

Solar Water Heating Systems In The Tourist Industry



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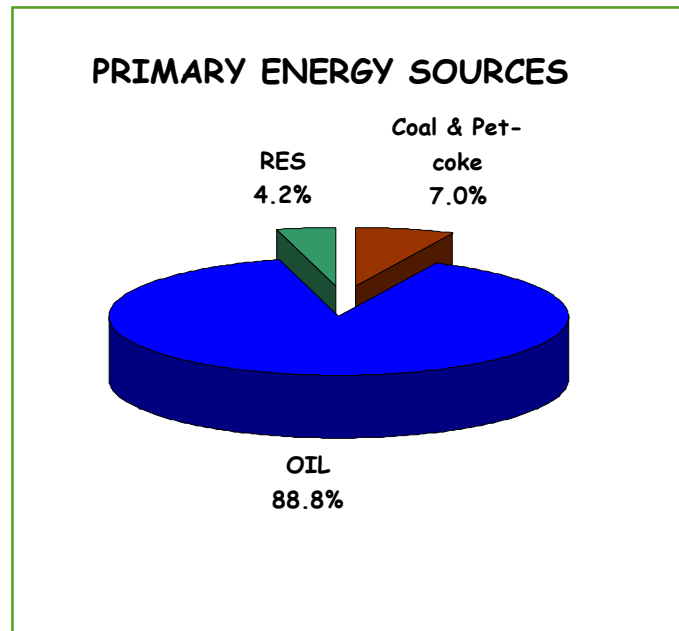
Overview

- ▶ Energy Balance In Cyprus
- ▶ Historical Background
- ▶ Technology Overview
- ▶ Cost Analysis Of Technology
- ▶ New Installations In Hotels
- ▶ Solar Industry In Cyprus
- ▶ Benefits of Incorporating These Technologies In Tourist Industry



Energy Balance In Cyprus

- Cyprus Has No Energy Resources
- Totally Dependent On The Import Of Fuels
- The Only Undeniable Energy Source On The Island Is **Solar Energy!**



Historical Background

Early exhibition of systems.



Ιδιωτική Εμπορική Έκθεση στην Λευκωσία το 1960 που οργάνωσε η Εφημερίς «Φιλελεύθερος» στην Τάσσο Νταβίλα και τα εγκαίνια τέλεσαν ο τότε Πρόεδρος Αρχ. Μακάριος ΙΙΙ με τον τότε Τούρκον Αντιπρόεδρο Φαζήλ Κουτσούκ.

Cyprus started manufacturing solar systems in 1960.



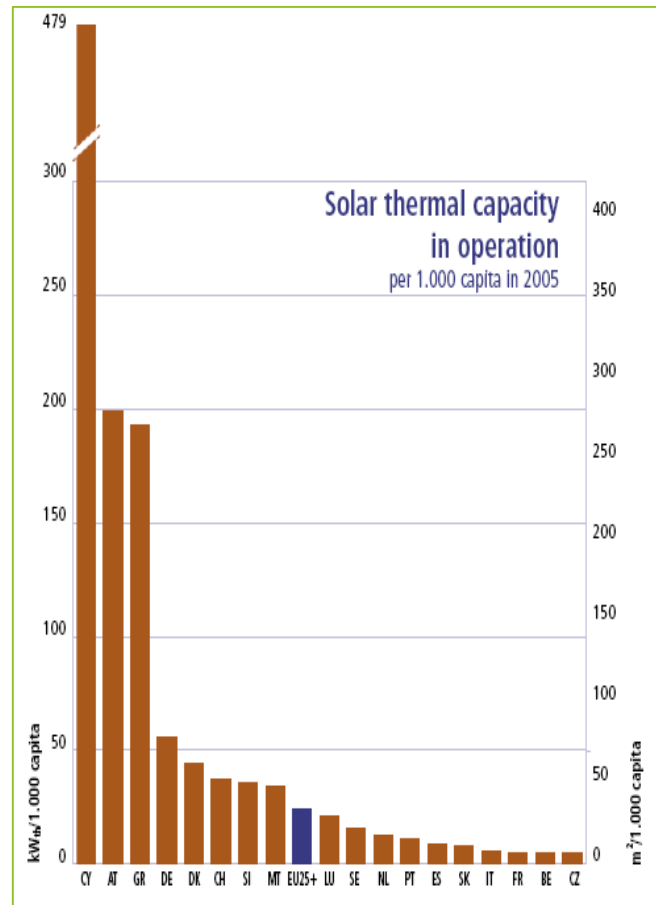
Current Situation

Cyprus is the first country in the world with respect to installed solar thermal collectors per capita.

