

International Energy Agency Solar Heating and Cooling Opportunities

Ken Guthrie

Chair - IEA SHC Executive Committee

Overview

- SHC Strategy
- Current and Planned Tasks
- Opportunities for APVI

STRATEGIC



2014 - 2018

What do we mean by Solar Heating and Cooling? Technologies

Solar energy technologies and architectural designs that include active **solar thermal heating and cooling**, **photovoltaics for heating and cooling**, **passive solar** and **daylighting** are essential components of a sustainable energy future.

Applications

These technologies and design techniques can be applied to providing comfort, light and sanitary hot water in the built environment and heating, cooling and drying in industrial and agricultural processes.

Capacity Building

Also essential to the development of markets are improved **solar resource data**, worldwide harmonization of **test standards** and **certification programs** and the regular publication of **worldwide market data** on solar thermal heating and cooling

By 2050 a worldwide capacity of 5kW_{th} per capita of solar thermal energy systems installed and significant reductions in energy consumption achieved by using passive solar and daylighting: thus solar thermal energy meeting 50% of low temperature heating and cooling demand

MISSION

To enhance collective knowledge and application of solar heating and cooling through international collaboration in order to fulfill the vision

Current Tasks

Task	Capacity Building	Buildings Precincts	Systems	Materials
39				X
40		X		
41		X		
42				X
43	X			
44			X	
45			X	
46	X			
47		X		
48			X	
49			X	
50		X		
51		X		
52		X		
53			X	

NEW TASKS AND ACTIVITIES

- **Price reduction of solar thermal systems**
- **Multifunctional Facades**
 - Task Definition Meeting for both New Tasks — September 15-16 in Freiburg, Germany.
- **Deep Renovation of Historic and Listed Buildings - Towards Lowest Possible Energy Demand and CO2 Emissions**
- **‘Solar Academy’**
 - to transfer know how developed in the tasks to countries that are prime candidates for deployment.

Opportunities

- **Task 51 Solar Energy and Urban planning**
- **Task 53 New Generation Solar cooling systems**
- **Multifunctional Facades**
- **Deep Renovation of Historic and Listed Buildings - Towards Lowest Possible Energy Demand and CO₂ Emissions**
- **‘Solar Academy’ possible joint activity?**
 - APVI expertise
- **Standards involvement for developing countries**
 - ISO and UN interested in opportunities: APVI expertise in PV and heat standards?

Thankyou

sustainable energy
TRANSFORMATION



ken.guthrie@setransformation.com.au

www.setransformation.com.au