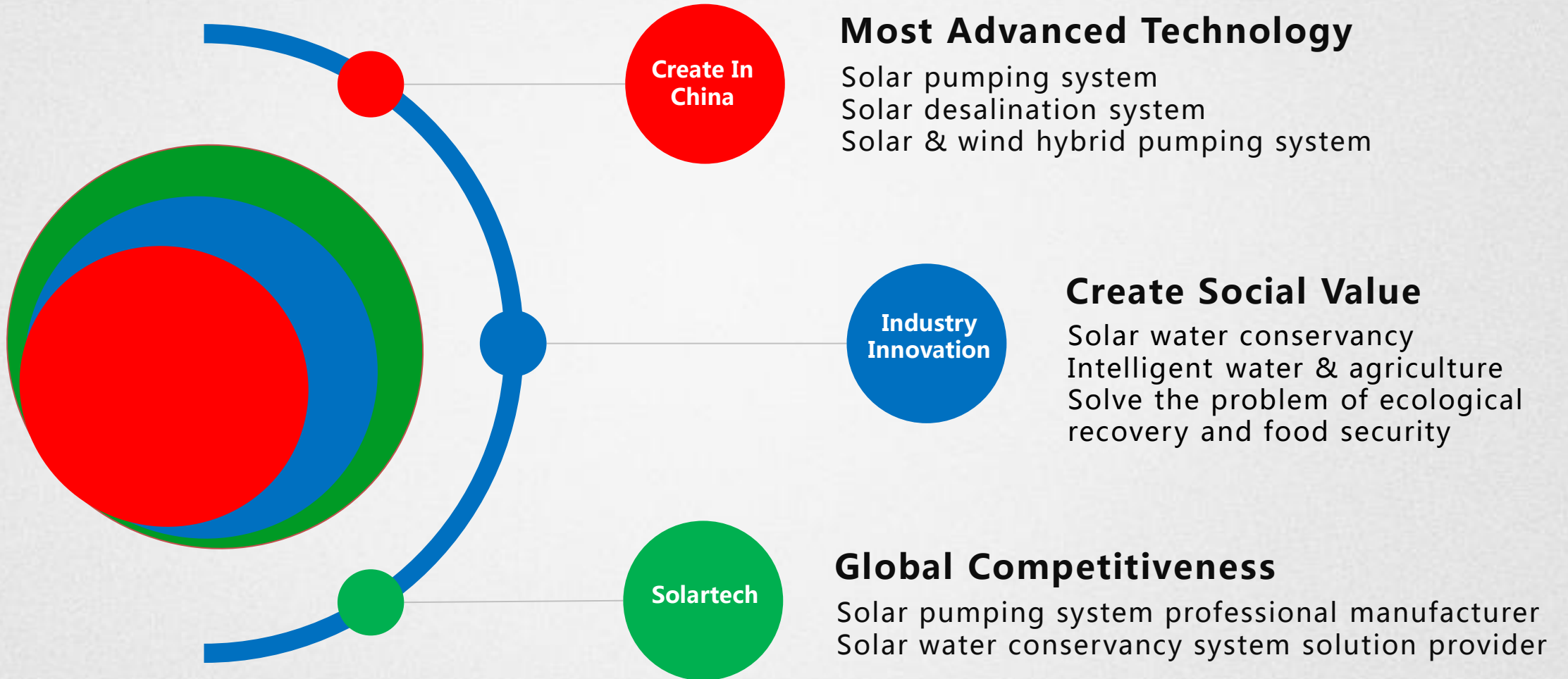


Aner[®]



Aner Industry Group Limited

Core Value



The Challenges



Water Scarcity



Nowadays **700 million** people face a water shortage crisis. By 2025, **1.8 billion** people will be living in countries or regions where water is scarce.

Food Shortage



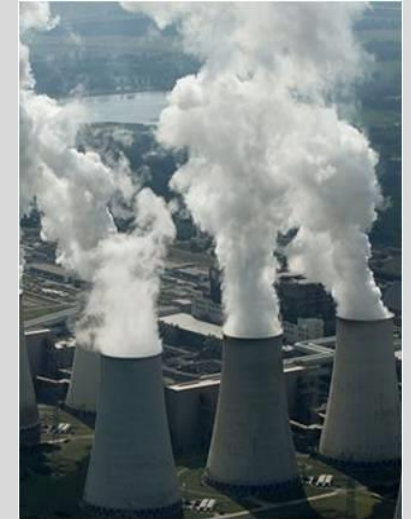
By 2050, there will be at least **50%** more world's food need to be produced to feed the population of **9 billion** people.

