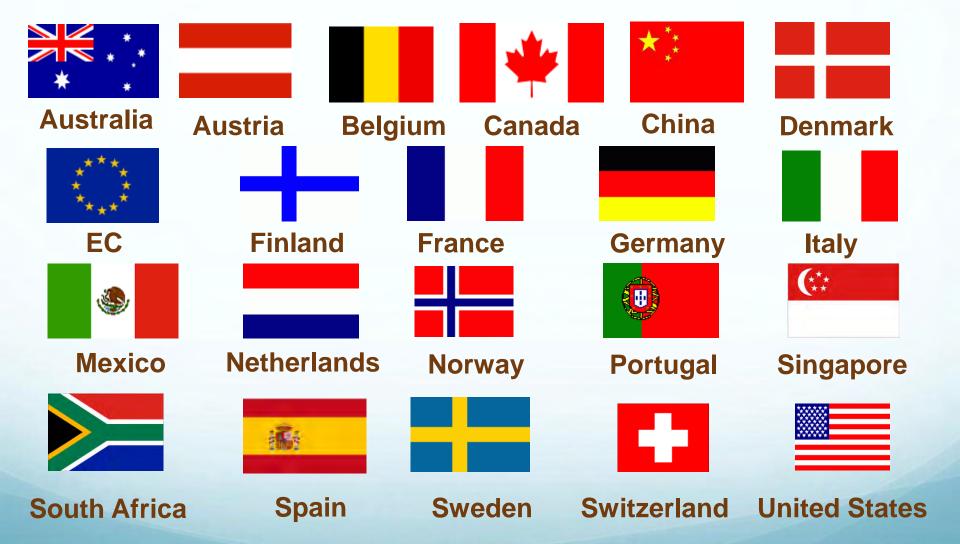


SOLAR HEATING & COOLING PROGRAMME



IEA SHC - Member Countries



	2009	2010	2011	2012	2013	2014
Task 39 Polymeric Materials for Solar Thermal Applications (Germany)						
Task 40 Net Zero Energy Solar Buildings (Canada)						
Task 41 Solar Energy and Architecture (Denmark, Norway, Sweden)					1	
Task 42 Compact Thermal Energy Storage (Netherlands)						
Task 43 Rating and Certification Procedures (Denmark, US)					1	
Task 44 Solar and Heat Pump Systems (Switzerland)						
Task 45 Large Solar Heating/Cooling Systems (Denmark)						
Task 46 Solar Resource Assessment and Forecasting (United States)						
Task 47 Solar Renovation of Non- Residential Buildings (Norway)						

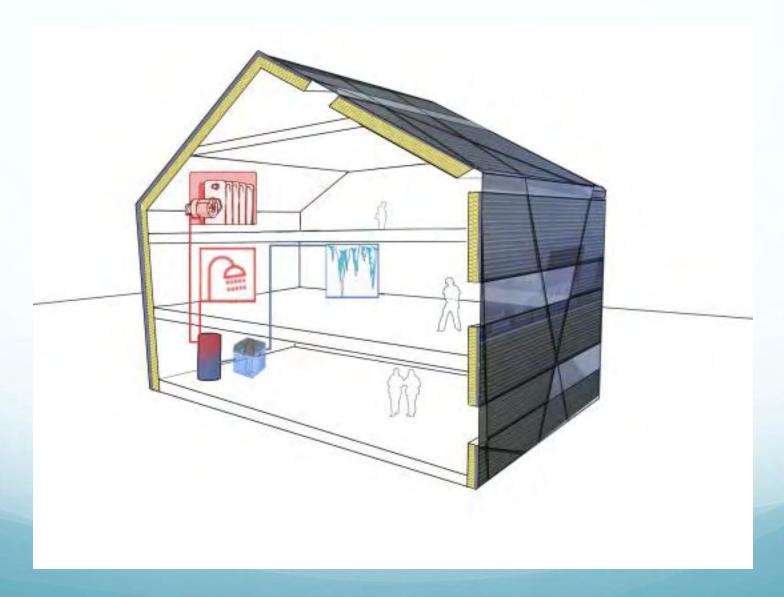
	2011	2012	2013	2014	2015	2016
Task 48 Quality Assurance and Support Measures for Solar Cooling Systems (France)						
Task 49 Solar Heat Integration in Industrial Processes (Austria)						
Task 50 Advanced Lighting Solutions for Retrofitting Buildings (Germany)						l
Task 51 Solar Energy and Urban Planning (Sweden)						
Task Definition: Solar Thermal & Energy Economics in Urban Environments						
www.iea-shc.org						



