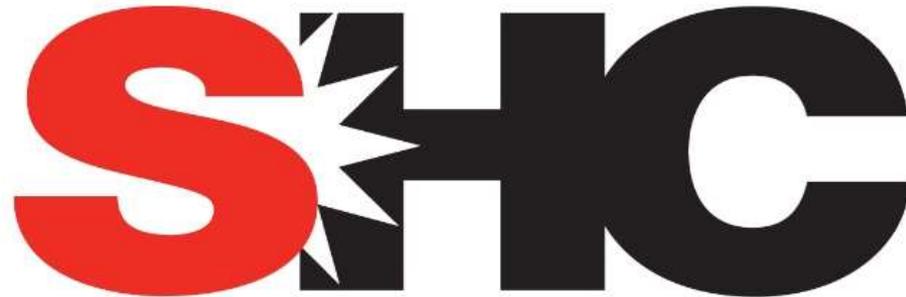




IEA Future Buildings Forum Think Tank Workshop - Existing Buildings: Pathways to Net Zero Carbon 2035
19th - 21st October 2022, Gatineau, Québec, Canada



SOLAR HEATING & COOLING PROGRAMME
INTERNATIONAL ENERGY AGENCY

Lucio Mesquita

IEA Future Buildings Forum Think Tank Workshop

October 2022



- **Established in 1977**
- **Currently 19 member countries and 9 member organizations**
- **Activities:** Projects (Tasks), Solar Academy, Solar Heat Worldwide, SHC Conferences and SHC Solar Award
- Solar heating and cooling defined as *solar energy technologies and architectural designs that include active solar thermal heating and cooling, photovoltaic driven heating and cooling, passive solar building design and solar architecture*



3 most important issues SHC TCP is facing

- **Development of new and innovative SHC applications**
 - Tasks 62,64,65 (wastewater, solar cooling, process heat)
- **Further development of SHC equipment and solar buildings/communities**
 - Tasks 63, 66, 68, 69 (solar neighborhood planning, solar buildings, solar DH, solar water heating)
- **Advancement of cross-cutting technologies to enable SHC deployment, e.g., energy storage**
 - Task 67 (compact thermal ES)



3 most important issues the TCP will need to deal with over the next 5 years

- Develop SHC solutions for a future with significant electrification of heating within most OECD countries
- Support further performance improvements, standardization and costs reduction
- Increase awareness and understanding on the potential and value of solar heating and cooling systems with thermal and PV technologies



What other TCPs can contribute to successfully address and resolve these issues

- Support initiatives to evaluate the impact of SHC technologies in the decarbonization of buildings and communities, particularly for cross-cutting technologies
- Assist on the development and distribution of information to relevant stakeholders
- Collaborate on supporting new applications



TCP collaboration

Current joint Projects (Tasks) and collaborations:

HPT (Heat Pumps), **SolarPACES** (Solar Power and Chemical Energy Systems), **ES** (Energy Storage), **DHC** (District Heating and Cooling) and **PVPS** (Photovoltaic Power Systems)

Potential for further collaborations with:

EBC (Energy in Buildings and Communities), **IETS** (Industrial Energy-Related Technologies and Systems), **Geothermal**, **ISGAN** (Smart Grids) and **IEAGHG** (CCS R&D)