Desertification



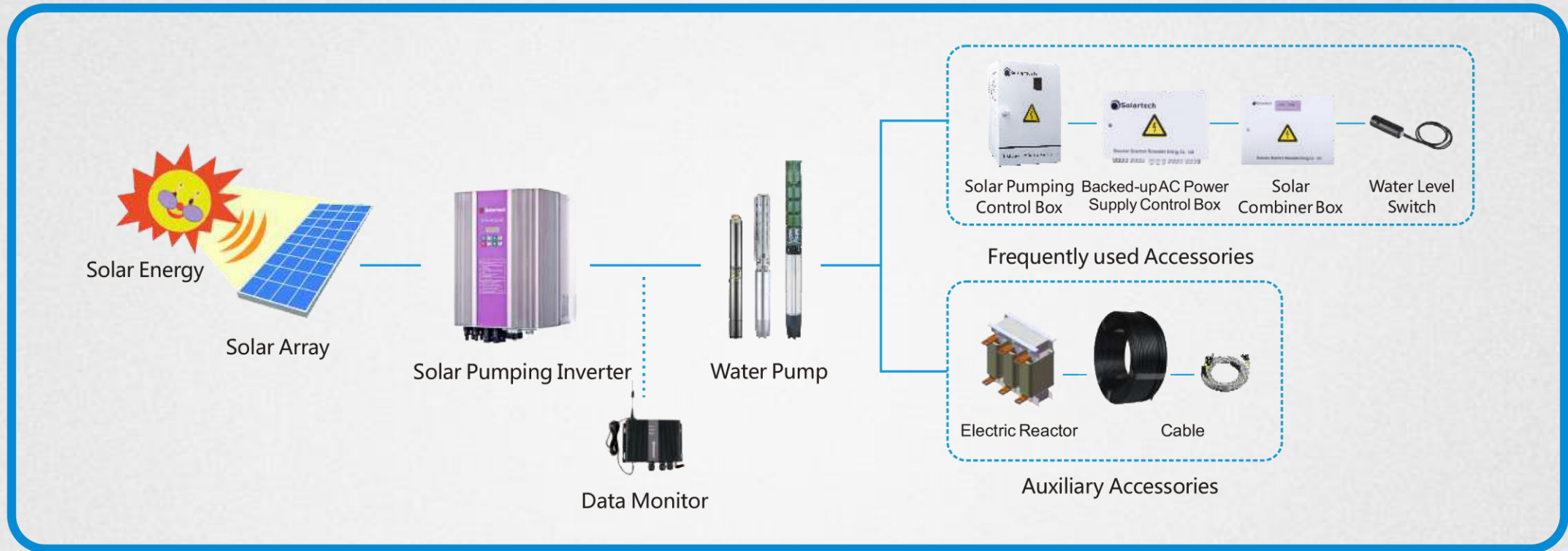
Only 18% of the world's total arable land is irrigated. Dry lands cover roughly 40% of the earth's land surface.

Energy Security



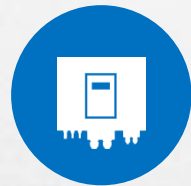
Global coal resources can be mined for **100** years and natural gas for **50 to 60** years. The stock of oil is less than **200** billion tons

The Solution **Solar Pumping System**



Solar Array

Solar PV array turning irradiation from sunlight into electrical energy (DC).



Solar Pumping Inverter

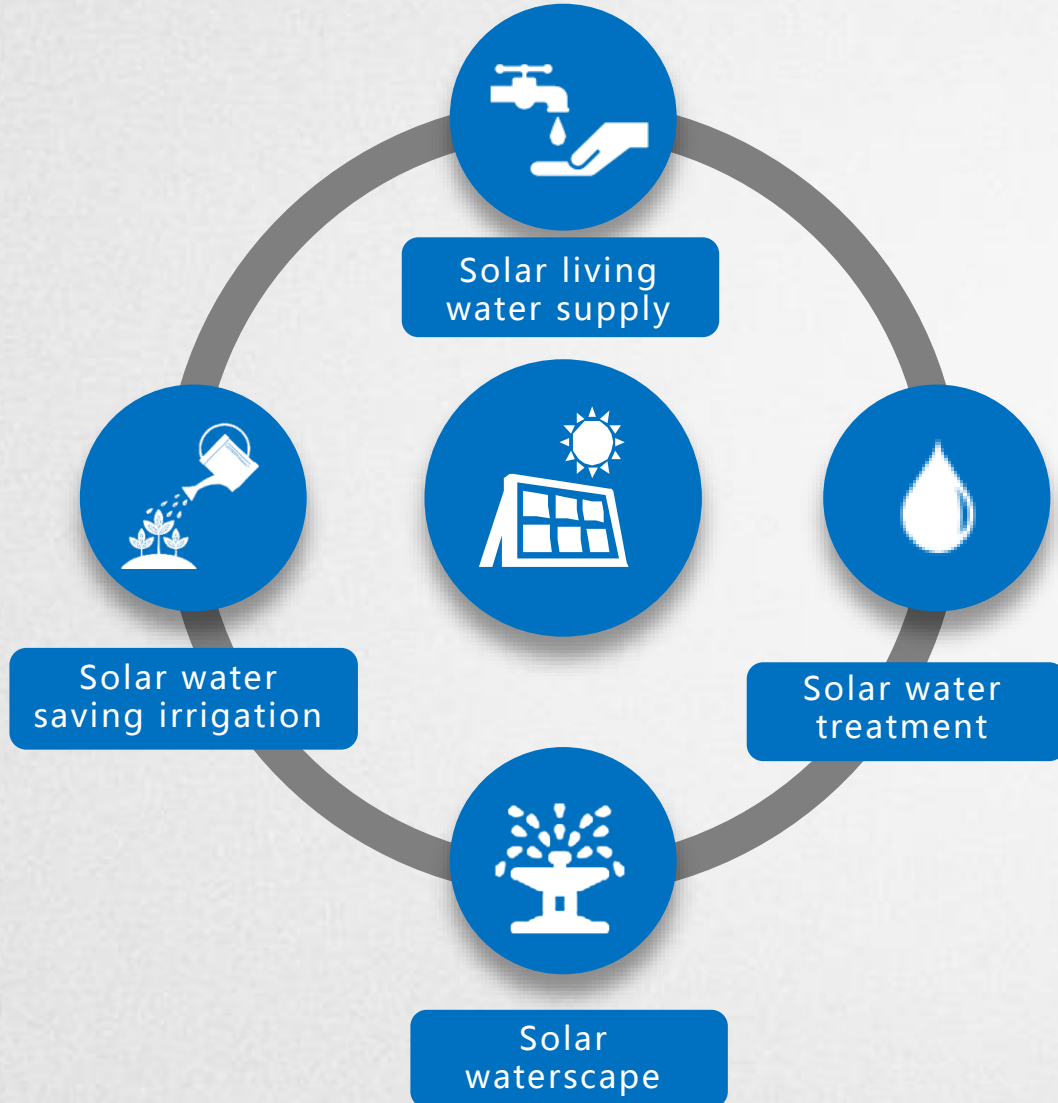
Controlling and regulating pumping operation and voltage conversion from dc to AC.



