

# 2012 ANNUAL CONFERENCE ON RENEWABLE HEATING AND COOLING

26-27 April 2012, Copenhagen (Denmark)



with the support of





## Teaming up

# for renewable heating and cooling

**O**ur well-being and industrial future depend on clean, reliable and affordable energy. Europe must focus its efforts on reaching sustainability in both heat generation and heat distribution, since nearly 50% of the total energy consumed annually in the EU is used for this purpose. Decarbonising the heating and cooling sector is a challenging policy objective due to the large number of individual decision-makers and also to the fact that the industry is diverse and fragmented.

Scientific evidence shows that biomass, solar thermal, geothermal and aerothermal sources have a huge potential to satisfy heating and cooling demands in the EU. District heating and cooling is a key technology towards phasing out the direct use of fossil fuels for heating purposes in urban areas, allowing the implementation of a holistic approach to various types of energy needs, and sustainable heat sources.

Complex challenges require integrated solutions. Therefore, the **European Technology Platform on Renewable Heating and Cooling (RHC-Platform)** and **Euroheat & Power**, the international association representing the District Heating and Cooling sector in Europe are joining forces and organising the **2012 Conference on Renewable Heating and Cooling**.

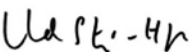
The joint Annual Conference of the RHC-Platform and Euroheat & Power takes place in Copenhagen on 26 – 27 April 2012. Denmark is the perfect host for this high-level conference, as it selected green growth as one of the top priorities of its current EU Presidency.

The event will provide a unique opportunity for industry executives, leading researchers and senior officials from the EU, national and local administrations to engage in effective dialogue. A first class panel of speakers will explore the very latest trends and developments in renewable heating and cooling technologies, addressing both district energy networks and small-scale energy solutions. A wide range of topics will also be broached, including EU funding priorities for research, development and innovation, market outlook, large scale integration of renewable heating and cooling in the European Smart Cities and Communities Initiative.

“Our future energy”, Denmark’s new energy strategy sets the target of achieving 100% renewable energy supply for heating by 2035. This Danish plan shows not only the way towards achieving independence from fossil fuels and significantly reducing greenhouse gas emissions, but it also describes how the transition to a truly sustainable society is possible while simultaneously improving Danish companies’ competitiveness. Euroheat & Power and the European Technology Platform on Renewable Heating and Cooling are keen to put the spotlight on this new Danish strategy as a source of inspiration for future EU energy policy.

We look forward to meeting you at the 2012 joint Conference in Copenhagen and discussing with you the role of renewable heating and cooling technologies and district heating as the driving force behind the paradigm shift in our energy system based on the new European strategic research agenda for renewable heating and cooling. Please join us and get inspired by the promising outlook for renewable heating and cooling.

Yours sincerely,



**Gerhard Striy-Hipp**  
President of the European  
Technology Platform on  
Renewable Heating & Cooling






**Birger Lauersen**  
President of Euroheat & Power

# Programme at a glance

## Thursday 26 April

Thursday 26 April	
09:00-10:00	Welcome Coffee/Registration
10:00-11:00	Opening Session
11:00-12:30	Plenary Session: Decarbonising the heating and cooling markets
12:30-13:30	Lunch
Parallel sessions on renewable energy sources for heating and cooling	
13:30-15:00	A: Solar Thermal      B: Geothermal      C: Biomass
15:00-15:30	Coffee break
Parallel sessions on integrating sustainable district heating and cooling	
15:30-17:00	D: Technical issues      E: Business models      F: Urban planning
17:00-18:00	Panel debate: Outcome of the day and reports of the six session chairs
19:30	Evening Reception

-  Amalienborg + Fredensborg
-  Marseliesborg + Schackenborg
-  Kronborg + Rosenborg

