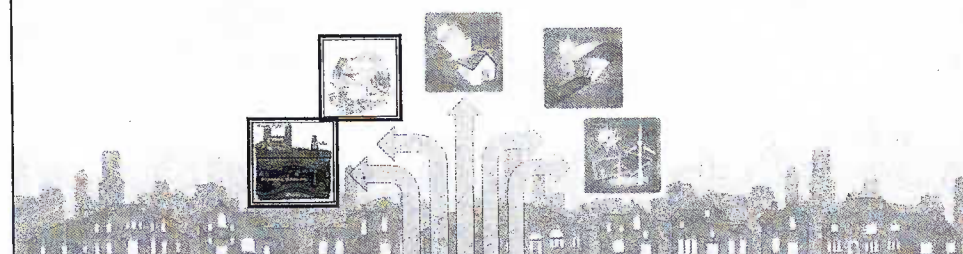


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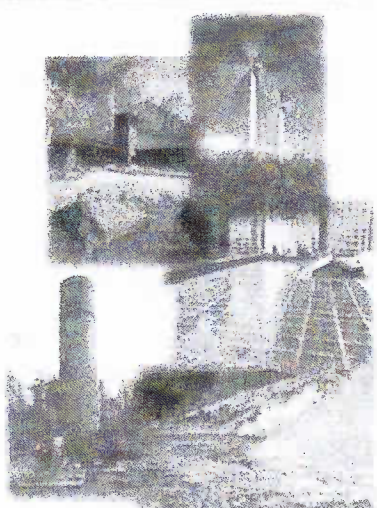
Capacity Building Program (Formulation of Local Energy Development Plan)



e – Secure Mo
e – Safety Mo
e – Diskarte Mo

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Renewable Energy (RE)



- **B**iomass/**B**iofuels
- **G**eothermal
- **S**olar
- **H**ydropower
- **O**cean
- **W**ind

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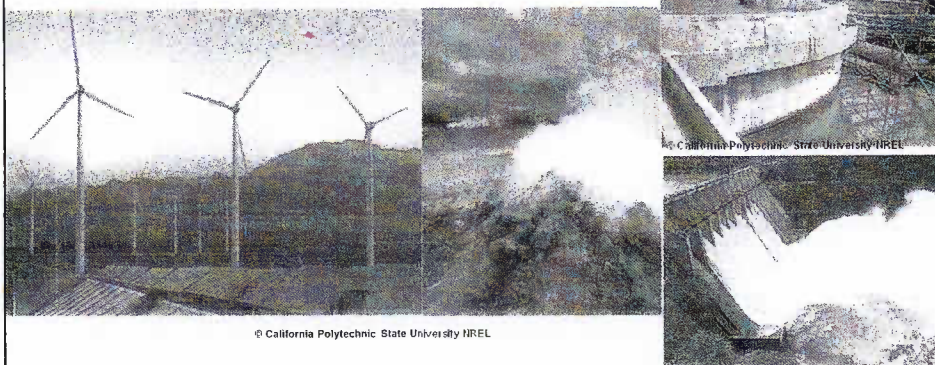
What is Renewable Energy (RE)



- It refers to energy obtained from the continuing or repetitive currents of energy occurring in a natural environment
- There is no lower or upper limit on the total quantity of supply found in nature.
- Supply is renewed regularly and can supply energy requirement continuously.

RENEWABLE ENERGY SYSTEMS

- refers to devices or technologies which convert RE resources into useful energy forms like heat, electrical and mechanical energy



Features of RE Sources and Systems

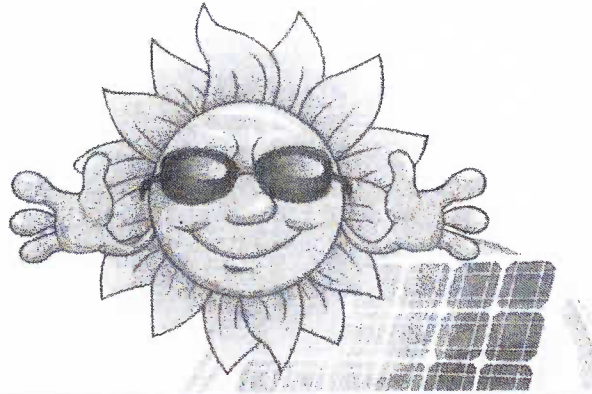
- **Renewable** - have stock of supply and can be managed in sustainable manner;
- **Indigenous** - locally-available while RE devices and systems can be manufactured locally depending on the availability of the market.
- **Environment-friendly** – RE technologies have minimal pollution emissions and thus promote sustainable development.