Water Pump

Pump draws water from well or rivers and lakes to tank/ponds or irrigation systems

The Solution Solar Water Conservancy Solution



Desert Control



Agriculture Irrigation



Pasture Irrigation



Domestic Water Supply



Village Water Supply



Livestock Breeding



Seawater Desalination



Brackish Water Desalination



Clean Water Treatment



Fountain



Water Fall

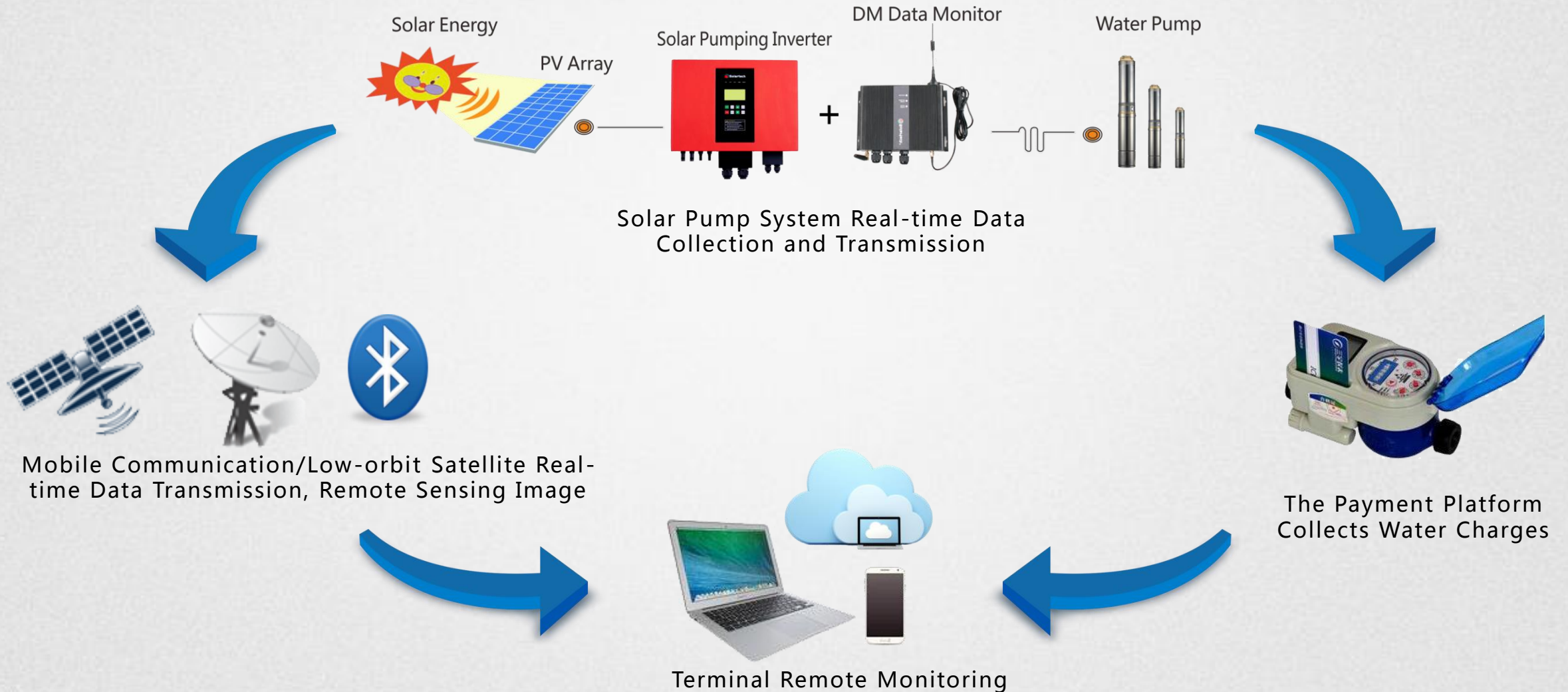


Water Wheel



The Solution **Intelligent Water**

To solve the three problems of high investment for installing power grid , water waste and intelligent control



Demonstration Base



Solartech Solar Pumping System Research Demonstration Base



Solar Pumping System
Operational Testing & Data Collection



Solar Pump
Operational Testing &
Data Collection



Solar Fountain
Operational Testing &
Data Collection



Solar Seawater/Brackish
Water Desalination System
Operational Testing &
Data Collection

Solar & Wind Hybrid Pumping System



Solar & Wind Hybrid
Pumping System Operational
Testing & Data Collection

Demonstration Base



Solar Grid-Connected & Energy Storage System Research Demonstration Base



Solar Carport Operational Testing & Data Collection



Solar Tree Operational Testing & Data Collection

Microgrid Demonstration Base



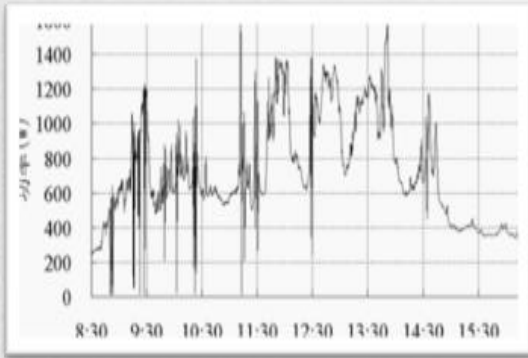
Mono. Poly. and Thin-film Solar Array
Operational Testing & Data Collection



