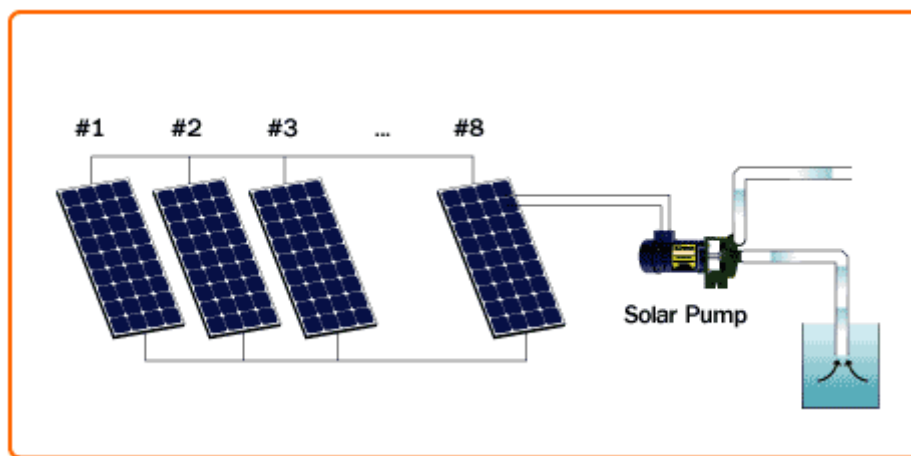


Solar Energy For Agriculture And Solar Pumps

If you need to supply water beyond the reach of power lines, then solar power can solve the problem PV power provide a welcome alternative to fuel burning engines, windmills and hand pumps. They produce best during sunny weather when the need for water is greatest solar water pumps are specially designed to utilize DC electric power from PV panels. A surface pump is one that is mounted at ground level. A submersible pump is one that is lowered into the water. Most deepwell use submersible pumps.

A pump controller(current booster) is an electronic device used with most solar pumps it acts like an automatic transmission helping the pump to start and not to stop in weak sunlight. A solar tracker may be used to tilt the PV array as the sun moves across the sky. This increases daily energy gain by as much as 55 percent.



Storage is important three to ten days storage may be required, depending on climate and water usage. Most systems use water storage rather than batteries for simplicity and economic(home,village,facilities) there are no limits to how large solar pumps can be built. But they tend to be most competitive in small installations where combustion engines are least economical. The smallest solar pumps require less than 150 watts and can lift water from depths exceeding 65 meters at 5.7 liters per minute (1.5 gallons) in a 10-hour sunny day it can lift 3400 liters that enough to supply several families or 30 head of cattle or 40 fruit trees.

What is it used for

- Live stock watering
- Irrigation
- Domestic water