

Minutes of Meeting – Focus Group District Cooling

Meeting no: 2 / 2014

Date: 19. March 2014 at 10.00-12.00

Location: Dantaet, Odense

Participants:

Martin B. Petersen, ABB (MBP)
 Tage Laurup, Dantaet (TL)
 Jens Peter Truelsen, Frederiksberg Forsyning (JPT)
 Mie Arildsen, Frederiksberg Forsyning (MA)
 Per Trøjbo, Kamstrup (PT)
 Tarek El Barky, Rambøll (TEB)
 Morten Abildgaard, Viborg Fjernvarme (MA)
 Oddgeir Gudmundsson, Danfoss (OG)
 Rudi Bjerregaard, Høje Taastrup Fjernvarme (RB)
 Jan Strømvig, Fjernvarme Fyn (JS)
 Rasmus B. Eriksen, Dansk Fjernvarme (RBE)
 Lars Hummelose, DBDH (LH)
 Ricky Bjørkvig, DBDH (RIB)

Excused

Erik Werner Keis, Helsingør Forsyning
 Anders Nielsen, Grundfos

Minutes taken by

Lars Hummelose, DBDH

Introduction	Action
<u>Comments to Minutes of meeting # 1:</u> No comments Welcome and intro to Dantaet / Tage Laurup	

Presentation of Ramboll report to the Danish Energy Authority (Energistyrelsen) on market potential for District Cooling in Denmark	Action
The report has not been published yet, however the highlight conclusions are: <ul style="list-style-type: none"> - 2,2 GW DC potential out of the total cooling market potential which is 5 GW (40% DC coverage) - Sweden today has a coverage of 25% DC - Technologies for DC: Primarily heat pumps (lowest CO2) and to a limited extent ; absorption cooling. Free cooling is 2nd priority compared to heat recovery from heat pumps. - Legislative barriers: Choice of technology should not be limited only to compression cooling, however should be open towards all applicable technologies (also facilitating the technical and energy-effective solution). 	

<ul style="list-style-type: none"> - Barriers identified by the utilities: Based on questionnaire answers from utilities, the identified main barriers are financing, legislation, choice of technology and lack of detailed info about DC. - DH and DC operating in co-generation (utilizing the technical synergies) = economical beneficial, however not possible today, due to legislative barriers. 	
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General discussions	Action
<p><u>Jan Strømvig:</u> How to finance piping? Solution can be to integrate the regulation of DH with DC. DC can be regulated in the same way as biogas is regulated in the heat law.</p> <p><u>Rudi Bierregaard:</u> Need to change the rules of depreciation. Have had dialogue of financing from Nykredit and Nordea. They want to have guarantee in the DH-activities = not possible with the current legislation – e.g. financing is a huge barrier.</p> <p><u>Is DC a risk for DH customers (if merging the legislation)?:</u> For the utilities, at present when investing in expansion or new production facilities, a risk is already introduced to the DH customers.</p> <p>In the future it is expected that up to 30-45% of the DH will be produced by heat pumps. By co-producing cooling on the same heat pumps, it is possible to share costs and risks, and utilizing the identified synergies for a common benefit for consumers (customers) on both systems.</p> <p>•</p>	

Activities/Actions	Action
- Elaboration of a brief paper (pixi for politicians), reflecting the utility opinion on the barriers	LH/RBE
- As heat pumps are envisaged to constitute 30-45% of the DH-heat production, a brief paper (pixi for politicians) should be elaborated to highlight the synergies of merging DH and DC-production on these heat pumps.	TEB/RBE
- Schedule a meeting with Danish Energy Authority to discuss the Ramboll report	LH
- Establishing a task force to dialogue with politicians consisting of the utility representatives	JS, JA, JPS, MA
- Arranging a DC seminar together with Dansk Fjernvarme, Horten, PWC and Ramboll. Focus on future business opportunities, Heat Pumps and DC	LH,RBE, TEB
- Invite political spokespersons + minister from the energy committee to the opening of Frederiksberg Fjernkøling and have a seminar on DC potential and barriers together with the opening	LH/MA

- 1 export promotion with focus on DC? – To be decided on next meeting.	
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Next meetings	Action
- 5 th May at Odense Fjernvarme	LH
- Invite Horten and PWC	LH