ROCKERHILL

2025

Solar RO
Off-Grid Water Solution



01

The Water Crisis Challenge

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Diesel Dependency

Diesel accounts for 40% of OPEX, with volatile prices and high transport costs. It's unreliable and expensive.

Maintenance Complexity

Traditional systems require on- site engineers for maintenance, which is costly and impractical in remote locations.

Infrastructure Delays

Traditional water infrastructure takes 6- 12 months to build, with complex terrain in remote areas increasing costs and time.

Our Breakthrough

Solar RO offers solar autonomy, containerized deployment, and remote IoT control to solve these challenges.



02

Core Technology

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Power Hub

Solar PV array with smart storage ensures 99.9% uptime by switching between solar, battery, and grid power.

Treatment Core

Military- grade RO membranes process brackish and seawater, removing impurities for safe drinking water.

AI Brain

Cloud monitoring tracks real- time TDS, energy, and pressure data for efficient remote management.

Key Features

Energy resilience with auto- switching power modes and scalable output from 1- 1,000 m^3/day to meet various needs.

03

Competitive Advantage

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Deployment Speed

Solar RO can be deployed in under 72 hours, compared to 6- 12 months for traditional desalination plants.

Water Cost

Solar RO's water cost is $0.8-1.2/$m^3$, significantly lower than traditional plants' $2.5-4/$m^3$.

Carbon Footprint

Solar RO has zero carbon footprint, unlike traditional plants that produce 0.8kg CO_2/m^3.

O&M Labor

Solar RO is unmanned, reducing labor costs compared to traditional plants that require dedicated crews.

Certifications

Solar RO is certified for IP68 weatherproofing, NEMA 4X corrosion resistance, and earthquake compliance.

04

Global Applications

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Island Resorts

Replaces water shipping, reducing costs and achieving ROI in under 2 years for island resorts.

Mining Camps

Treats high- TDS mine water, supplying 500 m^3/day to mining camps.

Operational Scale

187 systems operational worldwide, from the Sahara to the Pacific Islands, proving its versatility.

Disaster Relief

48- hour emergency deployment in collaboration with UNHCR for disaster relief efforts.









05

Engineering Excellence

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Hardware Reliability

Titanium membranes and nano- coating extend hardware lifespan in saline environments.

AI Software

Predictive maintenance with AI software provides 7- day advance failure alerts to minimize downtime.

Global Support

12 emergency hubs worldwide ensure 72- hour spare parts delivery for continuous operation.

Certifications

Certified with ISO 24800 Off- Grid, World Bank Climate Innovation, and NSF/ANSI 61 Drinking Water Safety.

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Contact Us



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