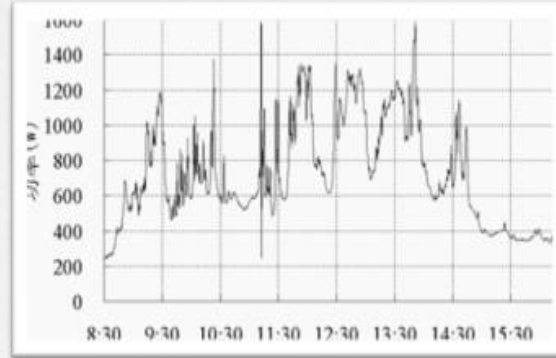
Master Control Room



System operational situation comparison on cloudy days

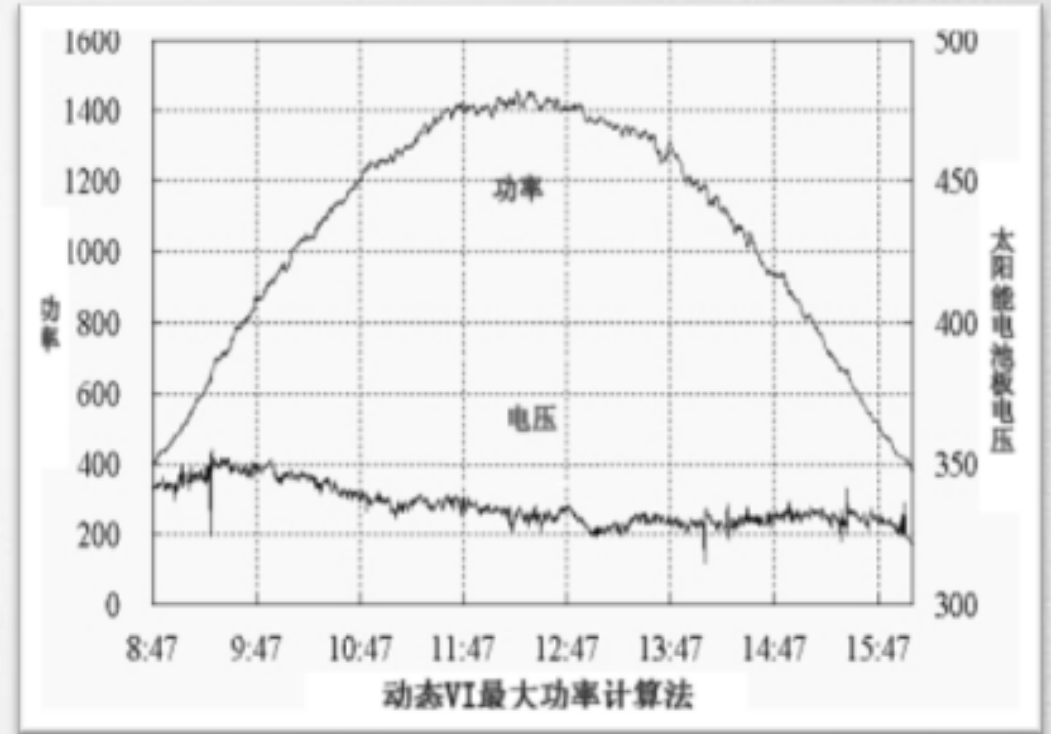


PAO MPPT Curve



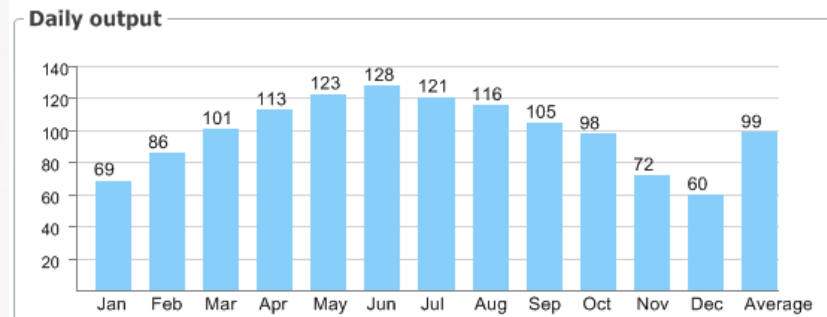
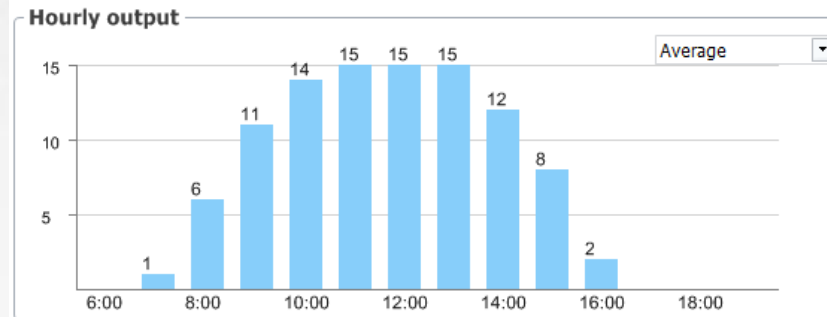
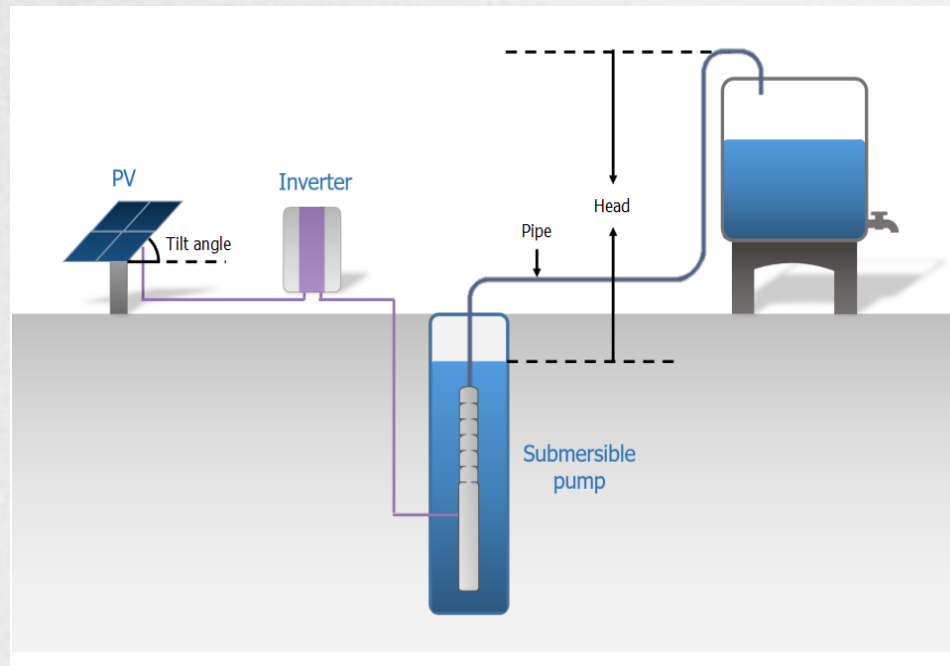
Solartech Patent
Dynamic VI MPPT Curve

