The Cool Side of Solar Thermal

Solar Thermal Evaporation & Desalination

KING Collector

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.1

Artic Solar's ultra-high efficiency KING Collector generating temperatures in excess of 400oF when used with natural gas backup, it 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.2

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.

1 International Desalinization Association Report: Technical Review and the Economics of Water Desalinization 2013

2 Pilot Demonstration of Concentrated Solar-powered Desalination, Stuber, et al. in Desalinization 2015
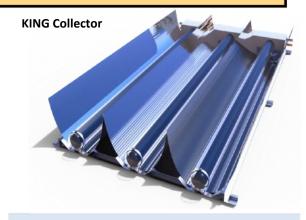

Multi–Effect Distillation

Oil & Gas Production water process

affluent or brine evaporation

Landfill leachate processing,

Municipal Waste Treatment

using Solar Thermal

Benefits

ⓐ Zero Liquid Discharge

ⓐ Increased efficiency of spray evaporation systems

ⓐ Provides Distillation or Evaporation

ⓐ 26% federal tax credit including all components materials and installation labor (USA)

ⓐ Non-tracking lowers O&M costs

ⓐ Collects both direct and diffused sunlight

Savings & Green House Gas Reductions

Example: 100Kw System (100 XCPC's)

Natural Gas = 14,800 Therms saved /yr

174,000 lbs. of CO_2 and 220 lbs. Nox

Electric = 300,000kWh saved per year

410,000 of CO_2 and 1,498 lbs. Nox

HIGHEST REDUCTIONS PER m2 OF ANY

SOLAR TECHNOLOGY ON THE MARKET!

CALL TODAY FOR A QUOTE