

RENEWABLE ENERGY TECHNOLOGIES DIVISION

AGRICULTURE AND IRRIGATION

Strengthening the Key pillar of developing economies



Agriculture is one of the key pillars of the economies across the world and is essential to ensure food security for the large population in the developing world, especially in Asia, Africa and South America. Agriculture productivity is largely dependent on groundwater irrigation.

Access to safe and potable drinking water is also a challenge for many of the rural population in the developing countries, especially in African continent.

Solar powered water Pumping systems can provide water for Irrigation and drinking through innovative technologies, without the need for grid electricity, using Natural Renewable energy.

PROBLEM STATEMENT

Unavailability of grid electricity connection in farm areas in developing countries, leading to poor irrigation and crop yields.

Poor and erratic grid power leading to dependency on diesel run generators for irrigation.

High running cost of diesel gensets leads to high irrigation cost and increase in farm-gate cost.

Unhygienic ground water with no purification Systems, leading to water borne diseases.

Poor water supply ,Purification and storage systems for Potable water storage.

SOLUTION

Bajaj Processpack Limited -renewable energy technologies division , has designed and developed borewell Pumping systems that utilise solar power to energise and operate to extract groundwater that can be then used for irrigation or drinking water purposes.

With an experience of over 36+ years in manufacturing innovative Farms-To-Table Technologies and Machinery, we derive our philosophy on designing technologies that enable mechnisation of Farm-2-Fork value chain and adding value to the Farm produce, designed for small -medium farmers and agri-entrepreneurs in the developing countries, utilising innovative technologies and renewable energy sources.

PROJECT OFFERED

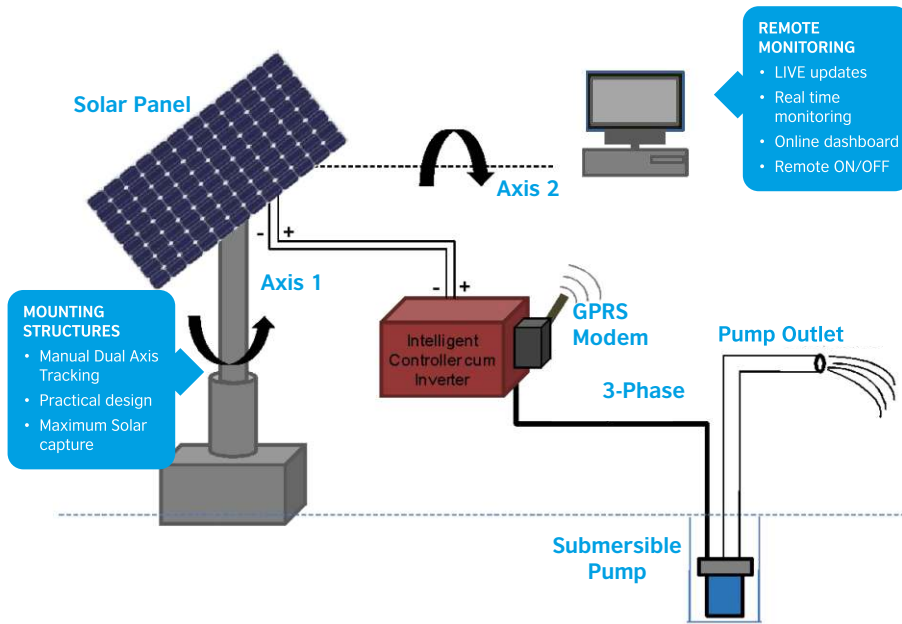
Solar Powered water Pumping and Irrigation Systems.

Solar Powered water Pumping, Storage, Purification and supply systems.

Solar / Biomass Powered cold storage

Solar powered Milk Chilling and Stoarge

Solar-Powered Water Pump – Schematic



Solar irrigation pumps are better than diesel pumps

Solar Advantage

- A tight matching of peak irrigation demand and solar power supply during day
- A variable pumping load application allowing large variations in sunlight

Cost

- No fuel costs vs \$1.4/liter long term price of diesel
- Savings on high cost of providing last mile electricity connection to villagers
- Savings on current diesel and agriculture power subsidy

Power

- Improved management of peak power demand between urban and rural areas
- Zero distribution losses due to decentralized power generation at point of use

Operation & Maintenance

- Long operating life of pumps
- Highly reliable, durable and easy to operate and maintain

Health & Environmental

- Reduction in air pollution due to diesel combustion
- Reduction in greenhouse gas emissions

Societal

- Generation of local employment in villages
- Prevention of mass migration of villagers to urban areas
- Enabling economic development of rural farmer

Projects Executed - A brief overview



1hp -drinking water Supply project



Rural drinking water Supply and purification Project



2Hp Solar Irrigation Project (Bettiah/Kushinagar)



7.5 Hp Solar Irrigation Project (Spiti Valley)



3Hp Soalr Irrigation projects (amroha)



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36+
YEARS OF
EXPERIENCE
SINCE 1988