Dynamic VI MPPT curve on sunny days



Date	Weather	PAO Interruption	Dynamic VI Interruption
2004.12.03	Cloudy	24	1

System Technology **Optimized System Selection**

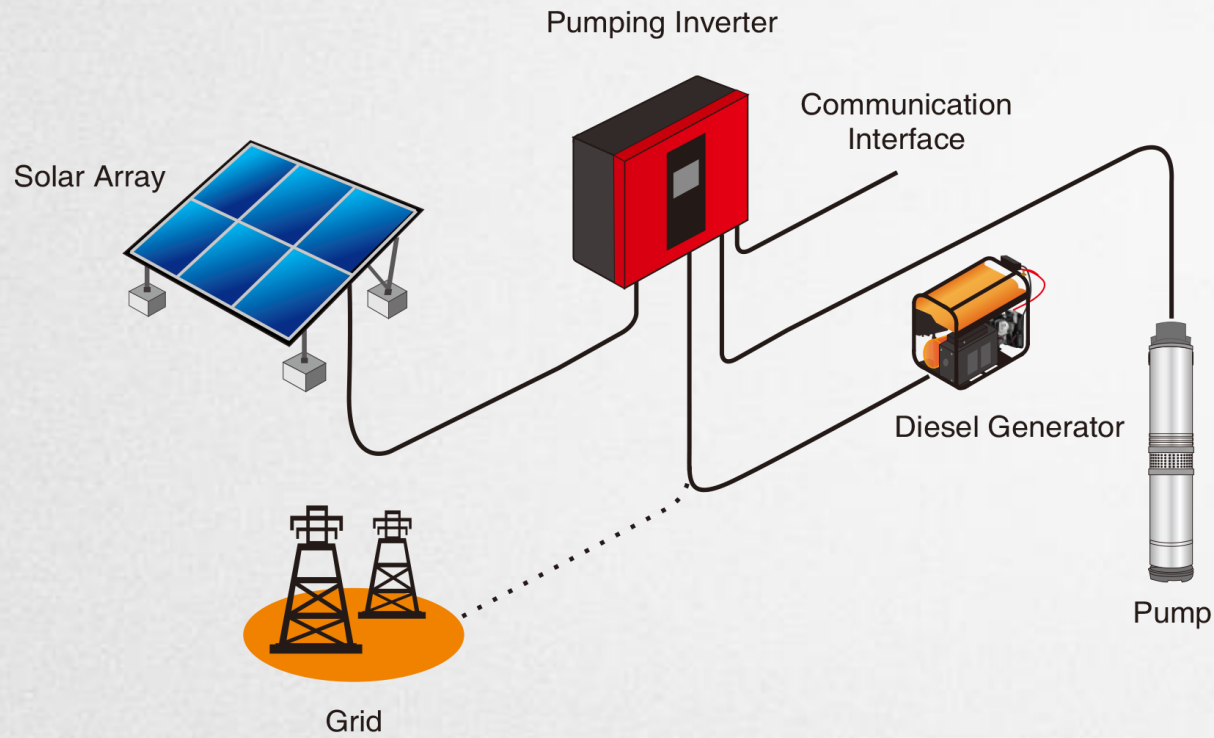


The optimal solar pump system design can be provided by SP Manager

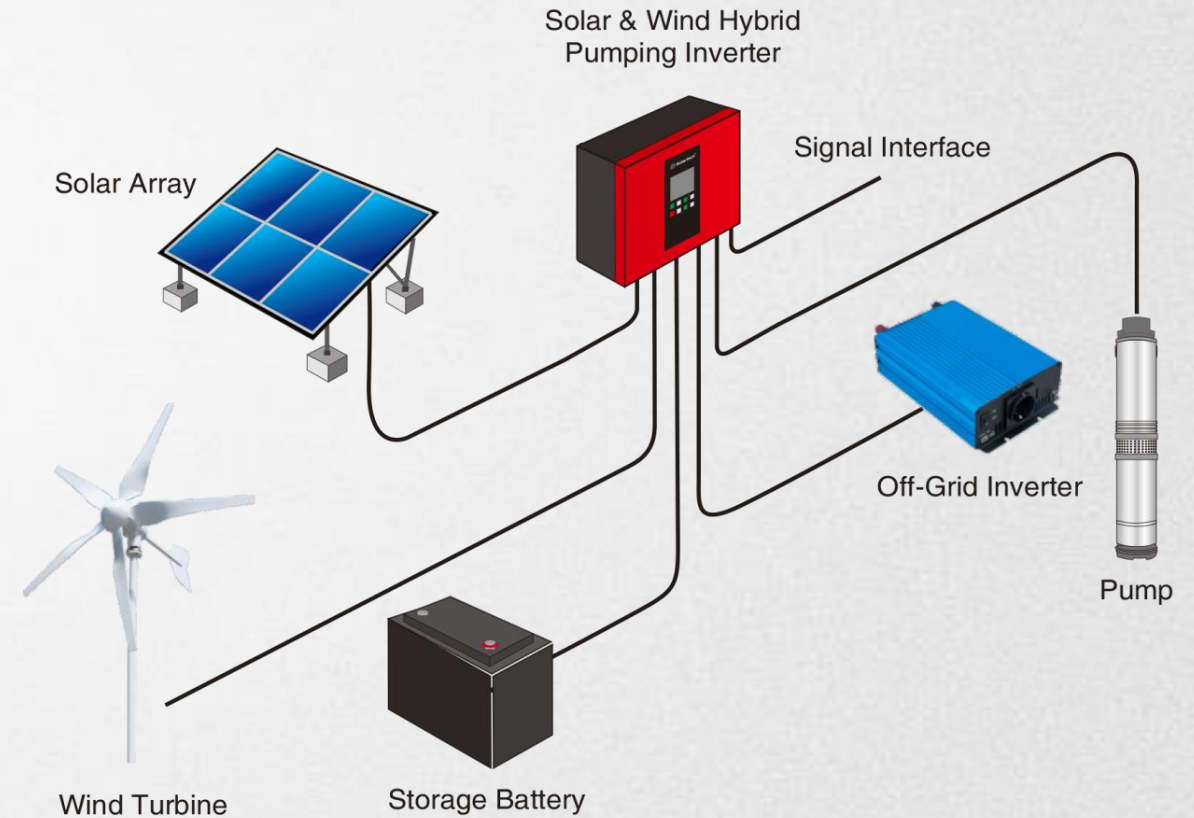
- Full global radiation illumination data
- Provide local radiation illumination map
- Provide the detailed solar pump system design report
- Provide the accurate tilt angle of solar panel
- Provide average daily/hourly water flow figure



