

## *Rural School Site with Off-grid Solar Power Installation*



*Computer learning & Web access made possible*



*Roof-mounted Solar Panels*

*Controller Box With Inverter*



*WLAN*

## Notes:

- **3 x Classrooms Load:  $60W_{DC}$  &  $110W_{AC}$**
- **Resource room Load:  $60W_{DC}$  &  $900W_{AC}$**
- **Staff room Load:  $30W_{DC}$  &  $55W_{AC}$**
- **Washroom Load:  $15W_{DC}$**
- **Location has 10 hrs of daylight /day**
- **Energy demand of School is  $8.6kW$  / day**

## Calculations:

- **Load cycle demand:  $10.3kW$  /operating day**
- **Size of Solar Panel:  $\approx 1500Wp$**

## Benefits:

- **Better learning environment**
  - *Brighter, more comfortable classrooms motivates learning*
- **Computer learning**
  - *Enables learning of new skills to be better prepared for the future*
- **Web access resource**
  - *Easier access to a larger and broader knowledge base*
- **Cost recovery in approx. 5 yrs**
  - *System will continue to produce energy thereafter*
- **Energy security**
  - *Self-sufficient energy availability, reliable system without interruptions*
- **Environmentally friendly**
  - *No pollution of the air, a system using an infinite resource*
  - *Educating younger generation to love, protect, cherish and secure Gaia*