Energy Resources

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INTRODUCTION

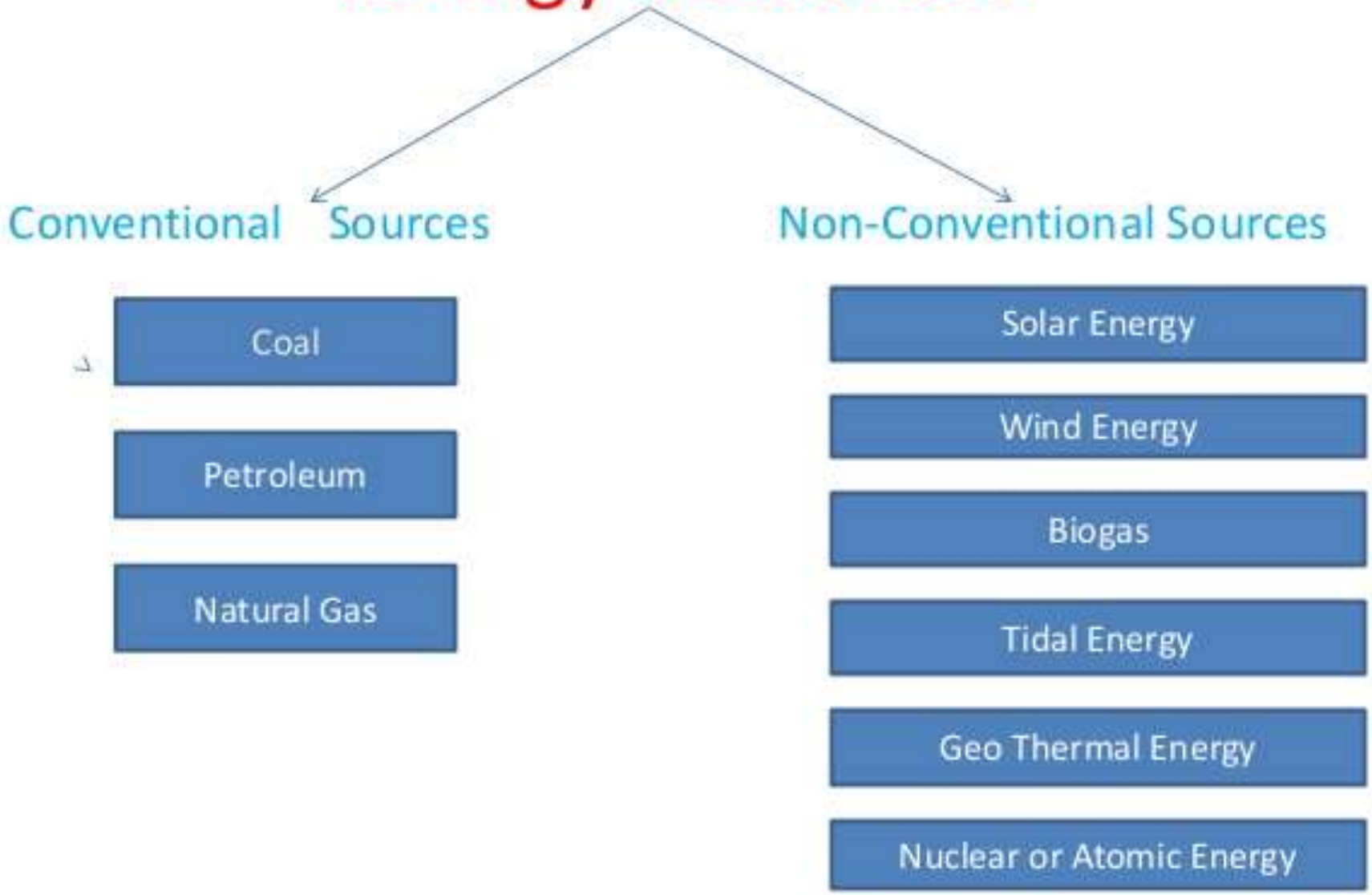
Energy

Energy is capacity to do work . Energy can be changed from one form to another but it neither be created nor be destroyed.

Energy Resources

An energy resources is something that can produce heat, power life , move objects ,or produce electricity .matter that store energy is called fuel .

Energy Resources



Conventional Energy Resources

Coal

- Coal is an inflammable organic substance composed of carbons found in sedimentary rocks.
- Formation- C is formed due to compression of plant material under heat and pressure over million of years.
- Variety of forms depending on-

a. Degree of compression b. Depth c. Time of Burial.

- Uses

Power generation(70%)

Energy supply to industries.

Domestic uses

Vehicles

Types of Coal

Anthracite	Bituminous	Lignite	Peat
1. 80% and above carbon. 2. Highest quality having high coke content. 3. Production/Occurence is less. 4. Less smoke and high heating value(less impurities) 5. Found at great depth 6. Smelting of Iron	1. 60 to 70% 2. Buried deep and subjected ti increased temperature. 3. High calorific value(less moisture) known as metallurgical coal. 4. Spcl value for smelting iron in blast furnance 5. Widely used	1.50-60% 2.Low grade brown coal which is soft with high moisture content(more smoke) 3. Used for gen.electricity. 4. Principle reserves in Neyveli in T.N	1. Below 40% 2. Decaying plants in swamps produce peat. 3. Lot of moisture produce smoke and less heating capacity. 4. Used for domestic purpose.

Petroleum

- Petroleum or mineral oil is next energy after coal. Crude oil. Coal cant be used for road vehicle and transportation

- Uses- fuel for heat and lighting
- Generation of electricity
- Lubricants for machinery
- Raw material for manufacturing industries.
- Used in vehicles
- " Nodal Industry' for synthetic textiles,fertilisers and numerous chemical industries.
- Cooking Medium
- Used in cosmetics

Natural Gas

- An imp clean energy bcz do not left residue and produces less pollution thus called environment friendly.(fuel for the pr.century- low carbon dioxide emission)
- Found/Occurences- found in association with or without petroleum.
- Uses-
- Raw Material as well as Source of Energy
- Petrochemical industries -Vehicles(CNG)
- Fertilizer Industries -Produces Thermal
- Thermal industry(power plants)

RENEWABLE ENERGY RESOURSES

SOLAR ENERGY

- Solar energy is available in large amount, because ultimate sources of energy in an ecosystem is sun . Thus considered major future sources of energy .

  it is incident on green plants , they carry out photosynthesis in the presence of CO_2 , water and sunlight and make their own food ,thus maintain life . Their death produces biomass . Example – Solar light

HYDRO ENERGY

- Water is made to fall from height to rotate turbine, which help generate electricity ,is known as hydro energy.

APPLICATION

Hydro power use the energy for moving water for a variety of useful application , hydroelectricity generates electricity by the gravitational force of falling water . It use water in dams to drive turbines and generates which turns Mechanical energy into Electrical energy.

WIND ENERGY

- Wind is allowed to rotate the blades of wind mills , which rotates turbines to generate electricity.

APPLICATION

- The wind is a free clean and in exhaustible energy sources . It has served human kind well for many centuries by propelling ships and driving ,wind turbines to grind grain and pump water .
- DENMARK was the first country to use wind for generation of electricity.


Thank you!