

U.S. Solar Thermal Market

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Solar Energy Industries Association

ASHRAE/AHRI Expo

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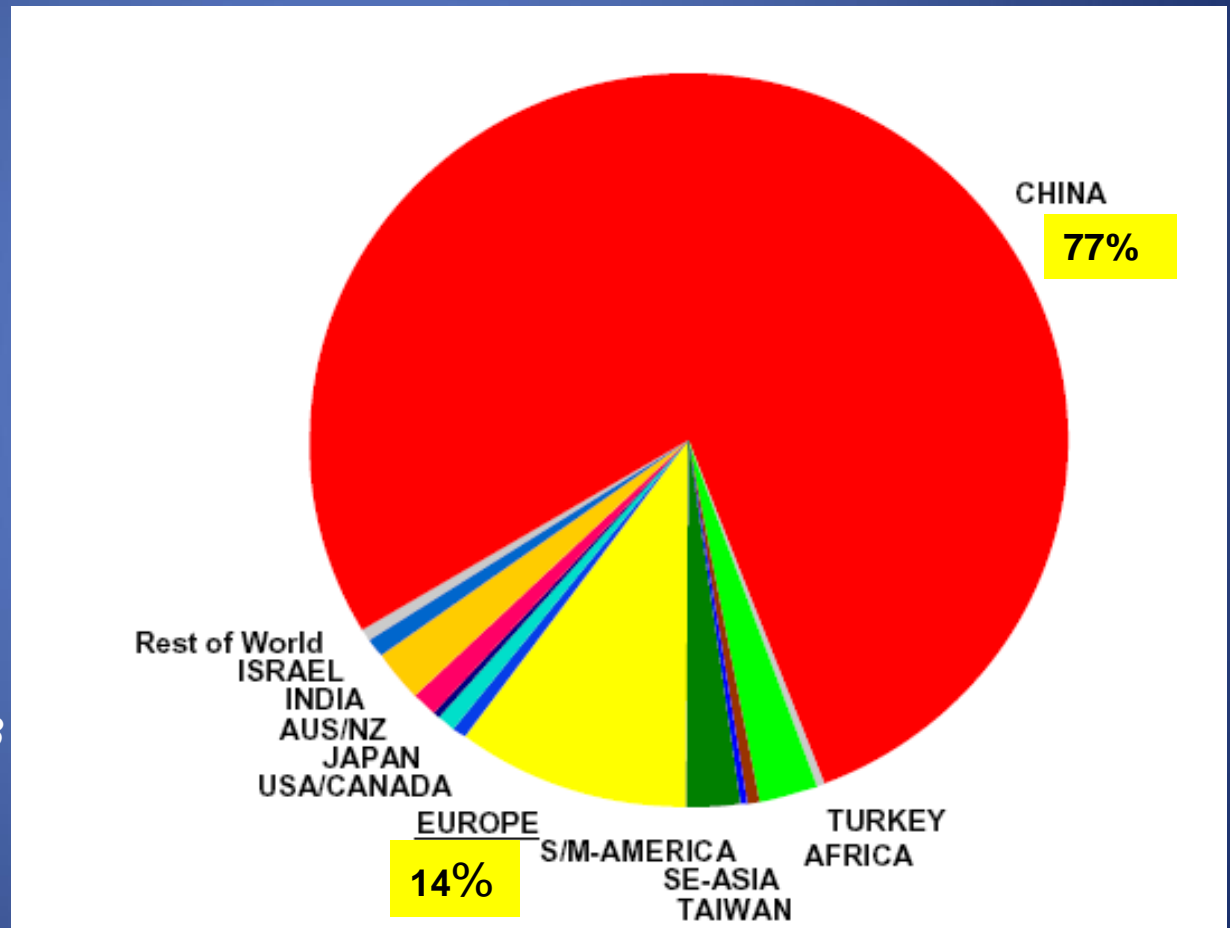
Global Solar Thermal Market

