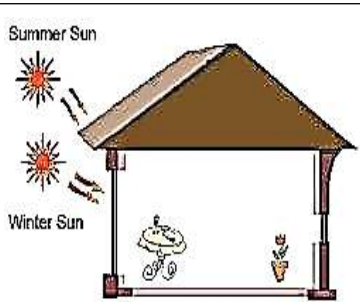
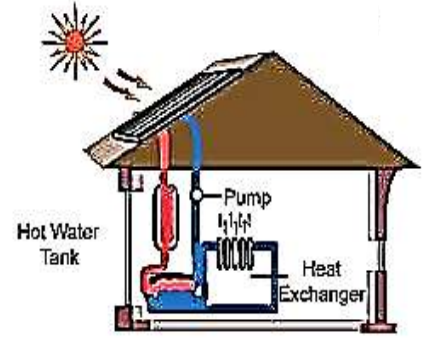


AIM: Renewable Energy Resource #1 – SOLAR ENERGY

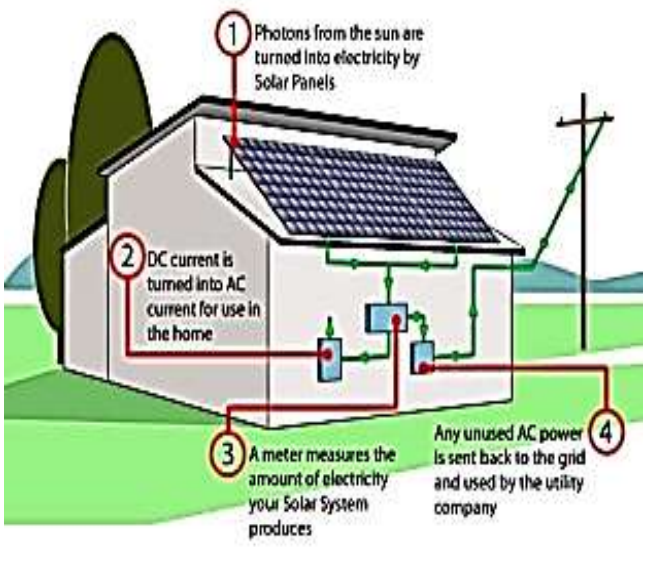
(renewable energy is also referred to as “alternative energy” - energy sources that do not burn fossil fuels)

1. PASSIVE SOLAR HEATING	2. ACTIVE SOLAR HEATING
<ul style="list-style-type: none"> - absorbs and stores heat from Sun inside the structure (works just like a greenhouse) - big south-facing windows (in Northern Hemisphere) - construction materials used to maximize heat storage and release - adobe (mud) and stone (usually darker-colored) with high heat capacity 	<p>solar energy collector in coordination with mechanical pumps/fans</p> <p>water is pumped behind solar panels to be warmed and then circulated throughout house to radiate the heat into the air</p> 

3. PHOTOVOLTAIC SYSTEM

solar panels (solar cells or PV cells) convert sunlight directly into electricity

unused electrical power that is generated is put back into the grid – credits to electric bill given to homeowner for later use



- Pros of Solar Power:**
- 1 moderate/high net energy yield (latitude dependent)
 - 2 no CO₂ emissions
 - 3 relatively low environmental impact*
 - 4 quick installation
- Cons of Solar Power:**
- 1 solar cells' lower efficiency (15-25%)
 - 2 daylight hours / weather dependent
 - 3 backup storage required
 - 4 land use for solar farms (affecting wildlife)
 - land clearing destroying habitats
 - air temperature above solar farms much hotter