# Programme at a glance

## Friday 27 April

Friday 27 April			
08:30-09:00	Welcome Coffee/Registration		
09:00-10:30	Parallel session G: <b>Sustainable Cooling</b>		Parallel session J: <b>Thermal Energy Storage</b>
10:30-11:00	Coffee break		
11:00-12:30	Parallel session I: <b>Raising Awareness and Acceptance</b>		Parallel session J: <b>Hybrid Systems &amp; Heat Pumps</b>
12:30-13:30	Closing Session		
13:30-14:30	Lunch		
14:00-15:00	EHP General Assembly (for EHP members only)		
14:45-16:00 15:30-16:45	Technical visit: <b>Copenhagen Energy</b>	14:45-16:15	Technical visit: <b>The Green Lighthouse</b>

- Amalienborg + Fredensborg
- Marselisborg + Schackenborg
- Kronborg + Rosenberg

# Programme overview

## Thursday 26 April

Thursday, 26 April 2012		Room name
08:30 - 17:00	<b>Registration</b>	Foyer
09:00 - 10:00	<b>Welcome coffee</b>	Foyer
10:00 - 11:00	<b>Opening Session</b>	
	<ul style="list-style-type: none"> <li>Gerhard Stryi-Hipp, President, RHC-Platform</li> <li>Birger Lauersen, President, Euroheat &amp; Power</li> <li>Frank Jensen, Mayor of Copenhagen</li> </ul>	Amalienborg + Fredensborg + Schackenborg
11:00 - 12:30	<b>Decarbonising the European heating and cooling markets</b>	
	<p><b>Moderator:</b></p> <ul style="list-style-type: none"> <li>Fiona Harvey, The Guardian</li> </ul> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>José Riesgo Villanueva European Commission, DG Energy</li> <li>Henrik Lund Aalborg University</li> <li>Wolfram Sparber Vice-President, RHC-Platform</li> <li>Frederic Hug Vice-President, Euroheat &amp; Power</li> <li>Frank Hansen VELUX Group</li> <li>Paul Voss Danfoss District Energy</li> <li>Anca-Diana Barbu European Environment Agency</li> </ul>	Amalienborg + Fredensborg + Schackenborg
12:30 - 13:30	<b>Lunch</b>	Foyer
13:30 - 15:00	<b>Parallel sessions on renewable heating and cooling sources</b>	
13:30 - 15:00	<p>Moderation: Xavier Noyon, ESTIF</p> <p><b>Solar thermal markets: On track for 2020?</b></p> <ul style="list-style-type: none"> <li>Robin Welling, TISUN</li> </ul> <p><b>Research priorities for solar thermal energy (Strategic Research Agenda)</b></p> <ul style="list-style-type: none"> <li>Wim Van Helden, Renewable Heat</li> </ul> <p><b>Cost reduction along the value chain: which perspective in the research and product development?</b></p> <ul style="list-style-type: none"> <li>Bernd Hafner, Viessmann Werke</li> </ul> <p><b>Energy labelling: Incentive or challenge for product development?</b></p> <ul style="list-style-type: none"> <li>Christian Stadler, General Solar Systems</li> </ul> <p><b>Latest and future developments in solar District Heating</b></p> <ul style="list-style-type: none"> <li>Riccardo Battisti, Ambiente Italia</li> </ul> <p><b>Discussion</b></p>	Amalienborg + Fredensborg

