

Capabilities Statement For Industry

Artic Solar, Inc. is a certified Veteran Owned Small Business capable of providing Solar Energy solutions to Commercial and Industrial customers with a full range of solar services including industrial process heat and high efficiency solar cooling, as well as on-site electrical generation. Artic Solar manufactures the industry-changing KING high-temperature collector, the simplest and most cost-effective source for industrial-scale / commercial solar thermal energy and steam.

The Artic Solar Heating & Cooling Team's experience includes more than 250 systems operating throughout the United States and the world. Our service offerings include project development, design & engineering, customer proposals, project management, installation & commissioning. We are ready to provide the solar solutions and development partnerships anywhere in the country or globally. Artic Solar maintains strategic partnerships with qualified companies to assist in the EPC and ongoing O&M contracts for speed of development and efficiency.



KING:

- Solar Ratings & Certification Corporation (SRCC) Certified
- Advanced Solar Thermal Collector
- High Temperature—Non-tracking KING Concentrating Parabolic Collectors for up to 400°F
- Works Efficiently in Both Direct and Indirect Sunlight Allowing for Installations Worldwide
- Displaces Natural Gas and Electricity
- · Reduces Emissions and Demand Charges

COMMERCIAL APPLICATIONS

Steam, Industrial Process Heat & Hot Water

- Steam Boilers
- Absorption Chillers for Heating & Cooling
- Water Treatment/Desalination
- Evaporation of Process Waste Water
- Dehumidification/Drying
- Pasteurization/Sterilization
- Oil & Gas: Steam Injection for Extraction
- · Metals and Plastics Pre-Heating
- Waste Treatment
- Thermochemical Processes
- Cooking

Electric Generation

 On-Site Electricity Generation (using ORC Heat Engine Generators or Steam Engines)

A/C and Refrigeration

 Absorption Chillers using Single or Double-Effect Absorption Chillers with LiBr or Ammonia

INDUSTRIE S SERVED

- Manufacturing Plants (Steam)
- Brewery & Distilled Beverage Processing
- Food & Beverage Proc essing
- Meat & Poultry Processing
- Dairies & Milk Product Processing
- Water/Waste Processing
- Hotels/Resorts
- Multifamily Housing
- Incineration
- K-12 Schools
- Universities: Dining Halls & Dormitories
- Retirement Homes
- Hospitals
- Corrections (Federal, State & County)
- Commercial Laundries
- Agriculture

High Temperature KING Solar Thermal Collector

The KING is a Concentrating Collector (NICC) that pairs a custom evacuated tube solar collector with an external reflector in a non-tracking, roof or ground mountable system. This combination enables the KING technology to cost effectively achieve temperatures in excess of 200°C (392°F) with up to 60% efficiency - which current market incumbents cannot attain without costly tracking. The concentration ratio is 1.4 meaning the absorber receives an additional 40% of the suns energy allowing the collector to achieve high temperatures. The KING collector power rating is 1.5 kW. Perhaps the greatest advantage over competing high temperature solar thermal technologies (trough and linear Fresnel) that can achieve 120°Celsius and higher temperatures is the simple to deploy collector design. Aesthetics are also important- the NICC is the only high temperature collector to be configured in an extremely low profile. The KING is the best solution for building integrated and large scale high temperature heating or steam applications.