Features of RE Systems

- **Decentralized** – can be installed and operated singly or individually and autonomously by the user; highly applicable even in off-grid, far-flung areas of the country.
- **Modular**- exhibit extent of elasticity such as in the aspect of design and sizing; can be installed or dismantled more easily relative to conventional with very few complications.

Solar Energy

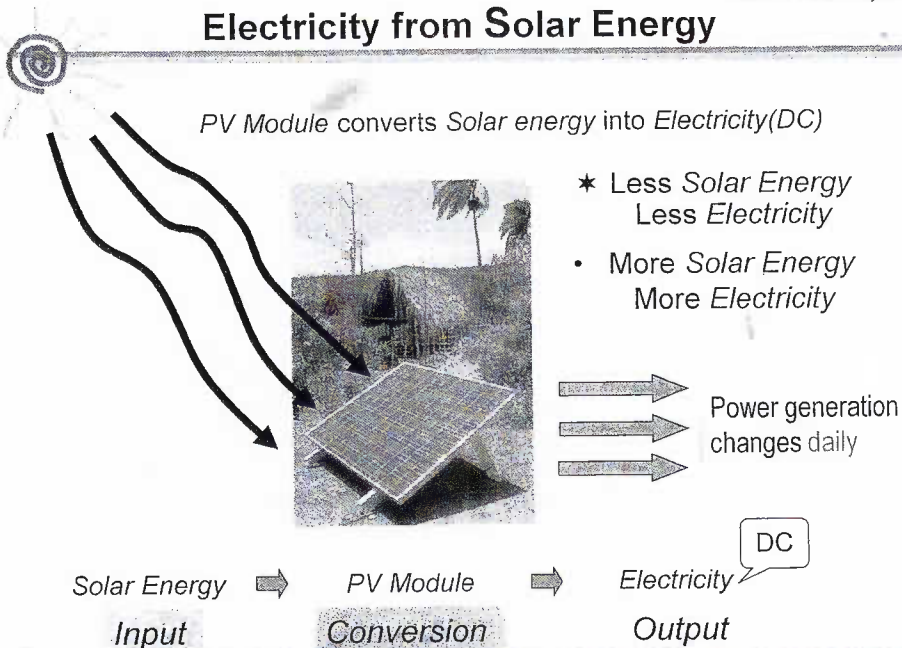
- refers to solar radiation which can be converted into useful energy either in the form of thermal or electrical energy



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Basics of Solar PV System

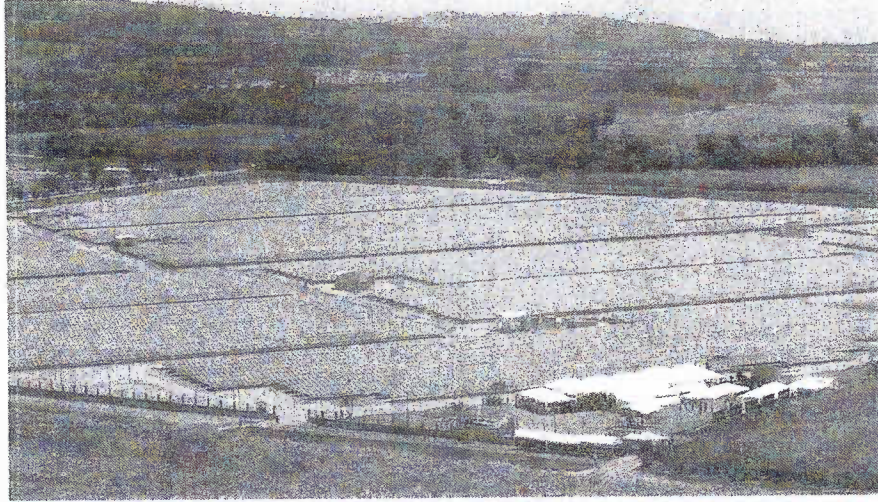
Electricity from Solar Energy



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→ 100 kw - household. Net metering.
IRR. ERC. P5.64