Thursday, 26 April 2012		Room name
13:30 – 15:00 <b>Session B: Geothermal Technology</b>	<p>Moderation: Pierre Ungemach, GPC IP</p> <p><b>Recent market developments in geothermal heating &amp; cooling</b></p> <ul style="list-style-type: none"> <li>· Burkhard Sanner, EGEC</li> </ul> <p><b>Geothermal Strategic Research Priorities</b></p> <ul style="list-style-type: none"> <li>· Javier Urchuegua, GEOPLAT</li> </ul> <p><b>Latest and future developments in geothermal District Heating</b></p> <ul style="list-style-type: none"> <li>· Christian Boissavy, AFPG</li> </ul> <p><b>Geothermal District Heating and Cooling in Vienna</b></p> <ul style="list-style-type: none"> <li>· Aarno Rapottnig, Fernwärme Wien</li> </ul> <p><b>Discussion</b></p>	Marseliesborg + Schackenborg
13:30 – 15:00 <b>Session C: Biomass Technology</b>	<p>Moderation: Kari Mutka, VAPO</p> <p><b>Market developments and innovation</b></p> <ul style="list-style-type: none"> <li>· Lara Mertens, AEBIOM</li> </ul> <p><b>Domestic heating</b></p> <ul style="list-style-type: none"> <li>· Walter Haslinger, Bioenergy 2020+</li> </ul> <p><b>Innovation in straw burning</b></p> <ul style="list-style-type: none"> <li>· Rudolph Blum, DONG Energy</li> </ul> <p><b>Experiences and solutions of biomass and waste co-firing</b></p> <ul style="list-style-type: none"> <li>· Pasi Vainikka, VTT</li> </ul> <p><b>Combining liquid and solid biomass: The Ginko eco-district in Bordeaux</b></p> <ul style="list-style-type: none"> <li>· Thierry Rami, Cofely</li> </ul> <p><b>Discussion</b></p>	Kronborg + Rosenberg
15:00 – 15:30	<b>Coffee break offered by Kamstrup</b>	Foyer
15:30 – 17:00	<b>Parallel sessions on integration of sustainable district heating and cooling</b>	
15:30 – 17:00 <b>Session D: Technical issues</b>	<p>Moderation: Örne-Ly Reidla, Estonian Power and Heat Association</p> <p><b>Lower temperatures, new heat sources: Next generation District Heating systems</b></p> <ul style="list-style-type: none"> <li>· Patrick Lauenburg, Lund University</li> </ul> <p><b>Low-temperature case-studies</b></p> <ul style="list-style-type: none"> <li>· Robin Wiltshire, BRE</li> </ul> <p><b>New built and refurbishment with DHC in the Mediterranean context</b></p> <ul style="list-style-type: none"> <li>· Christoph Peters, Sabaté and Associates</li> </ul> <p><b>The SECTOR project: Production of Solid Sustainable Energy Carriers from Biomass by Means of Torrefaction</b></p> <ul style="list-style-type: none"> <li>· Kathrin Bienert, Deutsches Biomasse Forschungsinstitut</li> </ul> <p><b>Discussion</b></p>	Amalienborg + Fredensborg