The EU Study "Sun in Action" ranks Cyprus first with .86 m² of installed solar thermal collector per capita.

Today, about 750,000 m² of solar thermal collectors are installed in Cyprus.

54% of hotels use solar thermal systems

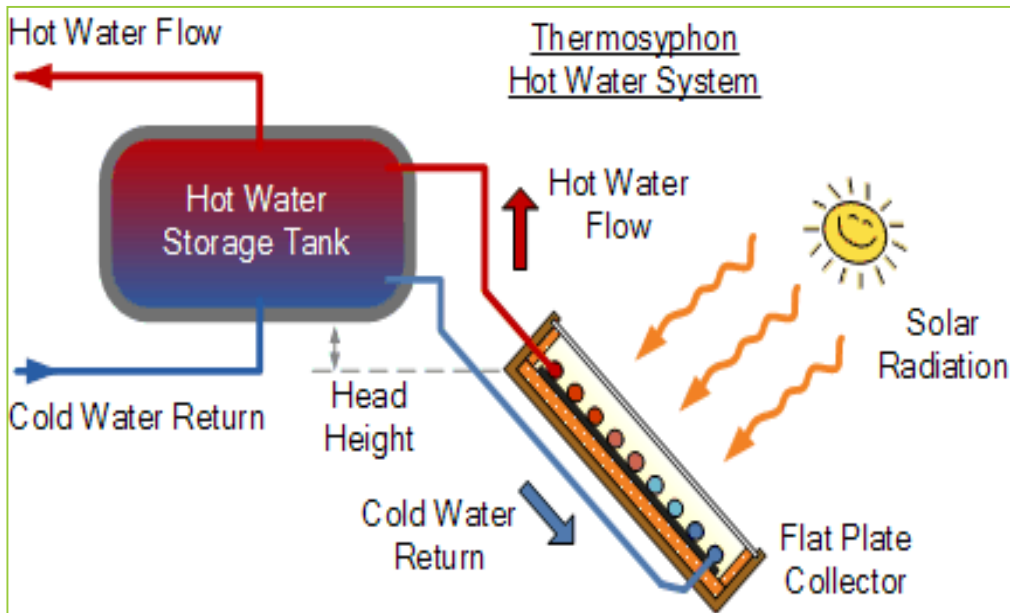


Reasons for Success

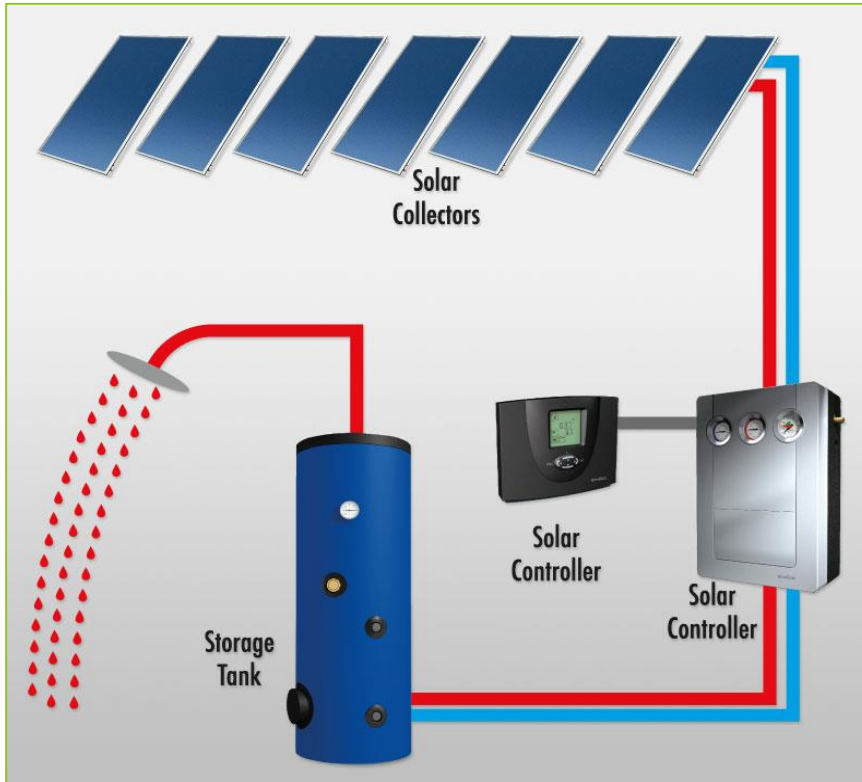
- ▶ Favorable Weather Conditions
- ▶ No Indigenous Conventional Energy Sources
- ▶ High Cost Of Electricity
- ▶ Quality And Reliability Of Local Solar Systems
- ▶ Dynamic Local Solar Industry
- ▶ Government Incorporated The Technology In Their Buildings
- ▶ Government Subsidy schemes