Newly Installed Solar Thermal Collectors

Approx: 20 GW_{th}
Equivalent to:
28,300,000 m²

4,716,000
64 square foot
systems

Preliminary data May 2008
Source: Koldehoff

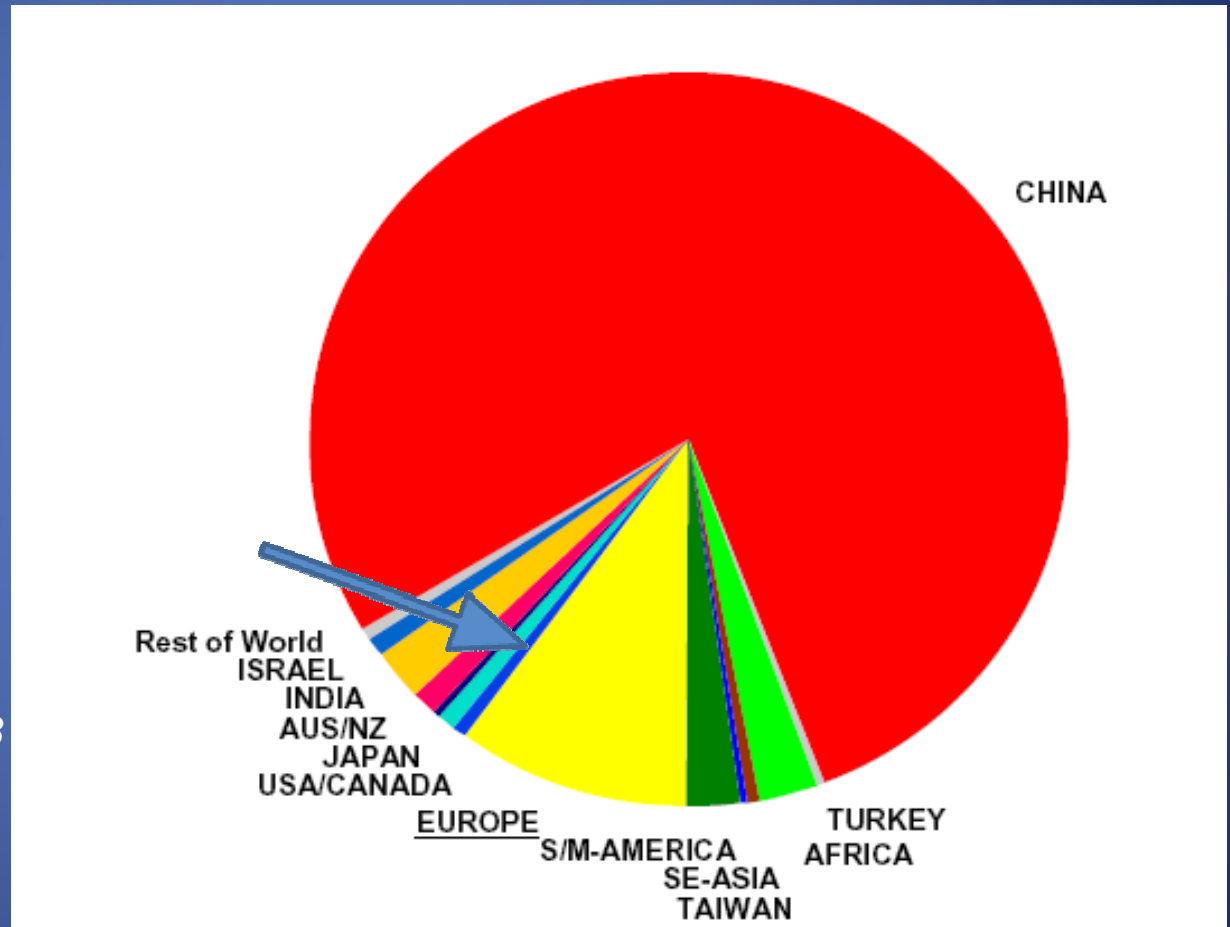