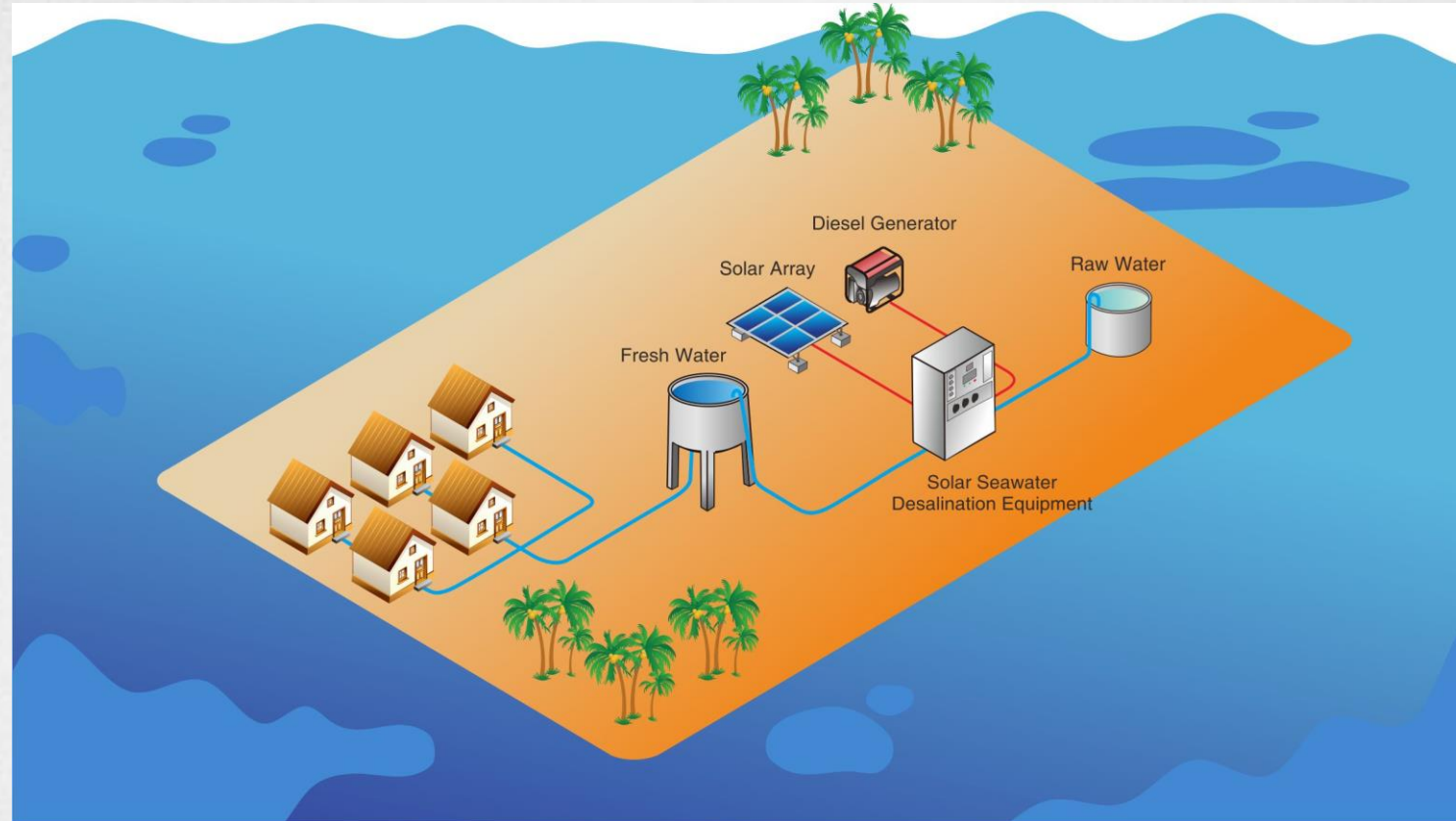
Solar & Diesel Generator/Grid Pumping System



Solar & Wind Hybrid Pumping System



System Technology Solar Seawater (Brackish Water) Desalination



Integrate solar pumping technology and reverse osmosis water purification technology, no batteries, fully powered by solar energy.

