

# AN ENGINEER'S VIEW ON RENEWABLE ENERGY

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## OVERVIEW

- Urbanization.
- Global Warming.
- Depletion of Fossil Fuel Supplies.
- Deterioration of Air Quality.
- **Definite Need for Renewable Energy Sources.**

## LIKELY SOURCES OF RENEWABLE ENERGY

- **Solar Energy**
  - **Using Photovoltaic Cells**
  - Limitations are: geography, typography, weather.
  - Small Output

## LIKELY SOURCES OF RENEWABLE ENERGY (Cont'd)

- **Wind Power**
  - **Wind turbines**
  - Limitations are: Land Resources, Wind Speeds.

## LIKELY SOURCES OF RENEWABLE ENERGY (Cont'd)

- **Wave Power**
  - **Water Turbines**
  - Limitations of Wind and Water Turbines: Distance from Consumers, Environmental and Ecological issues.

## OTHER FRINGE SOURCES OF RENEWABLE ENERGY

- **Man-made Fossil Fuel:**
  - **Bio-Diesel, Ethanol**
- **Waste to Energy**
- **Hybrid Vehicles**
- **Solar Heating**

## HOLISTIC APPROACH

- Financial Cost not good measurement for Savings.
- Total Energy Consumption includes:
  - Prototyping, Manufacturing, Transportation, Erection, Maintenance and De-commissioning
- Costs of Land and Other Resources

## CONCLUDING REMARKS

- Total and Resolute Support for use of Renewable Energy.
- Adopt Sensible and Achievable Target Percentage of Renewable Energy.
- Holistic approach to energy calculations.
- Balance Tariff, Land Resources, Visual Intrusion, Pollution and Ecology
- Public Awareness of the Above Issues.

THANK YOU  
FOR LISTENING