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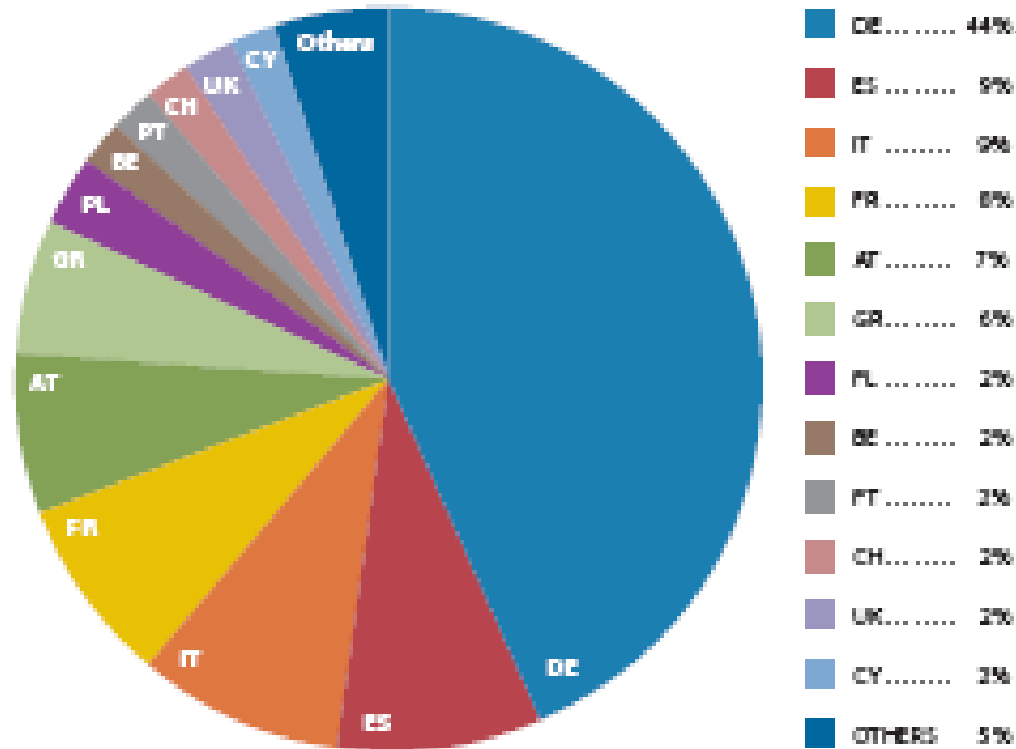
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US Market Compared with European Market

