

SOLAR ENERGY TECHNOLOGY

ETC ENERGY

Applications and Functionality of PV Solar Systems

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Training Course on Renewable Energy Part II - MEMR CASINDO

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Applications of PV Systems

Solar Calculators

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Other Applications of PV Systems

- Boats and
- Hybrid cars

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- PV systems connected to the grid

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Grid Connected PV

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Solar Home Systems

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Solar Lanterns

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Portable Solar System

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Mabuasehube Game Camp 24x 285 Wp

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Game Camp

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Battery Charging System in Lorolwana

- 10x 60Wp Shell Modules
- 10x 50Wp Kaneka Modules

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Inside the Battery Charging System

- 84x Batteries

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Central PV System for 4 Houses 4x 300Wp



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Hybrid PV with generator
Solar = 3.6kWp – Generator = 42kW



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Suntainer

- Autonomous PV or PV - diesel hybrid operation
- 6 kW Array => 24 kWh/day
- 20 x ASE 300 Solar Panels
- 48 V DC
- 20 foot container



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Inside the Suntainer



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Transport of the Suntainer



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Transport of the Suntainer



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Installation of the Suntainer



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Engine with 20kVA generator

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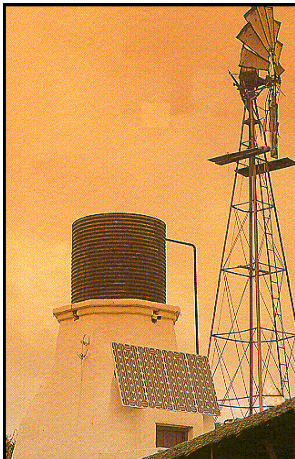
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Engine with 20kVA generator

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PV - Wind Hybrid
Water Pumping

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Pumping System at the
Khama Rhino Sanctuary in Botswana



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Applications of PV for Game Parks

- Staff houses electrification
- Camp sites
- Ablution block lighting
- Communication
- Educational videos
- Entertainment
- Refrigeration
- Electric Fencing
- Pumps

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Benefits of Solar Energy

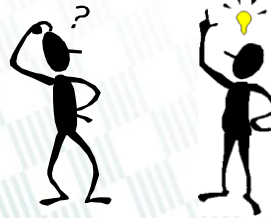
- It is clean
- It does not make noise
- Has a large life-time
- It is a mature technology
- It is convenient to use
- Green energy

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Benefits of Solar Energy (cont.)

- Independent energy source
- The sun is for free
- Little maintenance requirement
- It is modular and can be expanded

QUESTIONS ?



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