

Energy Past and Present Scenario:

- International Energy Agency (IEA) publishes yearly ~~class~~ comprehensive energy data.
- Energy production is 80% fossil.
- India is the third largest producer of electricity in the world.
- India's energy sector is dominated by fossil fuels, in ^{particular} ~~general~~ coal.

→ Sectorial Energy Conservation: (*) Energy Intensity calculated at sector level.

(*) When source energy is considered, energy is calculated for 5 sectors: four end user and one electricity producing sector.

(*) When total energy is considered, energy is calculated for 4 end user sectors only.

(*) End use sectors: (a) Residential ~~28.6%~~ (c) Industrial ~~24.1%~~
(b) Commercial ~~17.5%~~ (d) Transport ~~31.8%~~

→ Transportation sector:

(*) Consists of all vehicles. Primary purpose is transporting people/goods.

Eg. trucks, buses, trains, ~~ships~~ ships, etc.

→ Industrial sector:

(*) Consists of all facilities and equipments used for producing, processing or assembling goods.

Eg. agriculture, mining, construction, etc.

→ Residential sector:

(*) Consists of living quarters ~~areas~~ for private households.

Eg. Heater, Air conditioner, etc.

→ Commercial sector:

Eg. Street lighting, water & sanitary services, etc.

→ Electricity sector:

(*) Sector that generates electricity.

Phase 1

- Step 1: Plan, walk through, ~~and~~ Interview with Energy Manager.
Step 2: Conduct of brief meeting/ awareness ~~phase~~ programme.

Phase 2

- Step 3: Data gathering, flow diagram & other diagrams.
Step 4: Survey & monitoring.
Step 5: ~~the~~ Conduct of detailed trials/experiments.
Step 6: Analysis of energy use.
Step 7: Identification of E.C opportunities.
Step 8: Cost benefit Analysis.
Step 9: Reporting & Presentation.

Phase 3

- Step 10: Implementation & follow up.

Role of Energy Managers:

- ① Prepare an ~~annual~~ annual Activity Plan and present to management.
- ② Establish Energy Conservation cell within the firm.
- ③ Initiate activities to improve monitoring and reduce costs.
- ④ Analyse equipment performance.
- ⑤ Ensure proper functioning of instruments.
- ⑥ Prepare info. material and conduct internal workshops.
- ⑦ Improve disaggregating of energy consumption.
- ⑧ Establish methods on how to calculate energy consumption.