Share of the European solar thermal market

USA



Germany 2008
Installations
2.1 million m²
-1.9 million Flat
Plate
- 200,000 Tube

Poland @ 2%
365,000 m²

USA 2008 Estimated
180,000 m²

Czech Republic
2008
Installations
165,000 m²

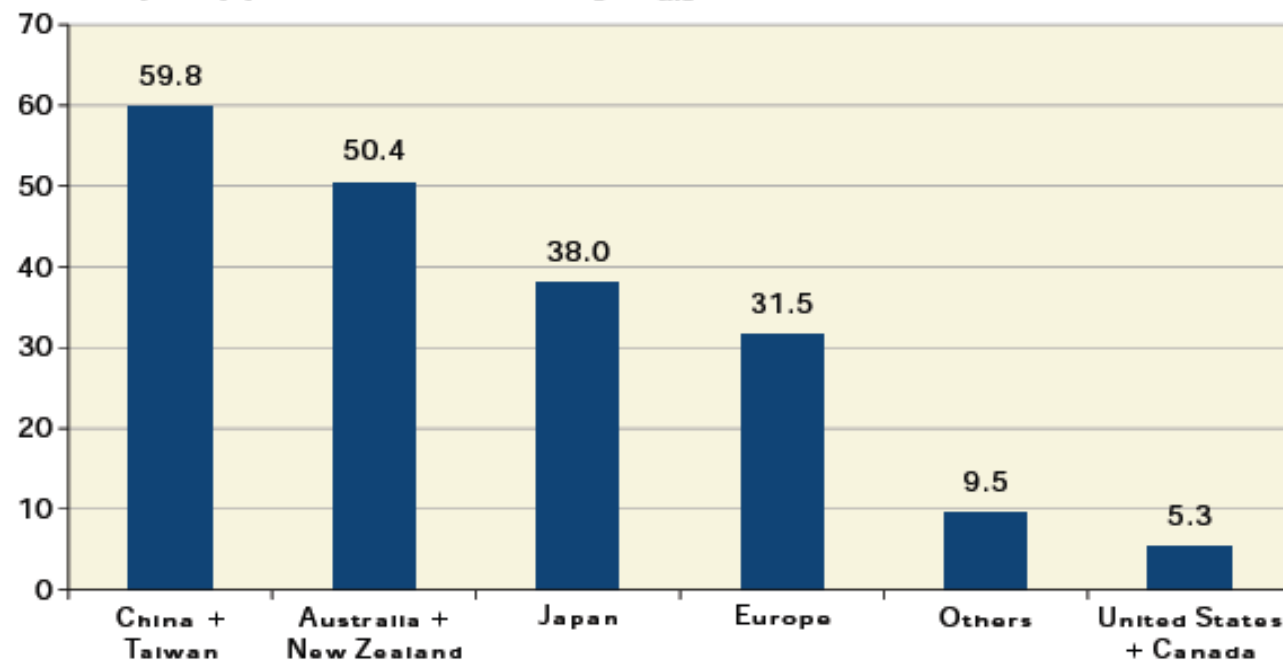
NEW 2008 Data (Courtesy ESTIF):
Total European Market: 4,763,000 m²
%

USA = 3.7

Total Capacity of Glazed Flat-Plate and Evacuated Tube Collectors in 2007, per 1,000 Inhabitants

