

How Battery Energy Storage Systems Work

Choose the correct answer.

1. According to the video, which type of energy storage system accounts for over 90% of all stored energy?

- A. Lithium-ion batteries
- B. Compressed air systems
- C. Pumped hydroelectric power plants
- D. Supercapacitors

2. Why have lithium-ion batteries seen the fastest growth in the past decade?

- A. They are the cheapest option available
- B. They have a very high energy density for their size
- C. They are the most environmentally friendly
- D. They last longer than other battery types

3. What happens in a pumped hydroelectric system when electricity is cheap?

- A. Water is allowed to flow down to generate electricity
- B. The system is shut down completely
- C. Water is pumped to a higher elevation
- D. Electricity is sold to other countries

4. What change occurred around 2010 regarding energy storage systems?

- A. Pumped hydroelectric systems became obsolete
- B. Other technologies began to become more economically viable
- C. The first lithium-ion battery was invented
- D. Governments banned traditional storage methods

5. Which devices are mentioned as examples that use lithium-ion batteries?

- A. Cars, trains and aeroplanes
- B. Refrigerators, washing machines and ovens
- C. Laptops, mobile phones and cameras
- D. Medical equipment and industrial machinery

6. What is described as the current trend for power generation?

- A. Using more coal and oil
- B. Focusing on nuclear energy
- C. Developing better storage systems only
- D. Focusing on renewable energy sources

Choose only the correct statements.

- 1. The speaker explains that energy storage systems can be mechanical, thermal, or chemical.
- 2. Pumped hydroelectric power plants store energy by raising water to a lower elevation.
- 3. Lithium-ion batteries are commonly used in small electronic devices due to their high energy density.
- 4. The speaker states that energy storage systems have been important for over 150 years.
- 5. The main focus of power generation is shifting towards renewable energy sources.
- 6. Compressed air energy storage is a type of thermal energy storage system.
- 7. The speaker believes that battery energy storage systems will become more common in the future.