# Programme overview

## Thursday 26 April

Thursday, 26 April 2012		Room name
15:30 – 17:00 <b>Session E: Business Models</b>	<p>Moderation: Klaas de Jong, Essent</p> <p><b>Tools for new and improved business models in District Heating and Cooling</b></p> <ul style="list-style-type: none"> <li>Anders Sandoff, Gothenburg School of Economics</li> </ul> <p><b>The economy of supplying low-energy districts</b></p> <ul style="list-style-type: none"> <li>Lena Gunnarsson, Fortum Värme</li> </ul> <p><b>Development of an innovative business model for large-scale solar thermal plants for industrial and commercial companies</b></p> <ul style="list-style-type: none"> <li>Christian Holter, SOLID</li> </ul> <p><b>The RESILIENT Project: Renewable, Storage and ICT, for Low carbon Intelligent Energy management at district level</b></p> <ul style="list-style-type: none"> <li>Peter Verboven, VITO</li> </ul> <p><b>Discussion</b></p>	Marselisborg + Schackenborg
15:30 – 17:00 <b>Session F: Urban Planning</b>	<p>Moderation: Lorenzo Spadoni, A2A</p> <p><b>Future sustainable cities through backcasting modeling</b></p> <ul style="list-style-type: none"> <li>Louise Trygg, Linköpings University</li> <li>Göran Broman, Blekinge Institute of Technology</li> </ul> <p><b>European hot spots</b></p> <ul style="list-style-type: none"> <li>Sven Werner, Halmstad University</li> </ul> <p><b>Success stories throughout Europe</b></p> <ul style="list-style-type: none"> <li>Else Bernsen, COWI</li> </ul> <p><b>UP-RES: Renewable Energy Skills for Urban Planners</b></p> <ul style="list-style-type: none"> <li>Lewis Knight, Building Research Establishment</li> </ul> <p><b>Discussion</b></p>	Kronborg + Rosenberg
17:00 – 18:00	<b>Panel Discussion: outcome of the day and report of the six parallel session moderators</b>	
	<p>Moderation: Burkhard Sanner, President, EGEC</p> <p><b>Solar thermal Technology</b></p> <ul style="list-style-type: none"> <li>Xavier Noyon, ESTIF</li> </ul> <p><b>Geothermal Technology</b></p> <ul style="list-style-type: none"> <li>Pierre Ungemach, GPC IP</li> </ul> <p><b>Biomass Technology</b></p> <ul style="list-style-type: none"> <li>Kari Mutka, VAPO</li> </ul> <p><b>Technical Issues</b></p> <ul style="list-style-type: none"> <li>Õnne-Ly Reidla, Estonian Power and Heat Association</li> </ul> <p><b>Business Models</b></p> <ul style="list-style-type: none"> <li>Klaas de Jong, Essent</li> </ul> <p><b>Urban Planning</b></p> <ul style="list-style-type: none"> <li>Lorenzo Spadoni, A2A</li> </ul>	Amalienborg + Fredensborg
19:30	<b>Evening reception</b>	
	<ul style="list-style-type: none"> <li>Martin Lidegaard, Danish Minister for Climate, Energy and Building, Danish Presidency of the EU</li> </ul>	CPH Conference Building @ DGI Byen



# Programme overview

## Friday 27 April

Friday, 27 April 2012		Room name
08:30	<b>Registration</b>	Foyer
08:30 – 09:00	<b>Welcome coffee</b>	Foyer
09:00 – 10:30	<b>Parallel sessions</b>	
09:00 – 10:30 <b>Session G: Sustainable Cooling</b>	<p>Moderation: Bertrand Martin, Cofely Spain</p> <p><b>District cooling as central element of an intelligent city</b></p> <ul style="list-style-type: none"> <li>Ulf Hedin, City of VAXJO, Member of the City Council and of the Executive Committee</li> </ul> <p><b>Free cooling – why, how and where...</b></p> <ul style="list-style-type: none"> <li>Pär Dalin, Capital Cooling Holding AB</li> <li>Rob Thornton, IDEA</li> </ul> <p><b>Technological solutions and advantages of combining sorption cooling with a district heating network or cogeneration units</b></p> <ul style="list-style-type: none"> <li>Uli Jakob, Green Chillers</li> </ul> <p><b>Technological developments and market perspectives for renewable energy cooling systems</b></p> <ul style="list-style-type: none"> <li>Ursula Eicker, Center of Applied Research Sustainable Energy Technologies (zaft.net)</li> </ul> <p><b>Discussion</b></p>	Amalienborg + Fredensborg
09:00 – 10:30 <b>Session H: Thermal Energy Storage</b>	<p>Moderation: Wim van Helden, Renewable Heat</p> <p><b>Strategic and research priorities for thermal energy storage</b></p> <ul style="list-style-type: none"> <li>Luisa F. Cabeza, University of Lleida</li> </ul> <p><b>Phase Change Material (PCM) based energy storage and examples of global applications</b></p> <ul style="list-style-type: none"> <li>Zafer Ure, Phase Change Material Products Limited</li> </ul> <p><b>Underground Thermal Energy Storage: advancements and applications in DHC networks</b></p> <ul style="list-style-type: none"> <li>Coen Dijkhoorn, IF Technology</li> </ul> <p><b>Storing renewable energy in DHC</b></p> <ul style="list-style-type: none"> <li>Marko Riipinen, Helsinki Energy</li> </ul> <p><b>Discussion</b></p>	Kronborg + Rosenborg
10:30 – 11:00	<b>Coffee break</b>	Foyer
11:00 – 12:30	<b>Parallel sessions</b>	
11:00 – 12:30 <b>Session I: Raising Awareness and Acceptance</b>	<p>Moderation: Gunnar Boye Olesen, INFORSE-Europe</p> <p><b>Low-carbon, but not only: future energy systems for social housing</b></p> <ul style="list-style-type: none"> <li>Claire Roumet, CECODHAS</li> </ul> <p><b>Ecoheat4cities or how to get credit for delivering green heat</b></p> <ul style="list-style-type: none"> <li>Ingo Weidlich, AGFW</li> </ul> <p><b>Install+RES: installers' qualification as a tool to raise awareness and ensure quality</b></p> <ul style="list-style-type: none"> <li>Silvia Caneva, WIP</li> </ul> <p><b>The city of projects: Community, energy provider and citizens as partners in sustainable urban development</b></p> <ul style="list-style-type: none"> <li>Bernd Tenberg, Jung Stadtkonzepte</li> </ul> <p><b>Discussion</b></p>	Amalienborg + Fredensborg