Source: Solar Heat Worldwide 2009, <http://www.iea-shc.org/>

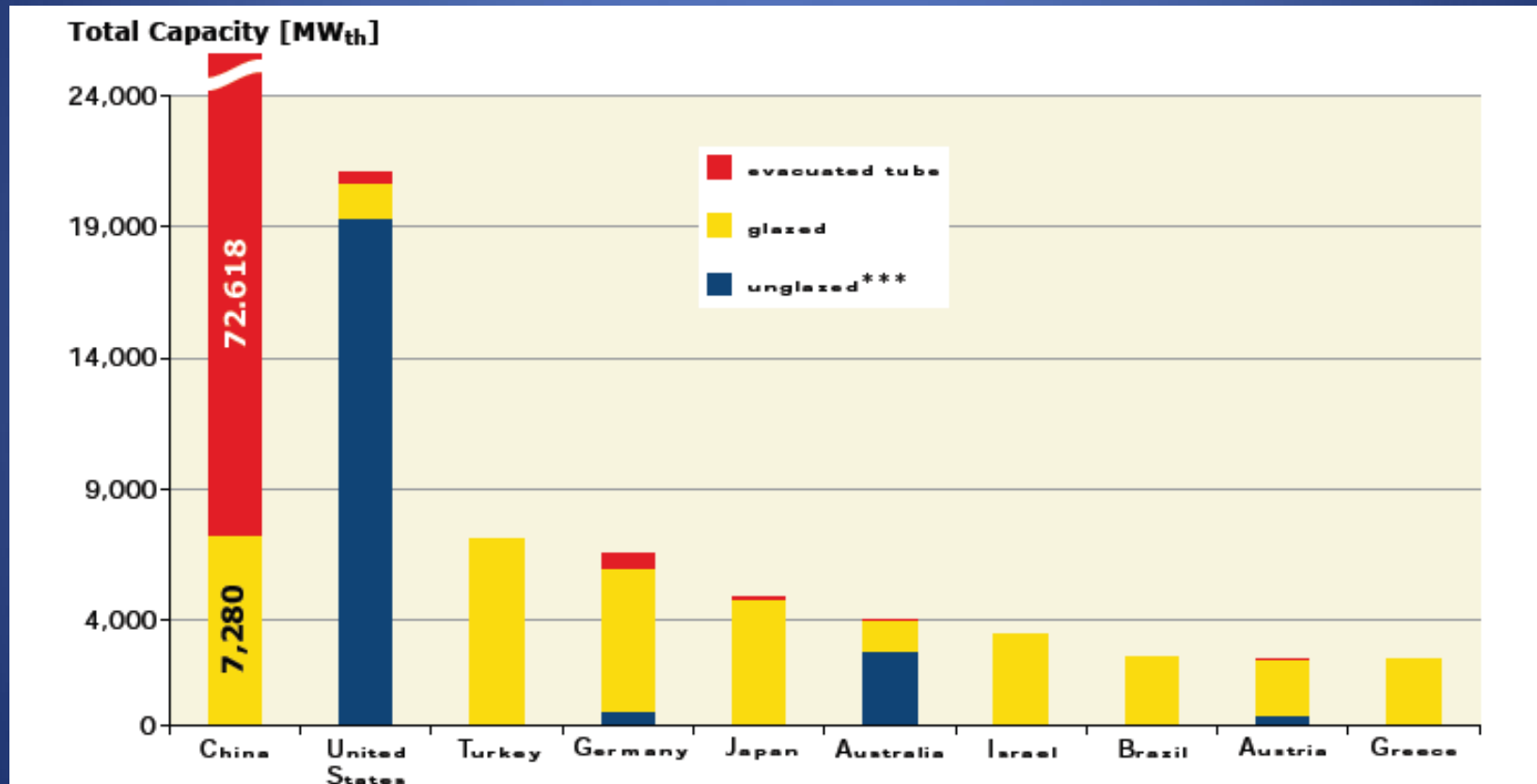
Total capacity per 1.000 inhabitants [kW_{th}]



Europe: EU-27, Albania, Macedonia, Norway, Overseas Departments of France, Switzerland;

