



COMPANY OVERVIEW

Solar Energy, Drinking Water and Pumping Solutions

*Cost Effective
Quiet & Pollution Free
Low Maintenance
Reliable & Efficient*

Infinity & 21st Solar develops, designs and builds integrated solar and water platforms. 21st Solar has brought its unique solar energy and water applications expertise to farms, communities, defense organizations and disaster relief missions throughout the U.S., Latin America, Africa, Asia and the Middle East.

- Leading global provider of solar energy and water applications with a 30 year track record of successful project development, product development, design and engineering
- Smart pumping, treatment and water management solutions for farms and agribusinesses
- Drinking water solutions for communities with little or no access to clean water
- Fully packaged, portable and transportable systems for defense organizations and disaster relief missions
- Reliable source of power and water where the logistical and economic burden of obtaining diesel is difficult or impossible
- Back-up power supply and continuous operation during daytime power outages
- Patented technology to directly drive large pumps up to 600 horsepower, systems designed in a variety of configurations (off-grid or grid-connected) and the flexibility to incorporate alternate power and water sources (batteries, generators, water storage)
- Strong partnerships with global technology and financial provider's
- Strong relationships and partnerships with the United States Office of the Secretary of Defense, the National Defense University and the United States Combatant Commands (selected as lead integrator for the Joint Capabilities Technology Demonstration, JCTD, for the PEAK project)
- Representation in Latin America, the Caribbean, Puerto Rico, Egypt and India



delivery-advanced communications product for the National Defense University.

Today, we are developing one of the largest solar powered irrigation projects at a private farm in Egypt, building solar powered water filtration projects for communities in Puerto Rico and developing a new, portable solar power-water

Clean Power and Water for Farms



Clean Water and Power for Communities



Packaged and Transportable Solutions for Defense and Disaster Respon



MMP Mobile MaxPure™ (shown on customer trailer).

Above is our fully packaged and easily transportable larger scale solution with multiple water treatment options capable of purifying up to 30,000 gallons (113,500 liters) per day from freshwater and 3,000 gallons (11,350 liters) from seawater; auxiliary AC/DC electricity to provide critical power to electronics and small appliances

- 31 kWh deep cycle gel battery bank
- AC/DC electrical load center
- Ultrafiltration water treatment
- Reverse Osmosis water treatment
- Field level support package
- One year of consumables

MOBILE MAXPURE®

Series 1

The Mobile MaxPure® is a fully integrated, turnkey solar solution designed to pump, filter, purify and desalinate water, as well as provide auxiliary power and communications. The system utilizes proprietary and patented technologies.

Features included:

- ◆ Provisions of up to 30,000* gallons of clean drinking water each day from wells, rivers, lakes and other fresh water sources
- ◆ Desalination system utilizes reverse osmosis (RO) for brackish or seawater desalination/purification up to 4,000* gallons daily
- ◆ 3.3kW folding solar array; supplies up to 3kW peak power AC electricity through its on-board inverter; both AC and DC electricity are available through the Load Center to provide critical power to electronics and appliances
- ◆ A 31 kWh battery bank provides power for night time operation. The batteries are maintenance free GEL type and are rated “non-hazardous” for transportation
- ◆ An environmentally friendly system producing no noise or pollution during operation
- ◆ No gasoline, diesel or external power source required for operation
- ◆ An optional satellite voice and data communication system available
- ◆ If water purification unit is bypassed, unit is able to pump 70,000 – 100,000 gpd for flood dewatering or irrigation

*Assume 5.5 peak-equivalent solar hours for freshwater output and 8 peak-equivalent solar hours for RO output; fewer solar hours will result in decreased operating time and output. An auxiliary generator input is built to extend operation as needed.

Quiet & Pollution Free
Low Maintenance
Reliable & Efficient



Water Power & Communications



Aid & Development



Next is our MobileMAX Clear:

The Mobile MaxClear™ is a solar-powered, stand-alone system designed to pump, filter and purify water. The system is mounted on a custom trailer platform for ease of mobility and utilizes 21st Solar's proprietary technology to provide clean drinking water anywhere in the world.

Mobile MaxClear™ features include:

☑ **Provision of an average 37,000 liters (10,000 gallons) of clean drinking water each day for a fraction of \$0.01 per liter**

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SHEPS™

Solar-Hybrid Expeditionary Power & Purification System

SHEPS™ is a solar hybrid-powered, stand-alone and easy to use water pump, purifier and desalinator, as well as power generator built into rugged, rolling man-portable cases. SHEPS™ features include:

- Portable, built into 2-3 rugged, rolling suitcase sized cases able to be transported in a standard vehicle or as even checked baggage.
- Comprised of one container water purification and one container solar and accessories with an additional, optional container providing solar-hybrid charged battery backup and AC/DC power.
- Water purifier and optional battery bank can be powered from integrated solar and/or external sources such as generator, wind or vehicle power providing field flexibility and reliability.
- Total package comes with four (4) 120w foldable solar arrays and 3 kWh of integrated battery storage providing*:
 - Reverse osmosis water purification producing ~18 gph of drinking water. Operation from solar provides 6 hours of operation, extended operation through solar-hybrid charged battery kit provides 12 hours of run time, and 24 hours of operation is enabled by external power input, or
 - 100 watts of power for 10+ hours; 1500w peak power; 3kW surge enabled, or
 - Combination of water and power output.

- No gasoline, diesel or external power source (other than the sun) required.
- AC/DC power available through use of the extended operation battery case.
- Easy to set up and use; fully operational in under 30 minutes after arrival onsite.
- Environmentally friendly, quiet and pollution-free operation.

*Assumes 5 peak-equivalent solar hours; fewer solar hours will result in decreased operating time and output. Auxiliary generator and vehicle power input is built-in to extend operation as needed.

SHEPS™ Water Purifier

Operating in coastal California



Security, Disaster Preparedness & Emergency Response

