

# Renewable Energy Sources

- Renewable energy sources are ones that will not run out. They are non-finite resources.
- Types of renewable energy sources:
- Hydroelectric power (HEP)
- Solar energy
- Geothermal energy
- Tidal energy
- Wind energy

# Hydroelectric Power (HEP)

Energy created by the power of falling water.

A dam is used to trap the water.  
A small part of the dam is opened and the water rushes out.

The water moves a turbine which generates electricity.  
E.g. Pollaphuca Reservoir Co.  
Wicklow, Ardnacrusha Co. Clare.



# Solar Energy

Using the heat & light from the sun to create energy.

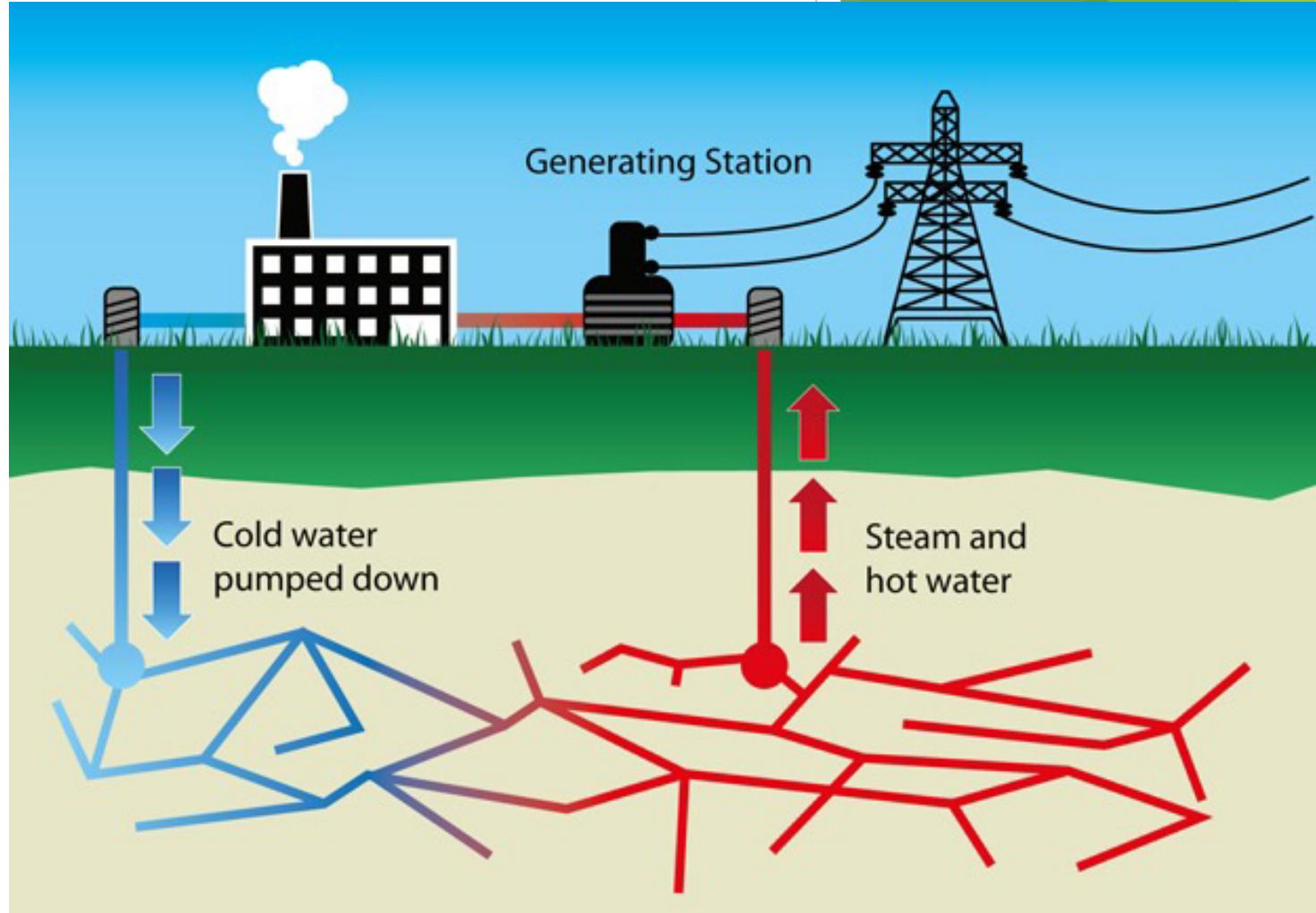
Solar cells on solar panels trap the light & heat from the sun.

The light & heat is then converted to electricity.



# Geothermal Energy

- Energy created by using the heat from the Earth's crust.
- Cold water is pumped down where it is heated by the hot rocks.
- Hot water is pumped back up to the surface.
- E.g. Iceland.



# Tidal Energy

- Using the power of rising & falling tides to create energy by moving turbines underneath the surface of the water.
- E.g. North East Coast & Strangford Lough



# Wind Energy

- The power of the wind is used to turn large turbines which produces energy.
- Increasing popular source of renewable energy.
- Wind farms are being built across the country.
- Wind farms can been seen as visual eyesores and some people are against their construction.



## 2014 Section One &gt; Section 1 &gt; Question 10A

**10A. RENEWABLE ENERGY**

The photograph shows a wind farm at Carnsore Point, Co. Wexford.

Name **three** other types of renewable energy.

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_



**2006 Paper > Section 2 > Question 2 > Part B**

The photograph shows a dam and hydroelectric station on an Irish river.



- (i) Name **one** economic benefit **and one** environmental benefit of hydroelectricity.
  
- (ii) Outline **two** objections which might be made to the development of a hydroelectric scheme such as the one shown.

(10)

**SHOW MARKING SCHEME »**

2013 Section 2 > Section 2 > Question 3D

### 3D. Exploitation of Peat Bogs



- (i) Describe **two** ways in which technology has aided in the exploitation of peat.
- (ii) Explain **two** reasons why the majority of Bord na Móna's commercial peat production takes place at the raised bogs in the Midlands.

(10)