# Programme overview

## Friday 27 April

Friday, 27 April 2012		Room name
11:00 – 12:30 <b>Session J: Hybrid Systems and Heat Pumps</b>	<p>Moderation: Thomas Nowak, EHPA</p> <p><b>Strategic and research priorities for hybrid systems</b></p> <ul style="list-style-type: none"><li>· Wolfram Sparber, EURAC</li></ul> <p><b>Strategic and research priorities for heat pumps</b></p> <ul style="list-style-type: none"><li>· Monica Axell, SP</li></ul> <p><b>From research to market: innovative solution and control systems</b></p> <ul style="list-style-type: none"><li>· Klaus Kattenhøj, GRUNDFOS</li></ul> <p><b>Large scale hybrid renewable energy systems: the concept of smart district heating</b></p> <ul style="list-style-type: none"><li>· Bertrand Guillemot, Dalkia</li></ul> <p><b>Discussion</b></p>	Kronborg + Rosenborg
12:30 – 13:30	<b>Closing Session</b>	
	<p><b>Global view on renewable heating and cooling</b></p> <ul style="list-style-type: none"><li>· Milou Beerepoort International Energy Agency</li></ul> <p><b>The Smart Cities Stakeholder Platform: Focus on Energy Supply</b></p> <ul style="list-style-type: none"><li>· Sytze Dijkstra, ECN</li></ul> <p><b>Closing remarks</b></p> <ul style="list-style-type: none"><li>· Steen Gade, Chair of the Danish Parliament's Climate, Energy and Building Committee</li><li>· Gerhard Stryi-Hipp, President, RHC-Platform</li><li>· Birger Lauersen, President, Euroheat &amp; Power</li></ul>	Amalienborg + Fredensborg
13:30 – 14:30	<b>Lunch</b>	Foyer
14:00 – 15:00	<b>Euroheat &amp; Power General Assembly</b> (open to EHP members only)	Kronborg + Rosenborg

### Technical Visits

#### The Green Lighthouse

The Green Lighthouse is Denmark's first public CO<sub>2</sub> neutral building, it has been built in less than a year in a close public/private partnership and has been endorsed by the European Commission's Sustainable Energy Europe Campaign as an Official Partner. Green Lighthouse is a completely new experiment, with thermal energy supply being a combination of district heating, heat pumps and solar heating and cooling coupled with seasonal storage. The energy concept maximises the exploitation of renewable sources of energy. This interaction means that the sun is used not only for cooling during summertime, but also to improve the efficiency of the heat pump during winter.

