



The Cool Side of Solar Thermal

# Solar Thermal Desalination

**Clean Water/Desalination** - this \$18 billion (worldwide) market is growing at a rate of 55% annually, yet much of the industry is still exclusively dependent on natural gas.<sup>1</sup>

**Artic Solar's** ultra-high efficiency KING collector with natural gas backup provides the lowest cost of energy available today as well as a substantial reduction in green house gas emissions (see chart below).

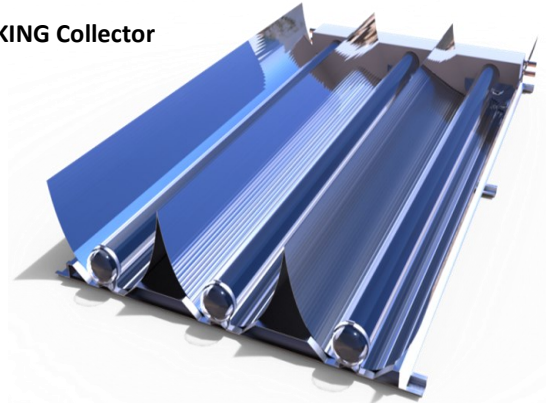
Our advanced system combined with a heat pump deliver a proven 49% reduction in thermal energy usage in a multi-effect distiller (MED) desalination system.<sup>2</sup>

Unlike standard solar systems, the KING collects both direct and indirect sunlight, allowing for usage across the globe. No moving parts and a dust-repellent coating mean minimal O&M costs. Our low-profile roof-mounted systems blend into any environment.

Complete project design, engineering services & financing available.

<sup>1</sup> International Desalination Association Report: Technical Review and the Economics of Water Desalination 2013  
<sup>2</sup> Pilot Demonstration of Concentrated Solar-powered Desalination, Stuber, et al. in Desalination 2015

KING Collector



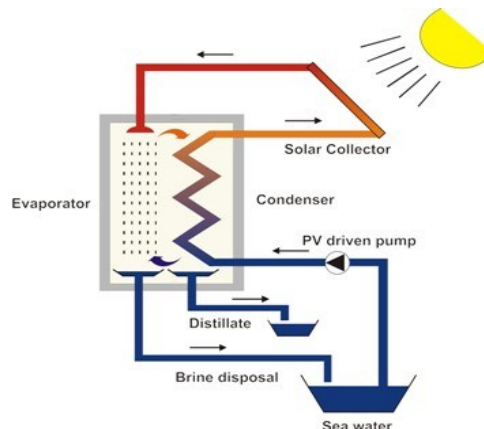
## Benefits

- ☞ Extends system life
- ☞ Lowest levelized cost of energy of any solar technology
- ☞ Distillation or Evaporation
- ☞ 26% federal tax credit including all components materials and installation labor (USA)
- ☞ Grants & incentives available in some areas
- ☞ Non-tracking lowers O&M costs



Multi-Effect Distillation

## How it Works



## Savings & Green House Gas Reductions

**Example: 100Kw System (100 XCPC's)**

**Natural Gas = 14,800 Therms saved /yr**

174,000 lbs. of CO<sub>2</sub> and 220 lbs. No<sub>x</sub>

**Electric = 300,000kWh saved per year**

410,000 of CO<sub>2</sub> and 1,498 lbs. No<sub>x</sub>

**HIGHEST REDUCTIONS OF ANY SOLAR TECHNOLOGY ON THE MARKET!**

**CALL TODAY FOR A QUOTE**

Brought to you by:



Jacksonville, FL, USA

www.articsolar.com

904-513-4638

Bill@articsolar.com

