

International Energy Agency (IEA)
Solar Heating and Cooling (SHC)
Technology Collaboration Programme (TCP)

UK 2019 Solar Academy: Solar Heat Networks



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About the event

Over the next three years, the UK Government Department for Business, Energy and Industrial Strategy (BEIS) are investing £320m of capital funding into heat networks via the Heat Networks Investment Project (HNIP). Heat networks have the potential to substantially contribute to the UK's ambition to decarbonise heat, however only if the source of heat for the network is low carbon.

One of the most effective ways of decarbonising a heat network is to use solar heat and we invited to the UK two National Experts from the IEA SHC Task 55 (Towards the Integration of Large SHC Systems into District Heating and Cooling (DHC) Networks) to speak on Solar Heat Networks. They were Jan Erik Nielsen from the renewable energy planning specialist PlanEnergi (Denmark) and Christian Holter from the solar engineering company SOLID (Austria). We also invited three UK experts to speak: Grant Feasey from the solar collector manufacturing company AES Solar; Renaldi Renaldi from Newcastle University; and Edmund Papworth from the small-scale heat network company, Minus 7.

The details of the Solar Academy event were as follows:

- Title: Solar Heat Networks: Policy, Planning, Design and Performance
- Time: Friday 8th March 2019 09:30–17:00
- Location: Department for Business, Energy and Industrial Strategy (BEIS) Conference Centre, London

A copy of the agenda can be found on page 3. The following topics were discussed:

- Introduction to Solar Heat Networks
- Integration of Solar into Heat Networks
- Integration of Seasonal Heat Storage into Heat Networks
- ESCO Models and System Performance

Response

The response to the 2019 UK Solar Academy was extremely positive, with the maximum number of 50 delegates registering. The workshop provided an opportunity to bring together various stakeholders involved in the implementation of heat networks, to discuss how solar heat can be used to affordably reduce the carbon emissions of both existing and new heat networks. This was well-received by delegates, with the lunch and coffee break providing valuable opportunities for further discussion and networking.

A companion website was developed and published after the event, which provided delegates access to the presentations and further information about the IEA SHC and Task 55. A selection of photographs from the even can be found on pages 4 to 9.

International Energy Agency (IEA) Solar Heating and Cooling (SHC) Technology Collaboration Programme (TCP)

Solar Heat Networks: Policy, Planning, Design and Performance

Friday 8th March 2019

Department for Business, Energy and Industrial Strategy (BEIS) Conference Centre

Start Time	Item	Speaker
09:30	Light Breakfast	
10:00	Welcome and Introductions	Oliver Sutton, BEIS
10:15	Introduction to Solar Heat Networks	Richard Hall, Vice Chair IEA SHC
10:25	Development of Solar Heat Networks in Austria: Background and Status	Christian Holter, SOLID
10:45	Development of Solar Heat Networks in Denmark: Background and Status	Jan Erik Nielsen, PlanEnergi
11:15	Coffee and Networking Session	
11:30	Integration of Solar onto Heat Networks	Christian Holter, SOLID
12:30	Solar Heat Networks Workshop	IEA SHC International Team
12:45	Lunch	
13:45	Adding Seasonal Heat Storage to Heat Networks	Jan Erik Nielsen, PlanEnergi
14:25	Micro Solar Heat Networks in the UK	Edmund Papworth, Minus 7
14:40	Solar Heat Networks Workshop	IEA SHC International Team
15:00	Coffee and Networking Session	
15:15	ESCo models – Energy Performance Contracts	Christian Holter, SOLID
15:40	Evaluation of the Performance of Large Collector Fields	Jan Erik Nielsen, PlanEnergi
15:55	Techno-economic analysis of a solar district heating system in the UK, Drake Landing Solar Community (DLSC)	Renaldi, Newcastle University
16:05	UK Considerations for Solar Collector Field Design and Component Selection	Grant Feasey, AES Solar
16:25	Closing remarks and Handing Out of Certificates	Richard Hall, Vice Chair IEA SHC
16:30	Networking Opportunity	

Event Photo Gallery

Introduction to the workshop by Oliver Sutton from BEIS



Presentation by Christian Holter from SOLID



Presentation by Jan Erik Nielsen from PlanEnergi



Jan Erik Nielsen from PlanEnergi and Christian Holter from SOLID taking questions from the delegates



Presentation by Grant Feasey from AES Solar



Lunch was provided for the delegates by the BEIS catering team



Presentation by Edmund Papworth from Minus 7



Delegates were provided with an event programme printed on 100% renewable material



Presentation by Jan Erik Nielsen from PlanEnergi



Presentation by Renaldi Renaldi from Newcastle University



The workshop presenters



Discussion during the networking session at the end of the workshop