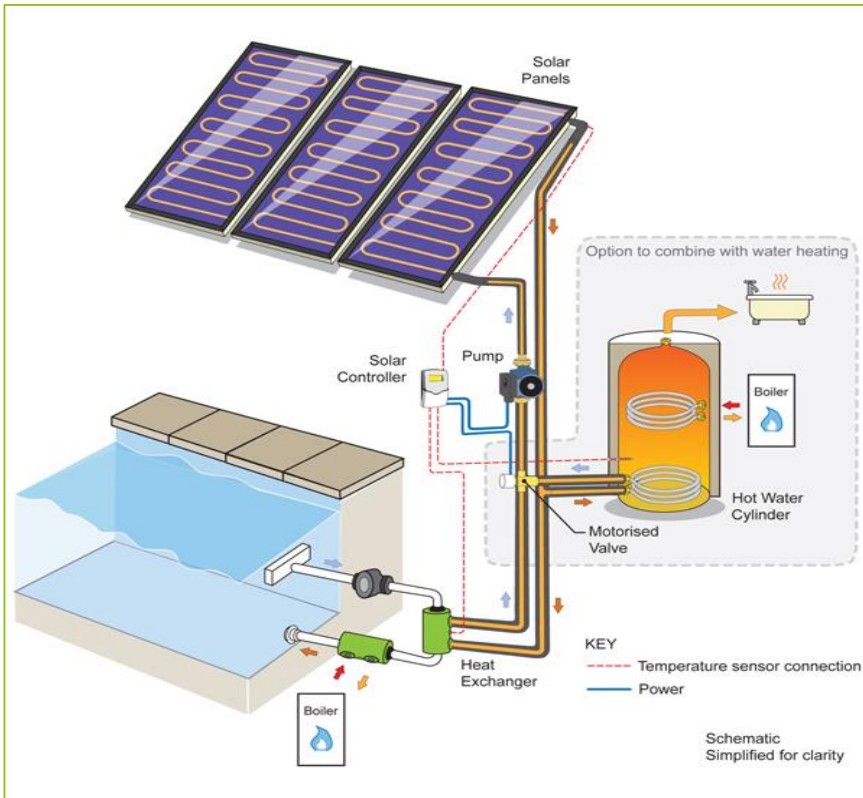
Solar Thermosyphon System



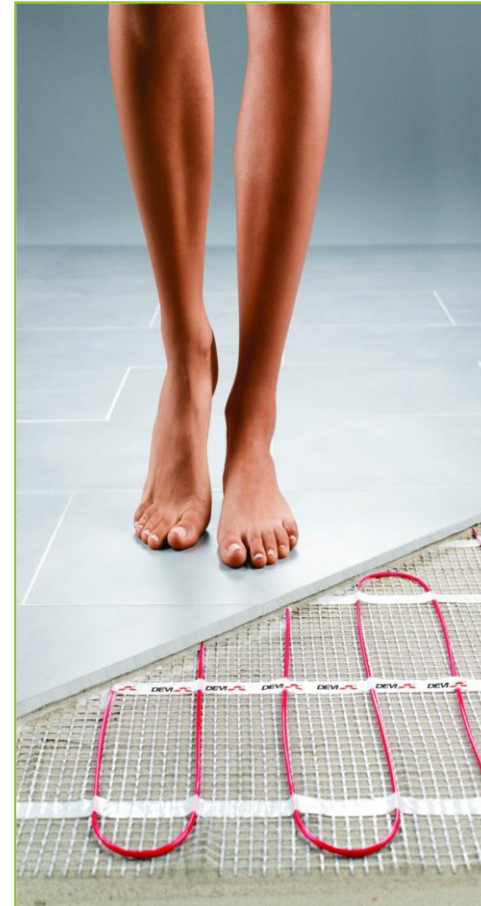
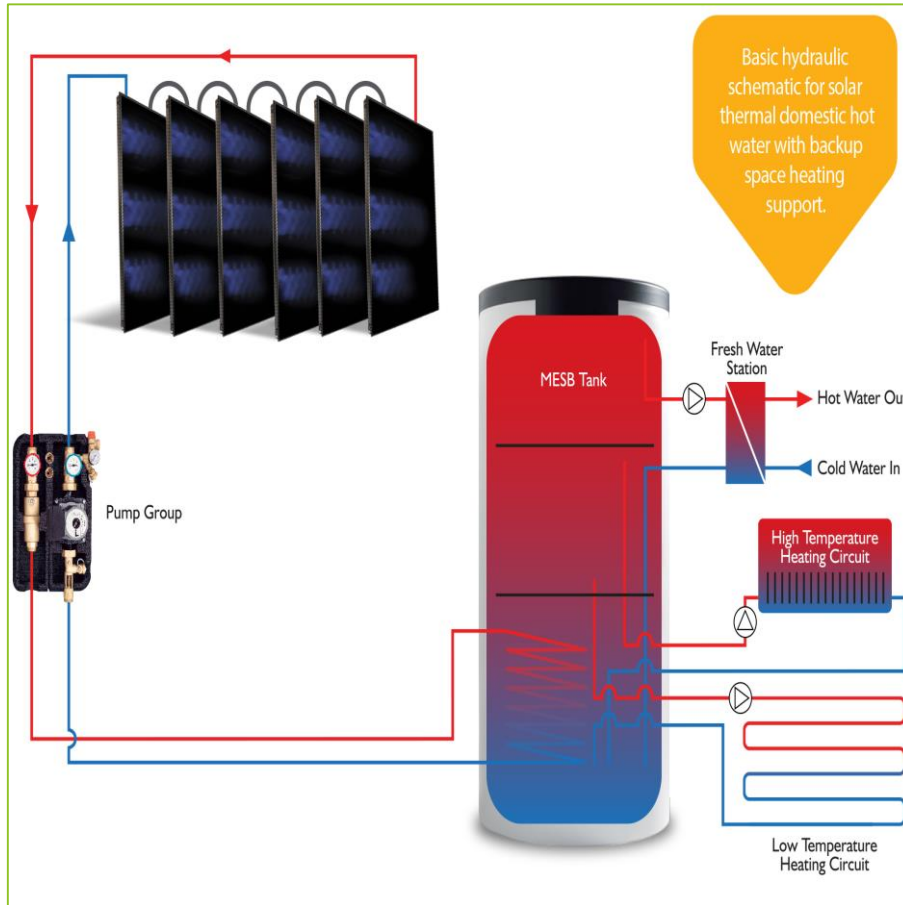
Solar System For Hot Water Use



Solar Pool Heating



Solar Space Heating



Cost Analysis

Type	Project	Collectors (m ²)	Buffer tank (L)	Cost (€)	Subsidy (€)	Savings €/year	Simple payback period (yrs)
Thermosyphon	Apartment Agia Napa	2.5	200	1200	0	573	2.1
Hot Water Use	Hotel Agia Napa	160	7500	99000	20000	15000	5.14
Hot Water Use	Hotel Pafos	240	Existing	80400	20000	15500	3.8
Space Heating	Hotel Limassol	36	2900	37247	12975	3300	7.3

New Installations 2004-2012

Type	Solar collectors (m ²)	KWh/Year	Tons CO ₂ emissions
Hot Water Use	8790	4,349,894	2559
Space Heating	456	216,407	127
Pool Heating	392	172,889	101

Solar Industry



EBHEK

Solar Industry (Future)

- ▶ The know-how (since 1960)
- ▶ Good Technological Base
- ▶ Quality And Production Improvements In Recent Years
- ▶ Number 1 in the World!!!!
- ▶ EU Certified (CE, ISO, Solar Keymark)
- ▶ Certified Testing Laboratory In Cyprus
- ▶ Collaboration Of Industry, Testing Laboratory And University For R & D

Benefits Of Incorporating Solar Thermal In The Tourist Industry

- ▶ The Tourist Product Becomes More Competitive
- ▶ Green Tourism(Marketing Tool)
- ▶ Lower CO2 Emissions In A Very Energy Consuming Industry
- ▶ Lowering The Dependence On Fossil Fuels
- ▶ Creation Of Jobs In The Country



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