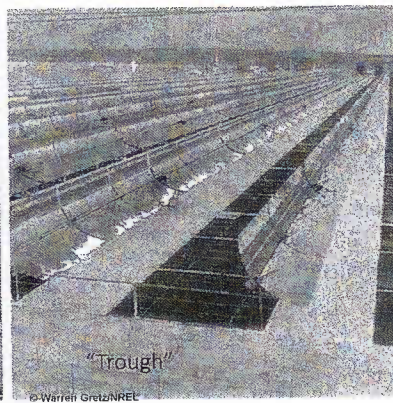
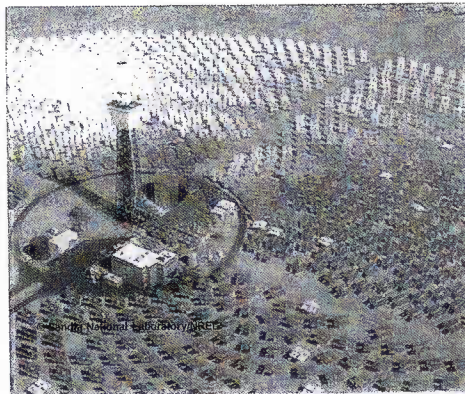
22-MWp San Carlos Solar Project



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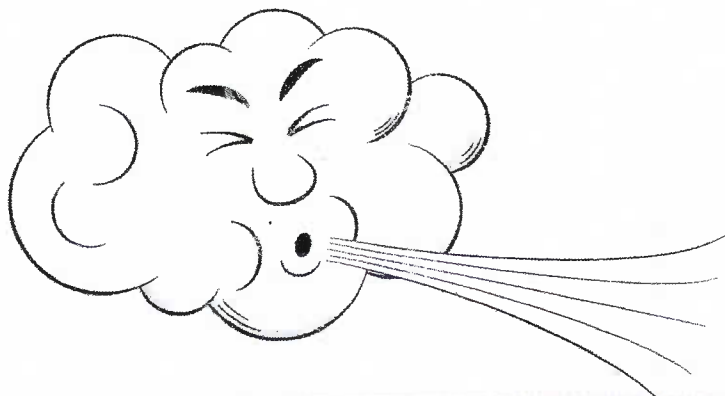
Solar Thermal Power Plant

-uses solar radiation to boil liquid of low-saturation temperature to run turbines and in turn produce electricity.



