

# DOE Solar Desalination Prize:

## RaInsolation - *Using the Sun to Make it Rain*



A brine evaporation system that utilizes active control of brine temperature, brine injection rate, and air flow, to maximize treatment rate and minimize levelized cost of water for **small volume industrial brine producers** in a humidification-dehumidification desalination system.



### Concentration Solar Thermal Collector

Concentration Ratio > 600

Optical efficiency = 0.82

Used to obtain flexible GOR values depending on application.

### Target HDH Performance Metrics:

Levelized Cost: < \$18/m<sup>3</sup> recovered water via HDH

Levelized Cost: < \$9/ m<sup>3</sup> brine minimized (evap only)

Electric Energy: <15 kWh/m<sup>3</sup>

Recovery: > 50%

Four test sites interested in piloting our technology in Phase 3.