsidy 5 stranded asset
6 decarbonisation 7 peak demand 8 levelised cost of energy 9 energy security 10 energy density

5 Reading - suggested answers

1 Grid parity.
2 The economic calculus facing utilities and policymakers alike.
3 The intermittency challenge.
4 Either substantial energy storage or backup capacity.
5 Growing stranded asset risk.
6 Tightening decarbonisation policy.

6 Rewriting - possible answers

1 Solar power reached grid parity. 2 The coal plant risked becoming a stranded asset.
3 The country pursued decarbonisation. 4 The grid struggled to meet peak demand.

Over to you

Answers will vary. Check lexical precision, appropriate connotation and separation of fact from inference.