Physics

Renewable energy resources

Definition

- renewable energy resources are sources that will never run out
- energy is renewed as it is used

Wind power wind turbines

- They are built in exposure areas such as moves and coasts
- the blades turn generator produces electricity

Advantages

- no pollution
- low running costs no fuel needed
- can be removed without permanent DAMAGE

Disadvantages

- its spoils the view because 1500 turbines will be equal to one coal station
- and reliable because it depends
- EXPENSIVE initial cost

Solar cells

- They produce electricity directly from the sunlight

- They are used in calculators watches satellite and road signs
- Advantages
- are they cause no pollution
- effective even in cloudy countries
- Disadvantages
- High initial cost
- on the generate electricity during day time

Geothermal and hydroelectric power

Geothermal

- uses underground thermal energy hot rocks near surface radioactive Decay of Uranium
- It generate electricity or directly heats the buildings

Hydroelectric

- it uses falling water turbines and generators
- Advantages are
- reliable except drought
- can respond instantly on electricity

Disadvantages

- flooding lands destroys habitats farmland and scenery

- Methane and carbon dioxide released from rotating vegetation
- expensive initial setup

Wave power and tidal bridges

wave power

- many small turbines connected to generator

Advantages

- no fuels cost
- useful for small Islands

Disadvantages

- disturb the seabed
- harmful for marine life
- It's spoils the view
- dangerous for boats
- unreliable

Tidal Barrage

- A dam like structure with turbines at the bottom
- It uses gravitational pull of moon and sun to Tidal movement and then it will generate the electricity

Advantages

- no fuel cost
- minimal running costs

- environmently friendly
- Disadvantages
- alters animal habitats
- its spoils The scenery
- it blocks the boat

Bio fuels

- biofuels are made from plant products and animal waste
- they can be solid liquid or gas
- when we burnt so electric city will produce

Advantages

- Renewable
- carbon neutral

Disadvantages

- expensive to produce
- large scale farming me lead to deforestation and food shortages