THE SHORT-TERM ENERGY STORAGE AS ENERGY SOURCE

AES 7.2

After charging the short-term energy storage, different consumers can be connected:

Experiment 1 – driving a propeller:

- Set the propeller on the engine/generator brick
- Connect the brick with the short-term energy storage

Result:
The propeller starts to rotate.

Experiment 2 – driving a lamp:

- Screw in the lamp 2.5V into the lamp socket of the brick
- Connect the brick with the short-term energy storage

Result:
The lamp glows.

Experiment 3 – driving a electric car:

- Connect the electric car with the short-term energy storage

Result:
The electric car starts moving. If the short-term energy storage is kept in hand, you can follow the moving car.

Cross-reference to practise:

This experiment demonstrates the principle of the electric car. In practise, the battery (energy storage) of the electric car will be charged at night. In the morning you can read the charge status off the battery display. This is similar to the charging indicator of short-term energy storages.

Additonal tasks:

Fathom the current technical state of development of electric cars.

Name the advantages and disadvantages of electric cars.
Scope, cost, engine noise, possibility of charging

Also, a "hybrid car" has a built-in energy storage. This memory gets charged by a generator when braking. If the vehicle requires little energy (e.g. when waiting at a traffic light), the car switches ts drive mode from gasoline to electric.

Additonal tasks:
There are also hybrid cars which are powered by fuel cells or current.

- Fathom the current technical state
- Discuss advantes and disadvantages of these type of cars

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