

### Energy Past and Present Scenario:

- International Energy Agency (IEA) publishes yearly ~~base~~ comprehensive energy data.
- Energy production is 80% fossil.
- India is the third largest producer of electricity in the world. <sup>particular</sup>
- India's energy sector is dominated by fossil fuels, in ~~general~~ <sup>particular</sup> 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 ~~25.6%~~ (c) Industrial ~~41.09%~~  
(b) Commercial ~~12.52%~~ (d) Transport.

→ 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 ~~sector~~ 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, walkthrough, ~~note~~ 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.