- Solar energy
- Support AC power backed-up supply
- Full automatic operation
- Full digital control
- Support data storage
- IP54, support outdoor installation
- With anti-corrosion, anti-typhoon, anti-lightning design

System Technology **Floating Solar Pumping System**



Features & Advantages

- No occupied of land
- No aggressive to farmland
- Environmental friendly
- Strong weather resistance
- High system efficiency
- Convenient solar module installation
- Easy maintenance
- Save labour cost and investment

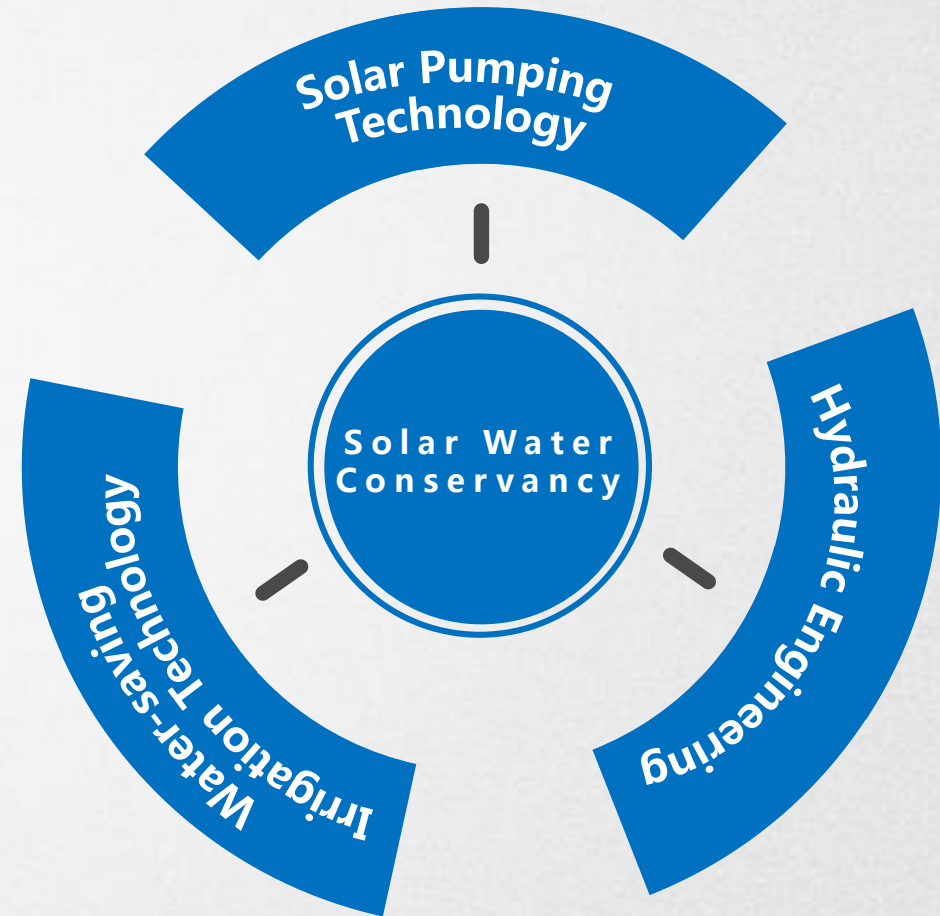
Solar Water Conservancy



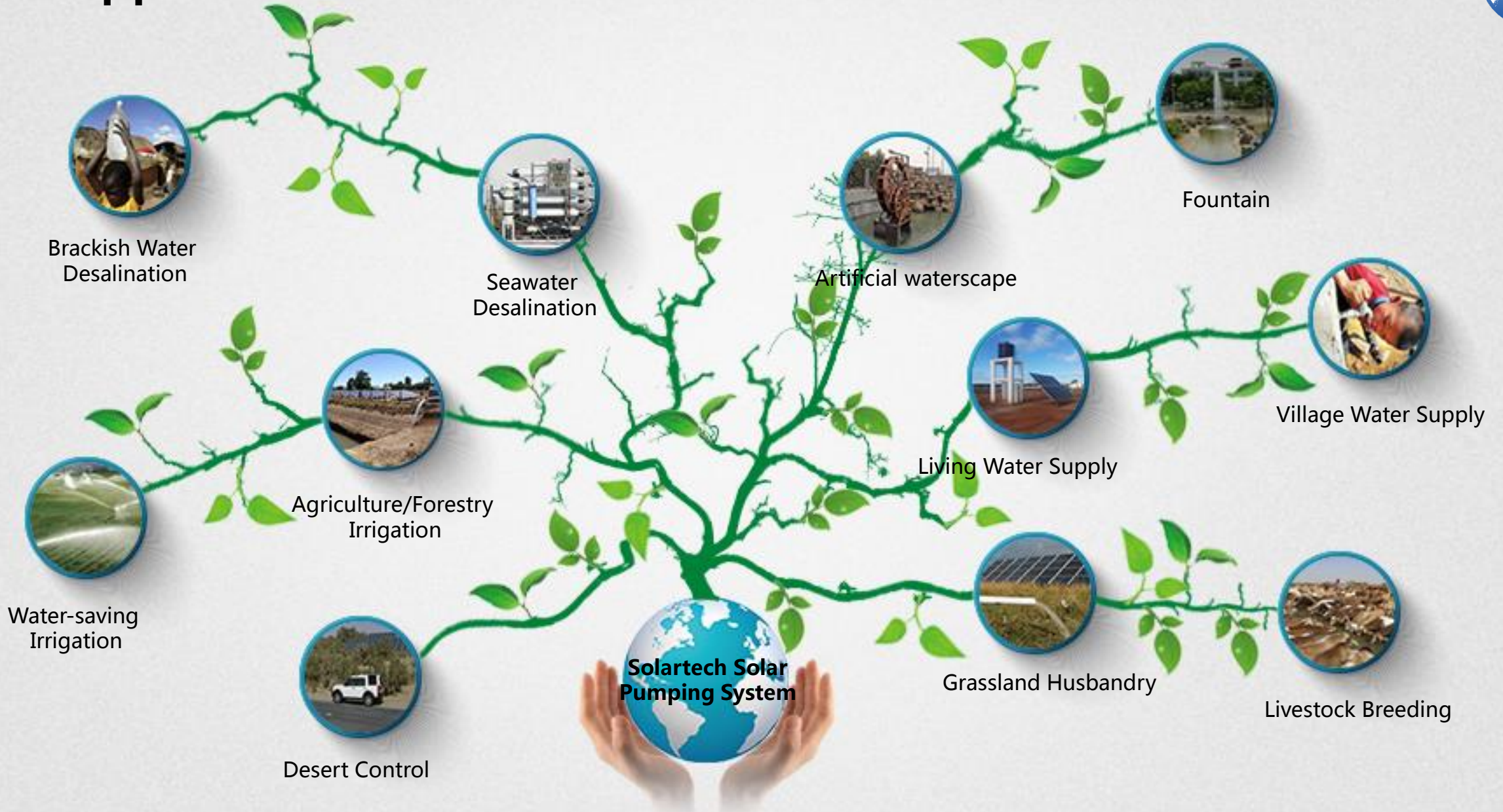
Industry Innovation

Through the organic integration of **solar pumping technology**, **hydraulic engineering** and **water-saving irrigation technology**, based on the industrial technology and market demand of matching and requirements, to solve the ecological restoration, food production, animal husbandry, grassland restoration problem.