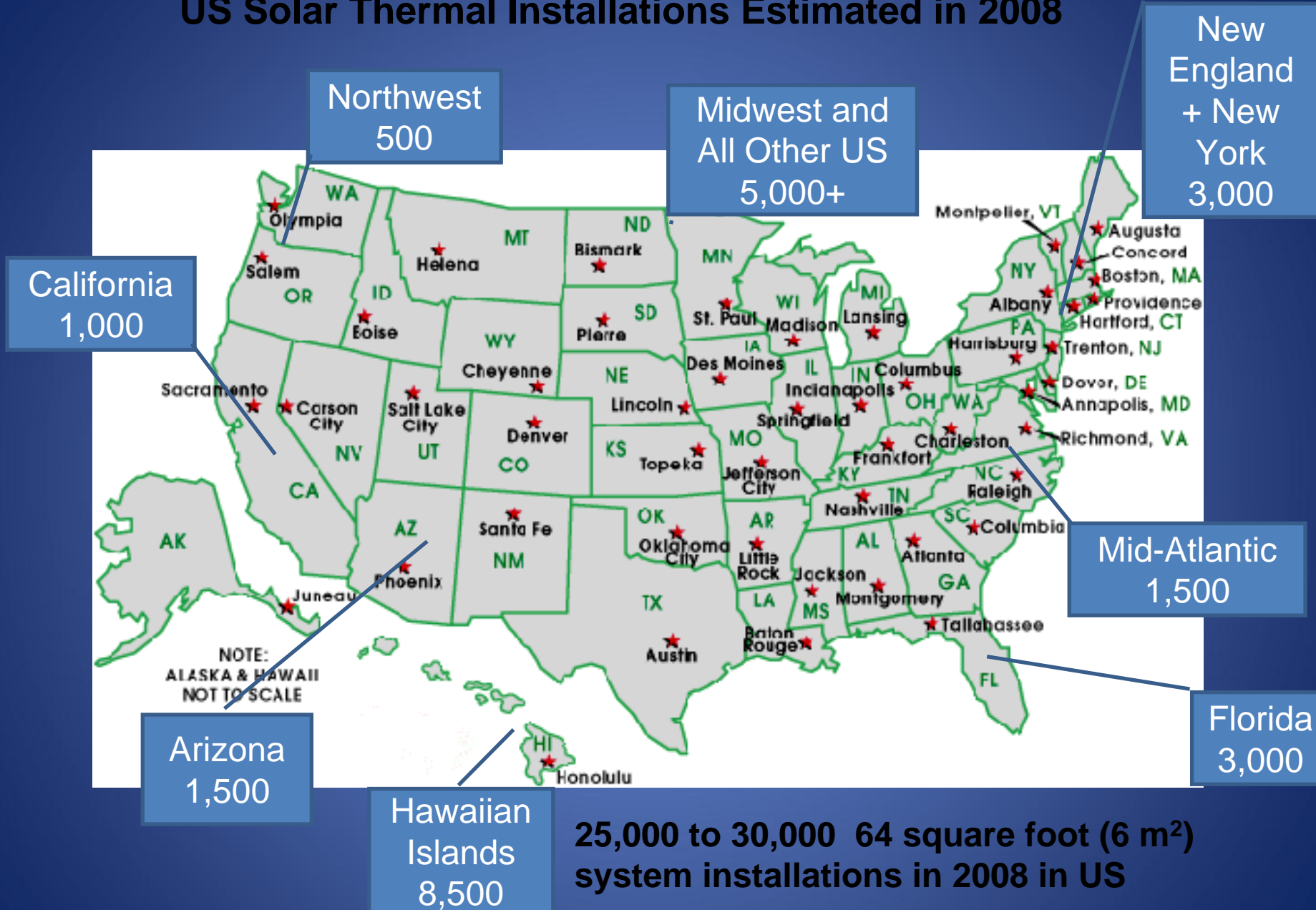
Others: Barbados, Brazil, India, Israel, Jordan, Mexico, Namibia, South Africa, Tunisia and Turkey

