Question 1

ENERGY

Energy on location

2 points

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ENERGY

1

Energy on location

The port area has a large demand for energy, but it is also a great place to produce energy.

Choose one of the three pictures below, and tell us what possibilities you see to produce energy on this location.

1

2

3

QUESTION 2

ENERGY

A lot, more, most

●●● 3 points

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2

A lot, more, most

The TV, the lights, the heating, the refrigerator... a house uses a lot of energy. Imagine how much energy the entire port would need to run everything. The chemical and petrochemical industries are major energy consumers because they heat products to high temperatures.

The port therefore uses a lot of energy; around 70,000,000,000 kWh per year. For comparison, an average family uses 3,500 kWh per year.

How long does it take the port to consume the same amount of energy as a family consumes in a year? In other words, how long does it take for the port to consume 3500 kWh?

Now convert this result into a more precise unit of time.

QUESTION 3

ENERGY

Elektricity for sale!

●● 2 points

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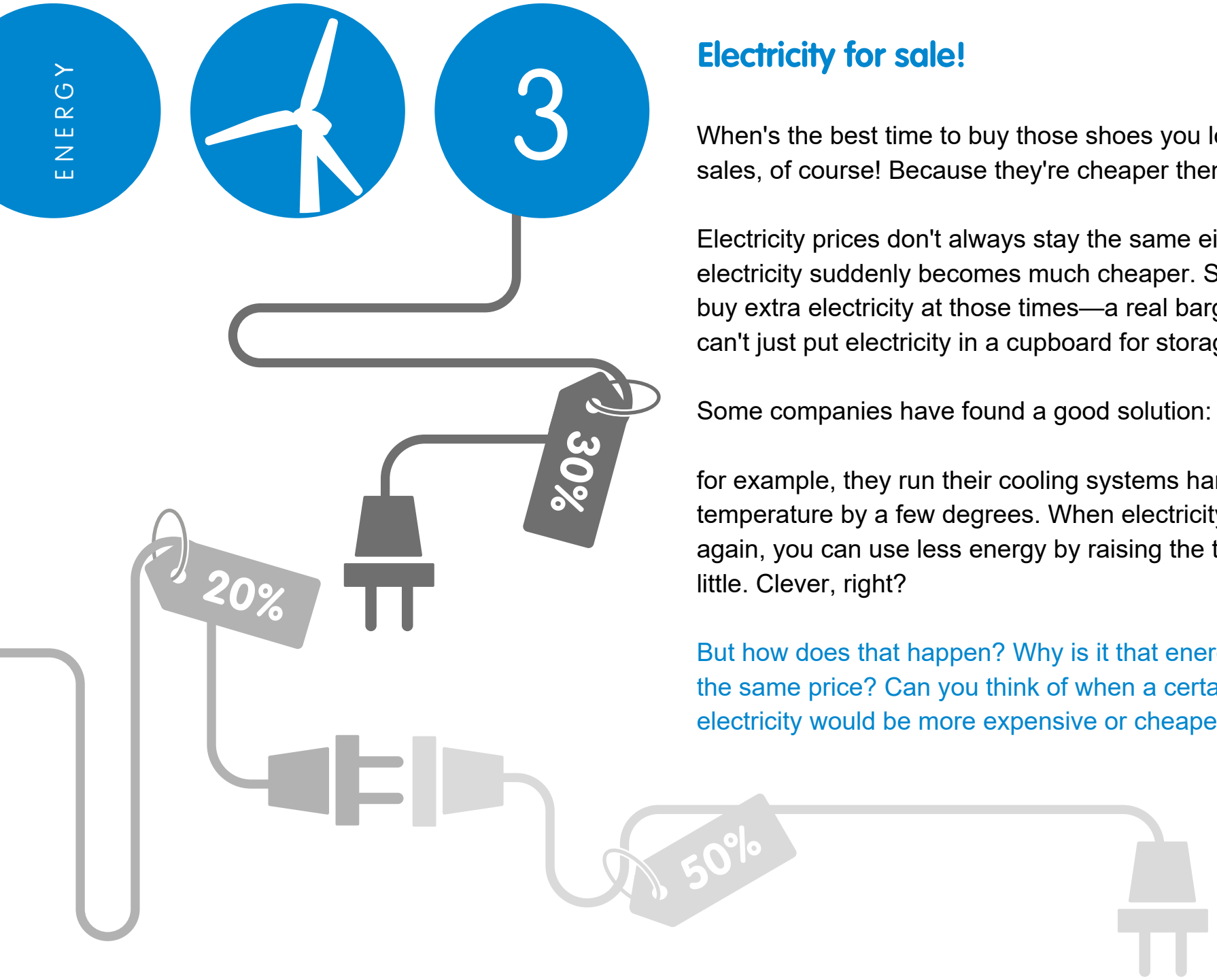
ENERGY

3



Electricity for sale!

When's the best time to buy those shoes you love? During the sales, of course! Because they're cheaper then.

Electricity prices don't always stay the same either. Sometimes, electricity suddenly becomes much cheaper. Smart companies buy extra electricity at those times—a real bargain! But you can't just put electricity in a cupboard for storage.

Some companies have found a good solution:

for example, they run their cooling systems harder to lower the temperature by a few degrees. When electricity prices rise again, you can use less energy by raising the temperature a little. Clever, right?

But how does that happen? Why is it that energy isn't always the same price? Can you think of when a certain type of electricity would be more expensive or cheaper?

QUESTION 4

ENERGY

Mini-quiz

●●●● 4 points

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ENERGY

4

Mini-quiz

1

Why do people say nuclear energy is bad?

A. The water they use gets contaminated.

B. The fume is toxic.

C. There's no good solution yet to store the waste (uranium).

2

What height are windturbines in the port area, give or take?

A. 50 meters
(two regular swimming pools)

B. 100 meters
(as high as the Atomium)

C. 200 meters
(twice as high as the Atomium)

3

The port is increasingly focusing on renewable energy. Which of the following renewable energy sources provides the most energy to the port?

A. Wind energy

B. Solar energy

C. Biomass

4

We want more sustainable energy. Unfortunately, there isn't enough yet. How much of all the energy we use today is sustainable?

A. 70%, we are on the right track

B. 19%, a mix of wind, solar, water and biomass

C. 2%, we need to urgently improve this