



RESCUE: Developing District Cooling in EU 27

Info corner

RESCUE project update

More workshops in interested cities have been realized in the last few months. The feedback from the workshops and the expertise of the consortium proved invaluable for the project.

RESCUE REPORTS

Reports on

- The Support Package Tool List,
- District Cooling and the Customers' Alternative Cost,
- The EU District Cooling Market and Trends,
- Environmental Factors from a Cooling Perspective and
- District Cooling Customer Measurement Analysis

have all been published and can be downloaded on the project website www.rescue-project.eu.

PROJECT MEETING IN HELSINKI

Following the RESCUE project meeting in Stockholm, Sweden, the RESCUE project partners visited Helsinki, Finland for the next project meeting and visited one of the production plants of Helsinki CHC (combined heat and cooling) -system. In Helsinki, high-efficient District Heating has long roots in heating up the city. In the past 10 years, District Cooling has joined the system.

In Helsinki, District Cooling and Heating

networks are connected in a unique way. The over 250 buildings connected to District Cooling are used for collecting the excess heat from the sun by heating up the cold water provided by the flow line of the cooling network. The heated water (16°C) is distributed back through the return line and by using the Katri Vala heat pump station is refined to heat used for District Heating (80°C). Even though the growth of the network has been very rapid in the past ten years the District Cooling business still has a large growth potential. In Helsinki, customers are demanding more energy efficient solutions, with high reliability. Investments in building up the CHC-system have been extensive, but still purely business based. These investments are made for a long-term horizon, which means that the system will be utilized and developed for many decades from now on.

RESCUE CITY WORKSHOPS

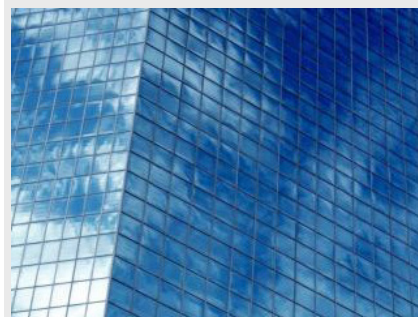
In this issue you can read summaries of more RESCUE workshops in Woking and Zagreb.

Energy tunnel in Helsinki



KEY PROJECT FIGURES

- 30 month project duration
- EU27, 10 focus countries
- 8 actors involved



VISIT OUR WEBSITE

All the findings of the project, including good case practice studies are published on the project's website

www.rescue-project.eu



Woking workshop

WOKING—THAMESWEY ENERGY SERVICE COMPANY

Thameswey Energy Ltd which wants to establish District Energy systems in Woking is a wholly owned subsidiary of the Woking Borough Council. Thameswey has owned and operated several District Energy schemes since 1990. Thameswey as a very experienced developer and operator of local government owned energy systems freely shared their experiences and the lessons learned from past investments during the workshop.

BATH & NORTH EAST SOMERSET AND LONDON

The Bath & North East Somerset Council are very interested in extending their current plans regarding District Heating systems to also include District Cooling. Their main challenge going forward is to built on their current studies of District Energy options and to move on to preparing solid business cases. This next step is very dependent on funding, and the Bath &



North East Somerset Council have applied for funding offered by the Department for Energy and Climate Change to assist Local Authorities in England and Wales to develop new heating and cooling networks.

The Greater London Authority has developed a heat map for the London area with assistance from the [European Investment Bank's ELENA facility](#). This is an essential first step in scoping and planning District Energy networks. A number of heat networks already exist and continue to be established more recently based on Combined Heat and Power. There is only one District Cooling system called Citigen, which was established in 1993. Even though several isolated District Heating networks exist in the

London area, District Cooling was never investigated in detail.

Zagreb workshop

THE CHALLENGES IN ZAGREB

HEP, which is the largest District Heating company in Croatia is interested in developing a District Cooling scheme based on its current steam capacity used in absorption chillers. With the industrial decline there is still a lot of spare capacity that could be used for the base load. Many public buildings, such as museums and historical buildings could serve as anchor customers for this base load.

HEP is a state-owned company and therefore it will be crucial to convince local municipality owners of the benefits of supporting District Cooling development. The fund for en-

ergy efficiency and environmental protection could perhaps be used as a tool to stimulate the interest in District Cooling.



Upcoming events

EVEN MORE WORKSHOPS

A second workshop will be held in Genoa, Italy, scheduled for spring 2014.

There will also be a second workshop associated with Wok-

ing, United Kingdom, which will be held in Bath, another city interested in District Cooling, in relative vicinity to Woking.

More general workshops aimed at stakeholders from different regions will be held in Germany.



Helsinki District Cooling scheme

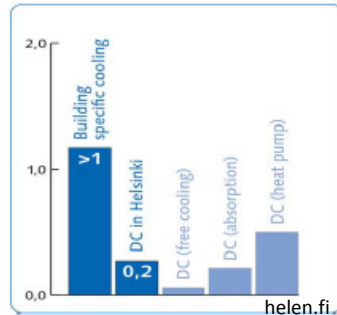
HELSINKI CHC SCHEME

A study tour of the Helsinki CHC system was organized by the local system operator, Helsinki Energy.

ADVANTAGES OF THE CHC SCHEME

The overall energy efficiency of District Cooling in Helsinki is approximately five times better than building specific cooling systems when comparing the ratio between net primary energy supply and cooling energy demand in a building during one year. In addition to that, District Heating based on RES is produced as a side product of District Cooling. Because of the low use of primary energy, District Cooling emits 80 % less CO₂ and other greenhouse gases compared to building spe-

Primary energy consumption of different cooling solutions



cific cooling systems in Helsinki. It is estimated that the connected District Cooling load in Helsinki will be about 250 MW_{th} in 2020. It will reduce yearly fossil fuel supply by about 300 GWh compared to alternative cooling solutions. This equals 25 million litres of oil. The yearly CO₂ emissions will be reduced by about 100 000 tons. This equals CO₂ emissions associated with 700 million kilometres of car driving. The environmental benefits are not limited to energy efficiency and CO₂ though. Harmful refrigerants are avoided in the buildings and CFC-compounds are not needed. In addition, large investments for the electricity production and distribution capacity are avoided. Lastly, there is no noise related to District Cooling at the customer's premises and therefore the city is more comfortable for its people.

Apply for technical support now!

Stakeholders, selected on the basis of their interest and commitment, will benefit from direct technical guidance when participating in the RESCUE project.

BENEFITS OF LINKING TO RESCUE

- Receive early access to the information and training material.
- Test and use the support package which will provide sufficient indication on the potential viability of District Cooling (for instance as a potential measure in a municipality's Sustainable Energy Action Plan [SEAP] or sustainable development strategy).
- Obtain general recommendations on the legislative, technical and economic framework necessary to evolve District Cooling further.

STEPS YOU CAN TAKE TO LINK TO RESCUE

Let us know if you have a District Cooling scheme, are busy exploring District Cooling options or are purely interested in District Cooling as a topic.

If you wish to apply for technical support through RESCUE (limited numbers!), please send us a request to link to the project. Stakeholders need to commit to: Participating in workshops with local stakeholders, share news on District Cooling developments and give feedback to the consortium.

INTERESTED? PLEASE CONTACT

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