



District Heating Fact Finding Mission to Denmark for Energy Cities members 12-14 September 2016



Monday 12/09/2016

Arrival to Copenhagen

Check in at Hotel Cabin Scandinavia near Forum

Evening on your own

Tuesday 13/09/2016

VISITE, PRESENTATION
ET DISCUSSION AUTOUR DE :

08.00 Departure Hotel by bus (40min)

09.00 (TBC)



Energistyrelsen

Meeting with Danish Energy Agency

Introduction to planning, legislation and the development of district heating in Denmark. Introduction to the role of different organisations and stakeholders.
Focus on the regulatory framework for developing district heating and cooling in Denmark.

Ole Odgaard, Special Advisor, Danish Energy Agency
Venue: Roskilde Municipality

10.00



ROSKILDE
KOMMUNE

Rådhusbuen 1
4000 Roskilde.

The Municipality of Roskilde

Looking into the role of municipalities in Denmark both today and in the future on district heating.

Introduction to a project called Olielandsbyer – Oil villages. This project is an energy transition project helping the villages to change from individual heating (often oil based) to collective district heating.

- Planning and development of district heating in a municipality
- How to inform and motivate the citizen to connect to the DH grid
- Future plans for expanding district heating – project Oil Villages

Søren Magnussen and Jesper Madvig, Energy Planners, Roskilde Municipality

Departure by bus 11.30 (50 min) – Sandwich and a drink in the bus

12.30

Site visit at Helsingør Fjernvarme

Helsingør Fjernvarme new solar panel installation has now been in operation for almost a year. The first solar installation of 4,733m² has been in operation since mid-May 2012. With the expansion of the solar panel installation, its total surface area is equivalent to

- Introduction to the district heating company with a special focus on the solar panels and the storage solution.
- Discussion on economy and technology



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 Helsing Fjernvarme A.m.b.a. Skovgårdsvej 4 A 3200 Helsingø	19,588m ² . The total annual production is expected to be approximately 9,400MWh or about 20% of the annual heat production to Helsing Fjernvarme's 1,600 consumers.	Leif Jakobsen, Daily manager, Helsing Fjernvarme Expert participation from Danish side: <ul style="list-style-type: none"> • Knud Erik Nielsen, Sales Director Arcon Solar, who has provided the solar panels
Departure by bus 14.00 (45min)		
15.00 – 18.00	Danish - French District Heating Exchange Seminar, network and presentations See below for separate program	Venue: DBDH
Enjoy a short rest at the hotel, check your emails, join in for a pint or ? Find your way to the restaurant		
19.00	Dinner Membres d'Energy Cities français et danois, utilities danoises, representants d'entreprises danoises du secteur, institutionnels et organisations	Madklubben Vesterbro Vesterbrogade 62 1620 København V



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Seminar and Networking - Detailed Programme – Tuesday afternoon

Moderator: Lars Hummelose, Managing Director, DBDH

15.00	Welcome to seminar Blandine Pidoux., Energy Cities and Lars Hummelose, DBDH
15:05	<i>“Etat des lieux et perspectives des réseaux de chaleur en France - (Status and prospects of heating networks in France)”</i> Michel CAIREY-REMONNAY, Coordinateur Fonds Chaleur, ADEME
15.25	<i>“Projet de développement des réseaux de chaleur - Récupération de l'énergie fatale du centre de valorisation énergétique d'Halluin”</i> Erwan LEMARCHAND, Energy departement director, Lille Metropole
15.42	City 2
16.00	Intro to French and Danish participants , Lars Hummelose, DBDH
16.10	Coffee break
	Results and case stories from Denmark
16.30	<ul style="list-style-type: none"> • <i>“Smart Meters for allocation of heat for multi-family house Danish / French case”</i> Laurent LEFAY, Products and Innovations marketing manager, ISTA
16.42	<ul style="list-style-type: none"> • <i>“Energy modelling with energyPRO - results and lessons learnt from progRESs HEAT project”</i> Sara Ben Amer, PhD Candidate Technical University of Denmark
16.54	<ul style="list-style-type: none"> • <i>“Titel TBC”</i> Kamstrup
17.06	<ul style="list-style-type: none"> • <i>“The optimization potential of heating networks in France for better efficiency.”,</i> Alain Lintz, Managing director, Logstor France
17.18	<ul style="list-style-type: none"> • <i>“Experience with Low Temperature DH in Denmark”</i> Jan Eric Thorsen, Danfoss
17.30	Networking

