

ENERGY CONSERVATION

UNIT-1

Basics of Energy

1. Basics of Energy

1.1 Classification of energy- primary and secondary energy, commercial and non commercial energy, non-renewable and renewable energy with special reference to solar energy, Capacity factor of solar and wind power generators.

1.2 Global fuel reserve

1.3 Energy scenario in India and state of U.P. Sector-wise energy consumption (domestic, industrial, agricultural and other sectors)

1.4 Impact of energy usage on climate

Classification of energy

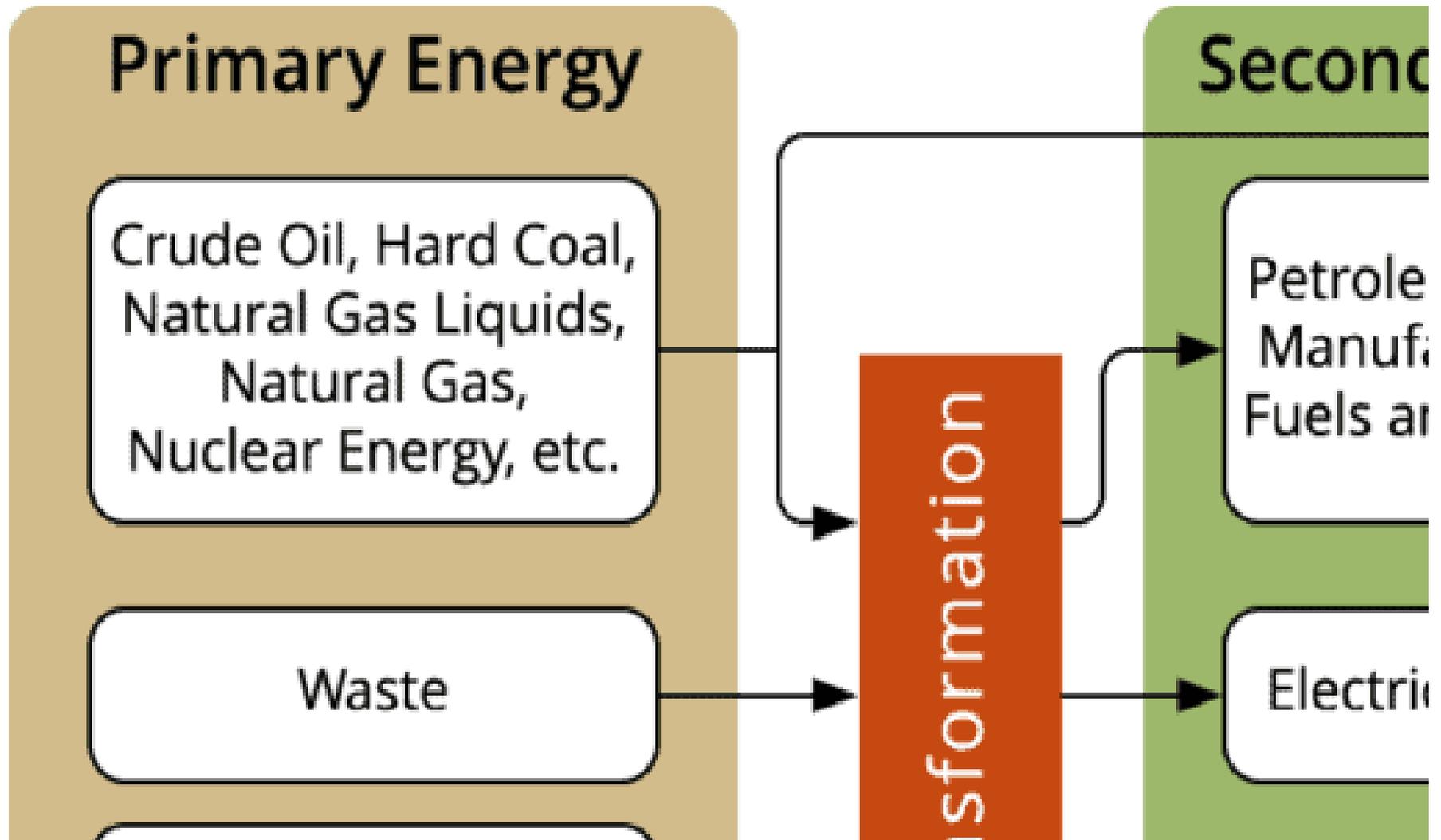
ON THE BASIS OF DIFFERENT PARAMETERS ENERGY
CAN BE CLASSIFIED INTO VARIOUS PARTS

1. primary and secondary energy

2. commercial and non commercial energy,

3. non-renewable and renewable energy

1. primary and secondary energy



Primary energy & Secondary energy

Primary energy consists of unconverted or original fuels. **Secondary energy** includes resources that have been converted or stored. For example, **primary energy** sources include petroleum, natural gas, coal, biomass, flowing water, wind, and solar radiation.

Secondary

energy is **energy** produced by converting so-called **primary energy**, or **energy** available in its natural state in the environment. Electricity, refined automotive fuel, hydrogen, compressed air and microwave radiation are all types of **secondary energy**.

Primary energy sources are those that are either found or stored in nature. Common primary energy sources are coal, oil, natural gas, and biomass (such as wood). Other primary energy sources available include nuclear energy from radioactive substances, thermal energy stored in earth's interior, and potential energy due to earth's gravity. The major primary and secondary energy sources .

Primary energy sources are mostly converted in industrial utilities into secondary energy sources; for example coal, oil or gas converted into steam and electricity. Primary energy can also be used directly. Some energy sources have non-energy uses, for example coal or natural gas can be used as a feedstock in fertiliser plants.