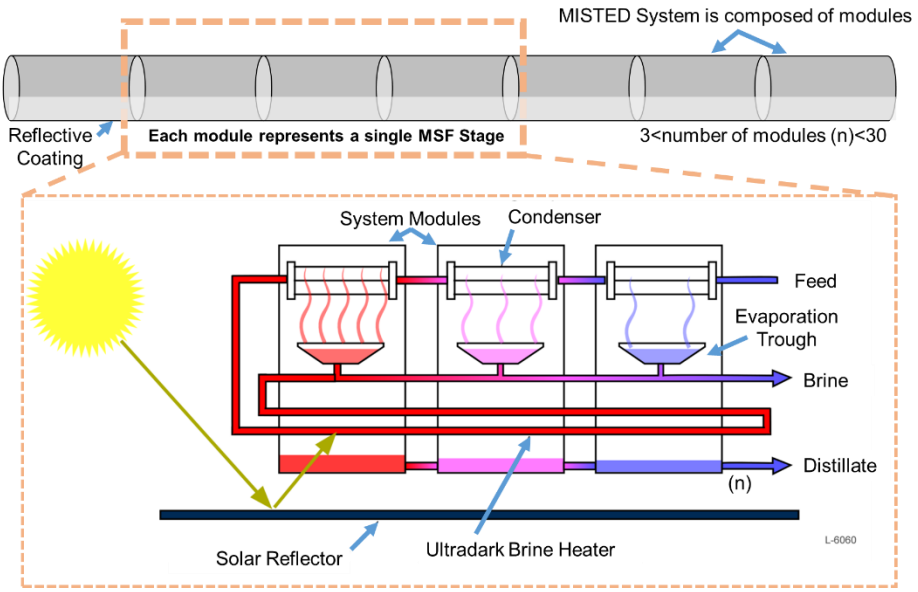
Modular Inexpensive Solar Thermal Evaporative Desalinator (MISTED)

Physical Sciences Inc.

170522-042 Quad Chart



Modular MISTED system stacks layers of multi-stage flash (MSF) for highly scalable design

The MISTED Team

- **Physical Sciences Inc (PSI)**: Technology developer with design and fabrication capabilities
- **Winner Water Services (WWS)**: Pilot plant operator and commercialization partner
- **Corning Inc:** Innovator and US domestic manufacturer of glass system components
- **National Renewable Energy Lab (NREL)**: Techno-Economic analysis and design support
- **Brackish Groundwater National Desalination Research Facility (BGNDRF):** Four wells on-site provide representative ground water with varying levels of salinity

Our team has design, operations, manufacturing and economic analysis, and commercialization expertise

- **Initial target market:** Treating high TDS produced water at remote oil and gas well heads, providing distilled water to support industrial-scale clean hydrogen production

PSI tested a two-stage laboratory prototype

Key Technical Advantages

- **Low Cost Design and Operation**: MISTED system is constructed using conventional, low-cost components.
- **Combination of Multi-Stage Flash and Concentrated Solar Power**: Ultra-efficient design captures maximum sun light while re-capturing latent heat of water evaporation.
- **Efficient Self-Contained Design:** Modular system allows scaling plant size up or down to need customers exact needs

MISTED system leverages key advantages to achieve a levelized cost of water of <$3.33/m^3