# ForeverPure Power® Solar Oasis with Growbox

complete containerized solar powered desalination system with portable power supply and growbox



Pure Water & Clean Energy











# System Overview

The ForeverPure Power® Solar Oasis System with Growbox is a complete solar powered desalination system with portable power supply and growbox. Each system contains:

- 1. solar panels
- 2. inverter
- 3. batteries
- 4. watermaker
- 5. P750 portable power supply
- 6. Containerized growbox

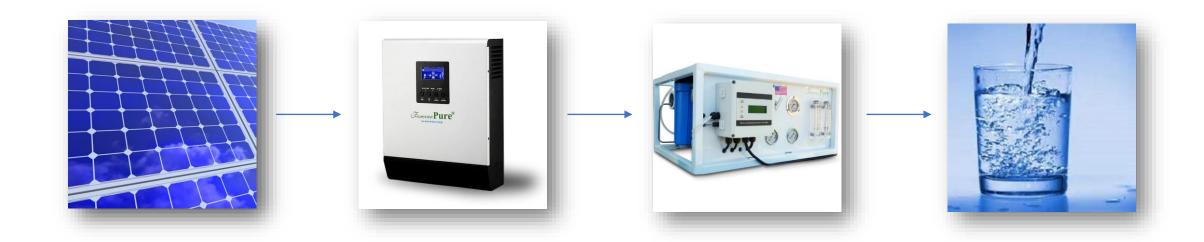
This system is designed to harvest energy from the sun to provide power and water to the containerized growbox. People living in remote and arid environments with little vegetation will be able to grow fresh produce.

# Solar Oasis Overview

Each containerized growbox is powered by our Solar Oasis system. This is an off-grid solar-powered seawater and brackish water desalination system which also provides storage of clean energy.

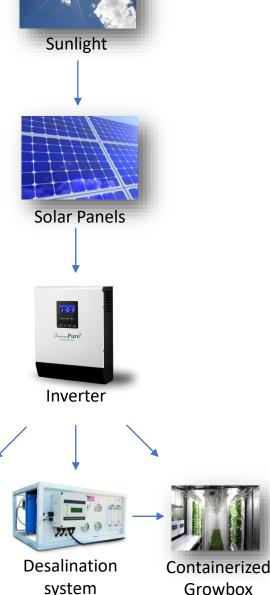
Solar Oasis systems are available in various daily usage capacities which are tailored the user's need.

Each off-grid solar center package includes: charger/controller/inverter, batteries, AC distribution box, solar panels and cables. The solar inverter converts the DC output of the solar panels into AC current.



## How Does The Energy Flow?

- Solar panels installed in a high sun location near a water source harvest UV Energy
- 2. Energy from the sun is converted to AC current by the solar inverter
- 3. AC current is used to power the <u>Seawater Reverse Osmosis Desalination System</u>. A feed water pump delivers water from the ocean or raw water storage tank to the desalination system where it is pre-filtered to reduce the concentration of suspended solids before entering the RO pressure vessel. Potable water is then pumped into the <u>containerized hydroponic grow system</u>.
- 4. AC current is also used to power the lights and electronics inside the containerized growbox.
- 5. Excess energy is stored in <u>renewable batteries</u> that enable the system to run at night or periods of low sunlight. Excess energy is also directed to a <u>P750 portable</u> <u>power unit</u>, which can be carried home to power small appliances at night.





RE Battery and Portable Power Supply

### Batteries

Excess energy from operation of the desalination system is stored in renewable deep cycle lead acid batteries.

- These batteries are designed to be regularly deeply discharged and recharged to get the most out of a renewable energy system.
- The batteries are able to provide an uninterrupted power supply (UPS) to the watermaker to ensure a continuous supply of fresh water to the hydroponics system.
- Battery capacity can be scaled up or down to fit the needs of the particular system.



# P750 Portable Power Supply

- Excess energy created from the operation of the desalination system will also be stored in the Garaye P750 Portable Power Supply.
- This 750Wh, 12 Volt Battery Pack has 3 USB Type A and Type C ports.
- Weighing less than 17lbs, the user can easily carry the power supply to their tent/bungalow/home at night to charge or run small appliances.
- Safe, portable, stable
- High capacity lithium technology
- Operating temperature: -10 ~ 50°C





Desalination System
Overview

The system comes with ForeverPure's compact Seawater Reverse Osmosis Desalination sytem.

- Comes in 200 GPD, 500 GPD, and 1,000 GPD depending on the user's need.
- Runs off solar power
- Provides potable water for use in the containerized hydroponics system

## Desalination System Operation

AC current is used to power the connected Seawater Reverse Osmosis Desalination System. A feed water pump delivers water from the ocean or raw water storage tank to the desalination system where it is pre-filtered to reduce the concentration of suspended solids before entering the RO pressure vessel.

#### **Features:**

- Produces safe drinking water directly from the sea
- The Pre-Filtration System removes sediment and particles from feed water
- High Pressure Corrosion Resistant Membrane Housing houses the reverse osmosis membranes that turn the seawater or brackish water into fully potable water safe for human consumption
- Corrosion resistant frame stands up to severe environments
- 316 Stainless Steel High Pressure Pump
- 316L Stainless Steel High Pressure Piping
- User Friendly Operation and Installation







#### Containerized Growbox

Potable water produced by the desalination system is supplied to an insulated, climate-controlled and fully customizable shipping container/growbox. The growbox is outfitted with the growing equipment and climate control technology needed for high-volume, consistent food harvests.

#### **Features:**

- Containers are stackable and mobile a high volume of produce can be grown with minimal available space
- Food can be grown in any environment or climate as long as the system is installed near a water source
- The containers feature a utility area with all the pumps, tanks and environmental equipment needed
- Each level growing rack systems can contain an appropriate number of crop-specific LED fixtures (powered by solar) and a fully equipped irrigation system (supplied with desalinated water)

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