



## Why plan your "Solar Power" with us?

Alpine Energies Pvt. Ltd. (AEPL), a 100% renewable company, is involved in providing consultancy, design, Engineering, Procurement and Commissioning (EPC) services for renewable energy projects in India by its parent company, M/s. Alpine Energies (since the year 2005) & have executed several renewable energy based projects specifically solar thermal system viz. Solar hot water systems; and Solar PV Power PLANTS and in many-many more categories

ALPINE ENERGIES (Prop.)

Since 2005

## We help you to harness the "Power of SUN"

Check out our social media

 @alpineenergies

Or contact us at

 +91 98214 90566, +91 92121 36611

 mktg@alpineenergies.com

 www.alpineenergies.com



## SOLAR WATER HEATING SYSTEMS - FPC / ETC



ALPINE ENERGIES  
Private Limited

Since 2015

## Solar Solutions for LifeTime



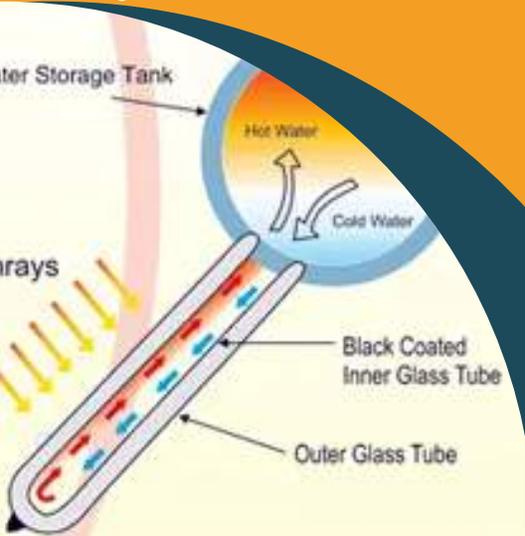
+91 11 47063640

+91 98214 90566, 91 92121 36611

# Working Principle

Solar water heating systems using vacuum tubes made of borosilicate glass with special coating to absorb the solar energy are called as Evacuated Tube Collector system (ETC Systems).

Air between the gap of two glass tubes is evacuated. It results in high level of vacuum, which acts as the best insulation to minimize the heat loss from inner tube. The black coating on the inner tube absorbs the solar energy and transfers it to the water. The water on upper side of Vacuum Tube becomes hot and thus lighter, so it starts moving upwards in the tank. At the same time cold water, which is heavy, comes downward from the tank and is stored at the bottom. The phenomenon is called as natural Thermosyphon circulation, which occurs in every tube.



## Choose your model

### ● Integrated Tubes Model



This is the most common used Solar water Heater with the ETC glass tubes being integrated in the hot water tank of Solar Water Heating System.

### ● Manifold Tubes Model

The ETC tubes are arranged in a manifold instead of tubes being integrated within the tank. The manifold is hereby integrated with the hot water storage tank.

**Benefits:** Heat Exchanger can be incorporated for extreme hard water applications & for high altitude areas where temperature is sub-zero. Heat Exchanger can also be useful for maintaining certain pressure inside the hot water storage tank



# A 100% Renewable Company

### ● Experienced WORKFORCE

AEPL maintains its personalized & experienced task force and customer handling on one to one basis.

### ● Technical SUPPORT

AEPL supports all its customers with the appropriate technical support in order to provide appropriate product sizes and capacities, as per the client's requirements.

### ● Customer TRUST

AEPL maintains life long relations with its customers providing them seamless customer support, since last so many years by now

### ● PAN INDIA INSTALLATION

AEPL have secured & successfully executed several Solar thermal, Solar Photovoltaic & Solar Water treatment projects from various Govt. departments, Corporate organizations, and famous Private Entities as well