EMBASSY OF DENMARK



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18:00	End of Seminar and Networking	
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Wednesday 14/09/2016	VISITE, PRESENTATION ET DISCUSSION AUTOUR DE :	
08.15 Deapure from hotel by bus (30 min)		
<p>09.00</p>  <p>Malervej 7 2630 Taastrup</p>	<p>District Cooling in Høje Tåstrup Hoeje Taastrup Fjernvarme is committed to deliver 2 MW cooling for Copenhagen Market. The 2 MW is produced by standard cooling machines which runs on electricity. In connection with the production there will be created a by-product, heat. This heat, approx. 16 degrees Centigrade, runs through 2 heat pumps to provide 73 degrees into our district heating network.</p>	<ul style="list-style-type: none"> Introduction to the planning, development and economy of the future district cooling system. <p>Uffe Schleiss, Project and Daily Manager, Høje Tåstrup Fjernvarme</p>
10.15 Deapure by bus (10 min)		
<p>10.30</p>  <p>Roskildevej 175 2620 Albertslund</p>	<p>Visit to VEKS Vestegnens Kraftvarmeselskab I/S, also known as VEKS, is a transmission company supplying heat to 19 local district heating companies at Vestegnen. The local district heating companies then resell the heat to private consumers, business customers and institutions. VEKS was established in 1984 with the aim of utilizing surplus heat generated from combined heat and power (CHP) plants as well as from waste incineration plants and major industrial enterprises. Utilizing surplus heat under the VEKS system means much lower fuel consumption. Køge CHP plant is a decentralized plant - commissioned in 1986. Since VEKS took over Køge CHP in 2012 a conversion / renovation work started. Production capacity at Køge CHP are two wood-fired boilers using biomass as a fuel, for example wood chips, dust,</p>	<ul style="list-style-type: none"> Introduction to the Greater Copenhagen Distrct Heating Transimission company - VEKS. Introduction to the biomass plant in Køge and it's integration into the Copenhagen system. Introduction to Copenhagen Geothermal Plant. <p>Morten Stobbe, Deputy Director, VEKS</p> <p>Expert participation from Danish side:</p> <ul style="list-style-type: none"> <i>“Industrialisation – the key to successful geothermal energy”</i> Erwan Bourdon, Directeur International, CFG Services <i>“Titel”</i>



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	<p>sawdust and olive stones. Until the end of 2013 the heat was only used as process steam for Køge biopellet factory and Junckers Industrier. Today a district heating system are being build in Køge that provides low cost heat to a large number of local building.</p> <p>Introduction to Amager Geothermal Plant – a plant co-owned by the 3 transmission companies in Copenhagen.</p>	Brunata
12.15 Departure by bus (4 min)		
<p>12.30</p> <p>ALBERTSLUND FORSYNING</p> <p>Vognporten 9 2620 Albertslund</p>	<p>Albertslund District Heating Case: Conversion of existing buildings into low temperature district heating in Albertslund.</p> <p>In Albertslund (a suburb of Copenhagen built in the 1960s), a large renovation programme is underway. The aim is to totally renovate all dwellings and the project includes the replacement of the old district heating system. The new system is designed to run with a flow temperature of just 55°C and a return of 30°C. Phase 1 started in 2013 and includes, in total, 544 dwellings (completion in 2015). Work is planned so that residents can move in upon completion, and the first residents have moved into their renovated dwellings.</p> <p>Visit to energy-renovated home!</p>	<ul style="list-style-type: none"> • Focus on low temperature network. • Conversion of existing buildings • Visit to private energy renovated home <p>Wisam El-Khatib, Energy Advisor, MSc Energy-Engineering, MSc Christian Oxenvad, Energy Advisor, Architect MAA Albertslund District Heating</p> <p>Visit includes a lunch</p>
14.15 Departure by bus (18min)		
<p>14.30</p> <p>VESTFORBRÆNDING</p>	<p>Site visit at Vestforbrænding Vestforbrænding is Denmark's largest waste management company. Each year Vestforbrænding handles around 1 million tonnes of waste of which 70 % is recycled, 25 % goes to energy recovery through incineration and 5 % goes to special treatment</p>	<ul style="list-style-type: none"> • Demonstration of a solution integrating waste treatment and energy optimization. <p>Per Wulff, Managing director, Vestforbrænding</p>



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<p>Ejby Mosevej 219 2600 Glostrup</p>	<p>(including landfill). Our focus is on the resource value of the waste – whether it is materials for recycling or fuel for energy production. 330 employees service a total of around 900,000 people – this is one sixth of Denmark's population. In addition we service around 60,000 businesses.</p> <p>In addition to solving waste management challenges Vestforbrænding operates six recycling centres and the largest incineration plant of Denmark, generating both power and district heat.</p>	
<p>16.00 Departure by bus to Airport (21min) – Return to France</p>		
<p>18.00 End of program</p>		