2007 Capacity by Country and Type



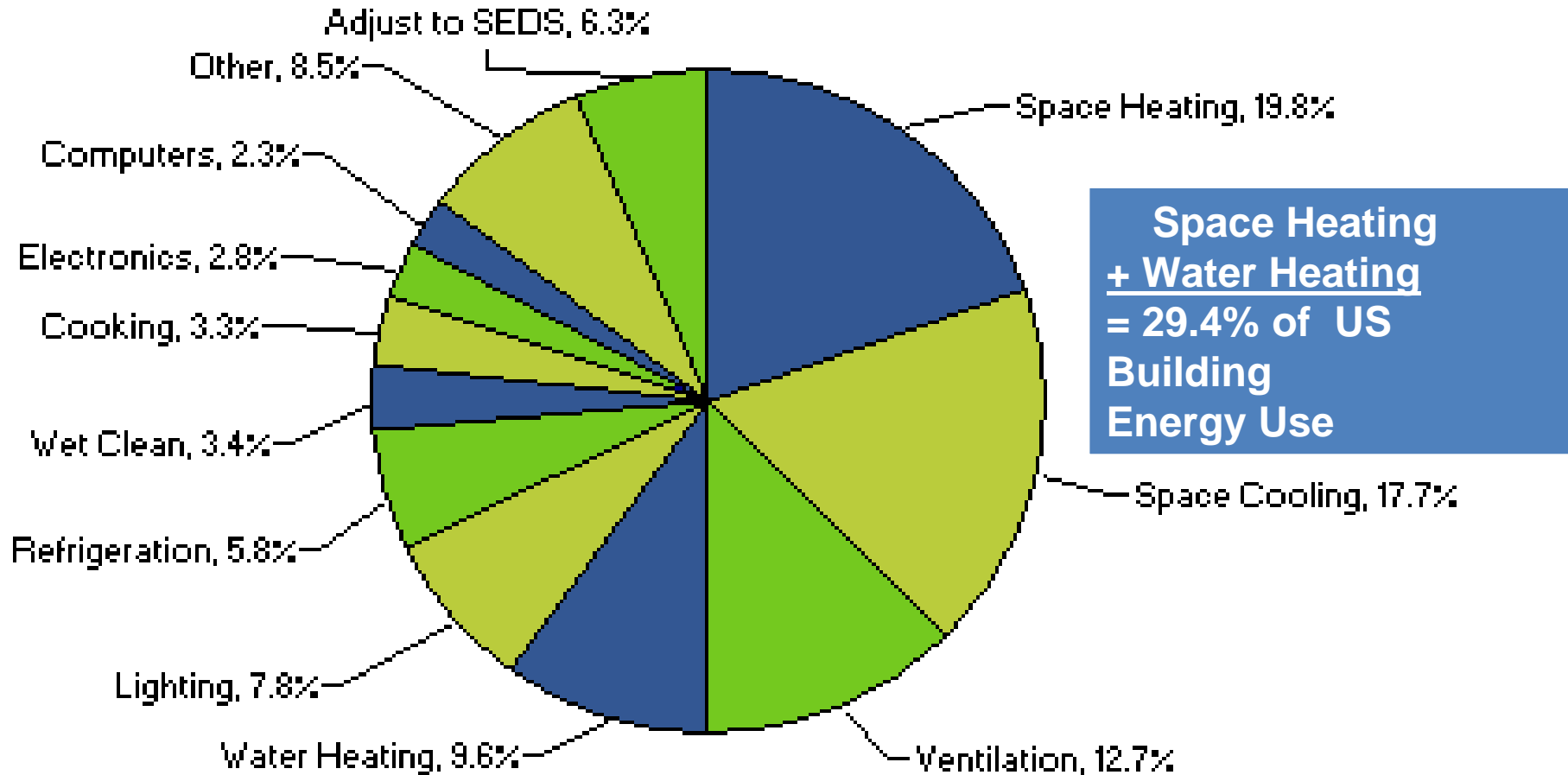
IEA-SHC Program, Solar Heat Worldwide 2009.

US Solar Thermal Installations Estimated in 2008



End Use Energy in the US

2006 U.S. Buildings Energy End-Use Splits



Current Trends

- Solar Water Heating
 - Rapid Increase of Imports
 - Evacuated Tube Collector Models Proliferating
 - General Consensus: 2009 Installations Flat or Slightly Lower
- Solar Swimming Pool Heating
 - 2009 Sales Flat to Slightly Lower
 - Over 35,000 system equivalents installed (@ 350 feet²/system)
- Solar Space Heating
 - “Combi-system” interest grows
 - Air heating collector-based system interest grows
- Solar Air Conditioning
 - Interest growing as an electricity consumption reduction measure