14:45 – 16:15

**Departure from the conference venue at 14.45 sharp**

#### District Cooling system Copenhagen

The relatively new District Cooling system of Copenhagen Energy Ltd. supplies its customer in the Kongens Nytorv area since March 2010 with efficient and sustainable cooling. Its production is based on three different sources: Free (renewable) cooling from seawater, absorption cooling based on waste heat and High efficient compressor chillers. By connecting customers to the District Cooling system, it was possible to reduce by 67% their CO<sub>2</sub> emissions for cooling purposes. The site visit will give you an opportunity to explore the 20 MW Cooling central at Kongens Nytorv.

Group 1

14:45 – 16:00

Group 1

**Departure from the conference venue at 14.45 sharp**

Group 2

15:30 – 16:45

Group 2

**Departure from the conference venue at 15.30 sharp**

To join the technical visits, please check at the registration desk for remaining places.

# Conference venue

The 2012 Conference on Renewable Heating and Cooling will take place at:  
 Scandic Copenhagen, Vester Soegade 6, 1601 Copenhagen  
 Tel: +45 33 14 35 35 · Fax: +45 33 32 12 23 · Website: www.scandichotels.com



- |                    |                    |                            |
|--------------------|--------------------|----------------------------|
| 1 Euroheat & Power | 8 THERMAFLEX Intl. | 11 Brugg Pipesystems       |
| 2 RHC-Platform     | 9 Kamstrup         | 12 Danfoss District Energy |
| 7 LOGSTOR          | 10 Ramboll         | 13 COWI                    |
|                    |                    | 15 Media table             |

# Evening reception

All conference delegates, speakers, moderators and members of the press are invited to join us for a cocktail reception on the 26 April 2012 at 19:30. The evening event will provide the ideal informal pre-dinner networking opportunity.

On behalf of the Danish Presidency of the European Union, the reception will be opened by Mr. Martin Lidegaard, Danish Minister for Climate, Energy and Building. The event will take place at CPH Conference Building @ DGI Byen, Kvægtorvgade, 1704 Copenhagen V, Denmark



## Media Partners

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## About the organisers

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**Euroheat & Power** is the international association representing the District Heating and Cooling (DHC) sector in Europe and beyond, covering all aspects related to District Heating and District Cooling and related energy sources and technologies including combined heat and power (CHP). With a view to ensure continued growth of the sector, the purposes of Euroheat & Power are Advocacy, Image building, Technology development. Euroheat & Power unites 23 national CHP/DHC associations and has individual members (utilities, equipment suppliers and research institutes) in more than 32 countries.

For more information please visit [www.euroheat.org](http://www.euroheat.org)

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### **The RHC-Platform – European Technology Platform on Renewable Heating & Cooling**

Since 2008 all major European stakeholders from the biomass, geothermal and solar thermal sectors – including the related cross-cutting industries – have come together in the European Technology Platform on Renewable Heating & Cooling (RHC-Platform) to define a common strategy for increasing the use of renewable energy technologies for heating and cooling. Grouping over 600 stakeholders from industry, research and civil society, the RHC-Platform is set to play a key role to define the European energy research agenda and to meet the EU's 20-20-20 energy targets. The RHC-Platform is an initiative endorsed and financially supported by the European Commission under FP7 and its Secretariat is coordinated by EUREC Agency and managed in collaboration with AEBIOM, EGEN and ESTIF.

For more information please visit [www.rhc-platform.org](http://www.rhc-platform.org)

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## Disclaimer

This publication is was produced in the context of the activities of the European Technology Platform for Renewable Heating and Cooling (RHC-Platform). The Secretariat of the RHC-Platform is financially supported by the European Commission through the 7<sup>th</sup> Framework Programme for Research and Development.



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**Learn more at:** [www.conference2012.eu](http://www.conference2012.eu)