

Solar-Powered Water Pumping



Solar-powered water systems offer lasting safe water solutions and transformational hope for communities around the world.

In addition to being beneficial for the environment, solar-powered pumps enable solutions that are financially and operationally sustainable, creating new opportunities for many communities.

With more than 1,200 solar-powered systems installed worldwide, Water Mission has experienced a very low failure rate. We have also seen a significant reduction of overall lifecycle costs when compared to alternative pumping methods designed for equivalent service areas and lifespans. Our extensive experience in

designing, constructing, and supporting solar-powered pumping solutions continues to confirm the technology's viability and cost effectiveness for delivering safe water to people in need.

Water Mission is a nonprofit Christian engineering organization that transforms lives of people in developing countries and disaster areas through sustainable safe water and sanitation solutions. Using state-of-the-art technology and engineering expertise, Water Mission implements customized solutions through a comprehensive community development approach across Africa, Asia, Latin America, and the Caribbean.

ADVANTAGES OF SOLAR PUMPING



TECHNICAL



SOCIAL



ECONOMIC



ENVIRONMENTAL



San Juan, Puerto Rico

Water Mission is available to consult on the application of solar pumping in any specific context. Most recently, we hosted trainings in Puerto Rico and Malawi for partners and international staff on increasing solar pumping capacity, adhering to best practices, and more. **For more information, visit watermission.org or contact us at partnersupport@watermission.org.**



ADVANTAGES OF SOLAR PUMPING

Serve more people per water point.

With high flow and pressure capacity, solar pumping can serve a large number of people. This has potential to significantly reduce issues associated with queuing times often experienced at community water points. Solar power enables Water Mission to serve communities of all sizes, with active projects ranging from 300 to more than 200,000 people.



Treat, store, and distribute water from ground and surface sources.

Solar pumping solutions can easily include the option of treating and storing water in elevated tanks, which is not possible with more traditional methods. When combined with distribution, this means that safe water can be reliably provided where end users most need and want it, regardless of whether the source is “improved” or “unimproved.”



Provide high levels of service in remote areas.

Compared with alternative pumping methods, solar pumps grant equal or greater levels of quantity, accessibility, and reliability without relying on the presence of grid power or generators.



Minimize operation and maintenance costs.

Solar pumping systems significantly reduce power costs by decreasing or eliminating reliance on expensive alternative power sources. Solar-powered systems require very little capital maintenance while continuing to function for 10+ years. Solar is a dependable, clean, renewable source of energy, which is a key advantage in disaster situations when other power options have been disrupted or destroyed.