Distributed Energy Storage Systems

Compact Thermal Energy Storage Task 42/24





Large Solar Heating and Cooling Systems – Task 45



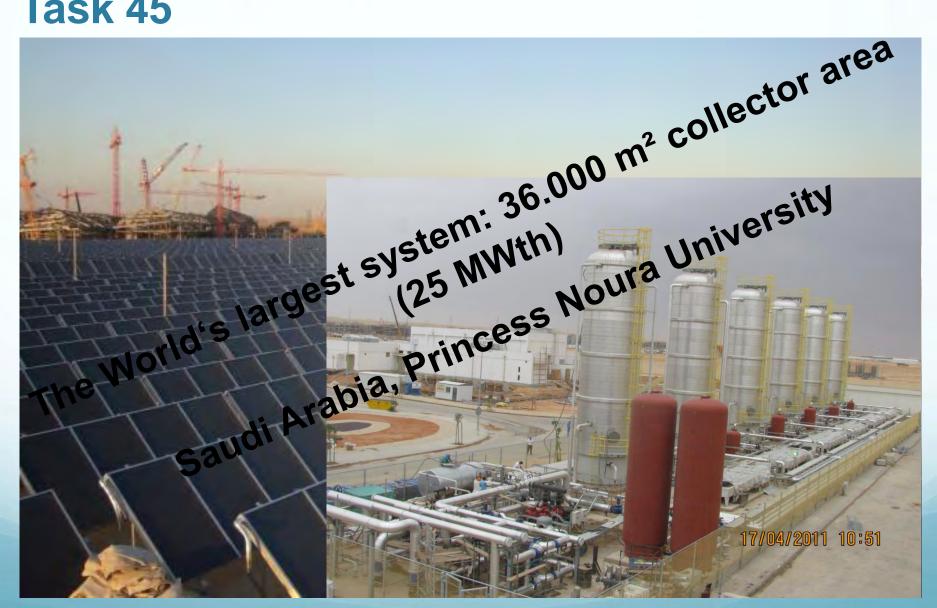
Integration of large-scale solar thermal systems into:

- Local district heating
- Urban district heating



Large Solar Heating/Cooling Systems Task 45

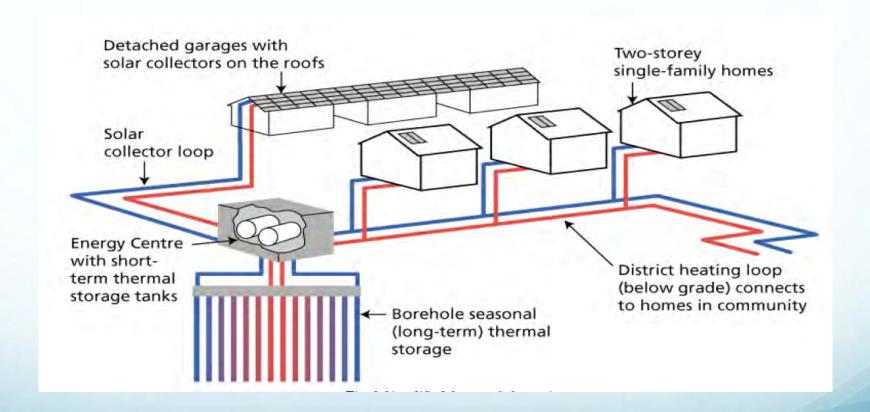




Drake Landing Solar Community, Canada



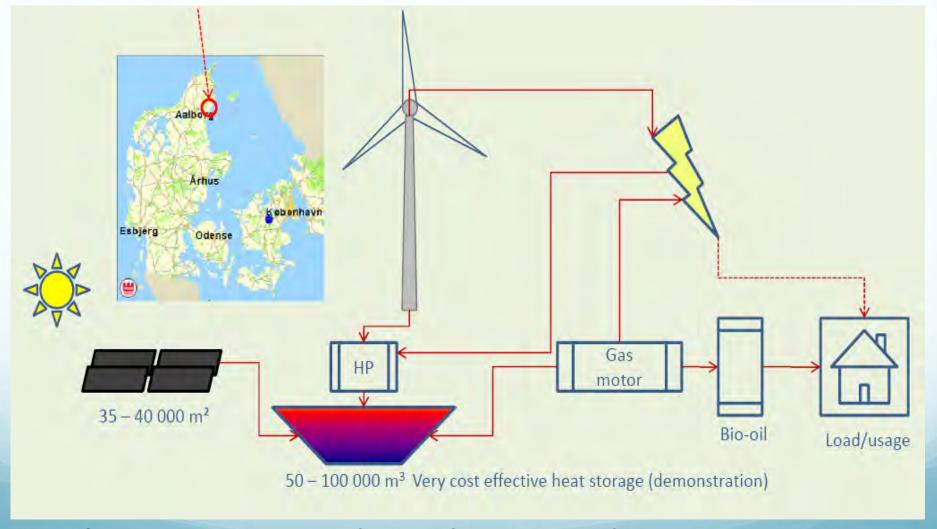
Drake Landing Solar Community, Canada



Source: CanmetENERGY, Ottawa

Smart District Heating SystemsIntegration of heat and electrical grids



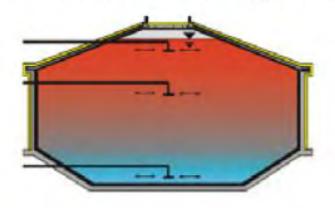


Source: Jan-Erik Nielsen, PlanEnergi, Cost source: SDH, Report "success factors in district heating, Dec 2010

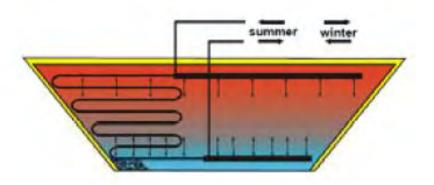
Different types of seasonal storages



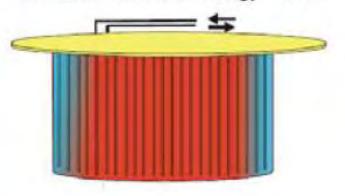
Hot-water thermal energy store



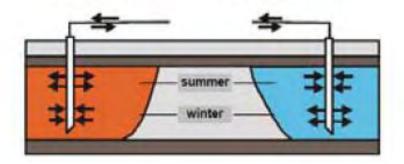
Gravel-water thermal energy store



Borehole thermal energy store



Aquifer thermal energy store



Source: ITW, Stuttgart University

Integration of industrial process heat





Thank You