Solar water conservancy can not only provide a comprehensive solution for agriculture, forestry and animal husbandry production, ecological environment improvement and desert governance, but also have of great significance in promoting the healthy development of photovoltaic industry.



The Application



Desert Control



World's First Desert Highway Drip Irrigation Sand Break, in Xinjiang, China (2001)



Tree-lined (2010)



Project completion (2001)



Green appeared (2002)



Land formation (2003)



Tree growth (2004)

Desert Control



Niu Yuqin Desert Control Demonstration in Mu Us Desert, Shannxi, China (2009)



Heavy sandstorm (2009)



Solar pump system installed (2009)



Water-saving irrigation system installed (2011)



Alfalfa is growing well (2012)



Corn will soon be harvested (2012)

Grassland Husbandry



Solar water conservancy for grassland irrigation and improving in Xinjiang (2015)



Solar array



Flooding irrigation system



Spray irrigation system

Grassland irrigation in Qinghai (2011)



Irrigation



Grass harvest

Grassland Husbandry



Husbandry irrigation and livestock breeding project in Tibet (2010)



Solar pump system



Spray irrigation system



Livestock breeding system

Husbandry irrigation project in Inner Mongolia (2010)



Solar pump system



Solar pumping inverter



Water pipe installed

Livestock Breeding



Solar pump system project for livestock breeding in Botswana (2014)



Livestock drinking



Reservoir installed



Water pipe installed



Solar pumping inverter



Solar array

Livestock Breeding



Solar pump system project for livestock breeding in Brazil (2015)



Solar array



Solar pumping inverter



Reservoir



Water flow injecting
into reservoir



Flocks and herds

Agriculture/Forestry Irrigation



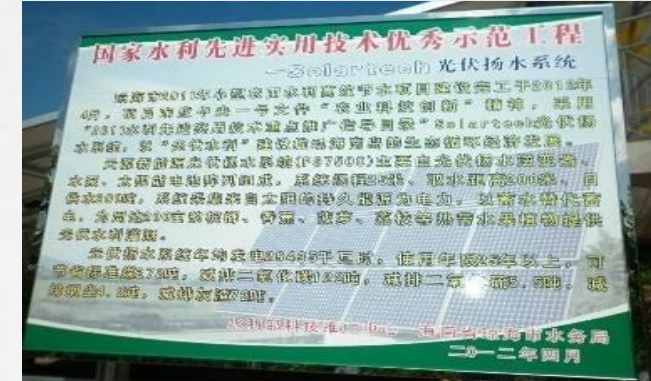
National Water Conservancy Advanced Practical Technology Excellent Demonstration Project, in Hainan (2012)



Solar pump system



Water flow



Project introduction

Solar Agriculture Irrigation System Project in Yunan, China(2013)



Solar Array



Solar Pumping Inverter



Water Tank

Agriculture/Forestry Irrigation



Participated in the development planning and case demonstration project of the Bangladesh Solar Agricultural Irrigation (2008 - 2012)



Met with Bangladesh Agriculture Minister



Joint Work Conference



Set up a Solar Agriculture Irrigation Development plan



Solar pumping inverter installed



Water flow



Rice waiting for harvesting

Agriculture/Forestry Irrigation



Solar pump system for agriculture water-saving project in Eritrea (2013)



Project installation environment



Solar array



Solar pumping inverter



Heavy water flow



The ambassador came to visit and guide the work



Project introduction

Living Water Supply



Solar Water Security system in Inner Mongolia, China (2011)



Solar Array



Soalr Pumping Inverter



Supply Water for the Village

Solar Living Water Project for Temple in Changdu, Tibet (2014)



Solar Array and Control Room



Solar Pumping Inverter



Water Tower

Living Water Supply



Africa's First Solar Water Security Project in Uganda (2009)



Solar Array



Solar Pumping Inverter



Water Pump

Solar Water Security Project in Ethiopia, Funded by World Bank (2013)



Sola array



Water faucet installed



The villagers get water

Living Water Supply



Solar Water Security Project in Pakistan (2014)



Solar Array



Water Well



Water Flow

Solar pumping system for living water supply project in Philippines (2014)



Solar array installed above the water tower



Solar pumping inverter



The villagers use water

Living Water Supply



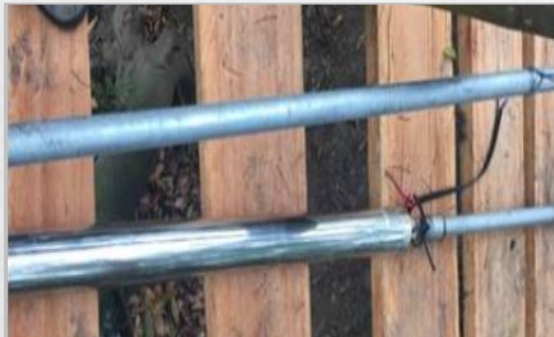
Solar pumping system for living water supply project in Guatemala (2015)



Solar array



Solar pumping inverter



Cable connection



Fixing pump



Project completion

Seawater Desalination



Solar seawater desalination system project in Xisha (2009)



Project participants group photo



Install solar array



Master control equipments



Water pipe



Project completion

Artificial Waterscape



Solar water recycling system and fountain system in Tsinghua University Shenzhen Graduate School (2006)



Solar water recycling system



Water fall



Fountain

Solar water wheel system in Zhejiang, China (2011)



Solar array



Water wheel