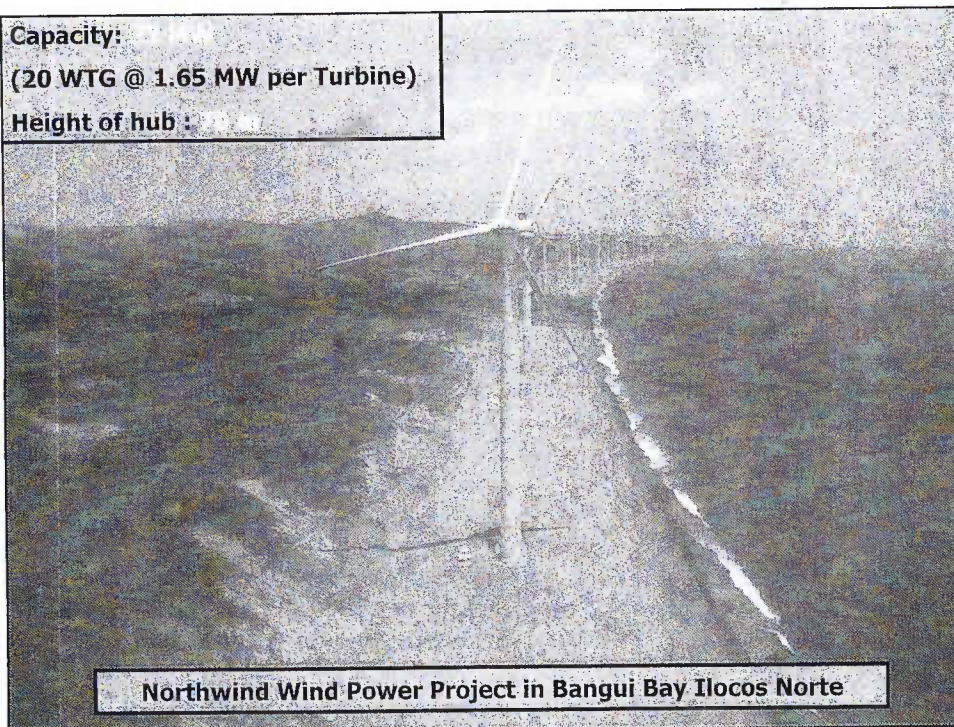
Wind Energy

It refers to the kinetic energy (i.e., motion energy) of the wind that can be converted into rotary motion in turn produces mechanical or electrical energy



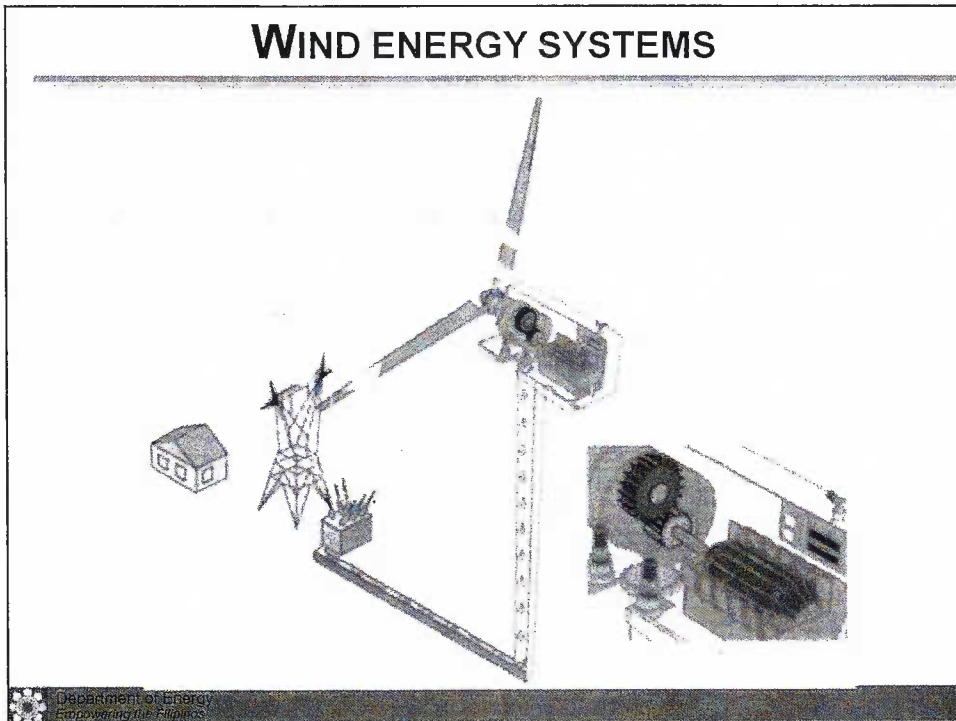
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Capacity:
(20 WTG @ 1.65 MW per Turbine)
Height of hub : 70 m



Northwind Wind Power Project in Bangui Bay Ilocos Norte

WIND ENERGY SYSTEMS



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Capacity:
(27 WTG @ 2 MW/turbine)
Height of hub :



Pililla Wind Farm in Pililla, Rizal