Solar Rating & Certification Corporation



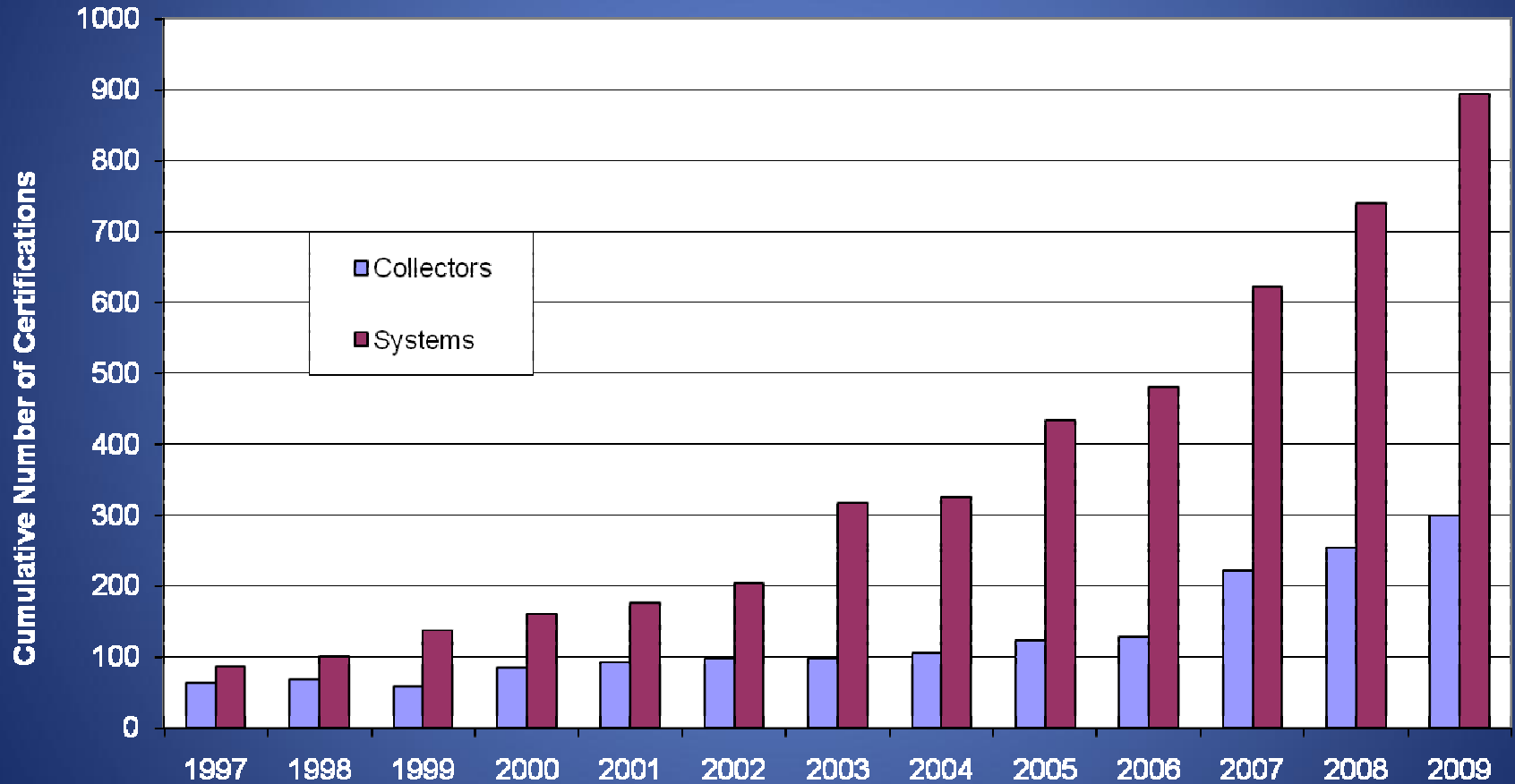
- Non-profit Corporation established 1980
- Internationally recognized standards (ISO 9806-1, 2 & 3)
- ~ 74 Participant Suppliers
- ~ 300 solar collectors certified (OG-100)
- ~ 900 solar systems certified (OG-300)

Future SRCC Solar Thermal Objectives

- Certification for space heating (Combi-systems)
- Certification for concentrating solar collectors
- Certification for cooling (air conditioning) systems
- Standards for performance monitoring

SRCC OG-100 (Collector) and OG-300 (System) Certifications

Total at the end of each year (as of October 2009)





Solar Water Heating in the US 100 years ago
Los Angeles, California Homes
Circa 1910

Thank you!

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TUV Rheinland Immissionsschutz und Energiesysteme GmbH
Cologne
Germany 51105

Laboratories Offering SRCC Accredited Testing Programs

Pending as of October 2009:

1 Canada

2 Europe

4 US