

# ENGLISH SUMMARY OF CONTENTS

## PROFESSION Technique

### Recommendations related to the implementation of absorption chillers water-lithium bromide

> by Patrick Milliot-Charpentier

Recommendations related to the implementation of absorption chillers water-lithium bromide for different applications and under various climatic conditions. p 9

## PROFESSION Roundtable

### Transfer of knowledge and know-how within a company

Jean Balas (Balas Company), Michel Lefèvre (Math Ingenierie), Philippe Nocturne (Collard and Trollart Thermique), Olivier Rouland (CCCA-BTP) and Thomas Salvant (Iosis Bâtiments) met together on 15 February at the AICVF office to discuss how it is important to save up knowledge and organization within a company and to pass them on. p 12

## Dossier I

### HQE (High quality environmental building) and BBC (Low energy consumption building) Buildings: Feedback

> coordinated by Irène Arditi and José Naveteur  
For several years a lot of articles have been published concerning buildings claimed as BBC. We thought that to obtain some experience feedback after running one or two years would have been interesting, informative and certainly easy to do. Unfortunately, it has not been the case. Despite all our contacts, it seems that after the communication phase, few of them are subject to an energy consumption follow-up. Is the comparison between forecast and real taboo? p 17

### A successful refurbishment in term of low energy consumption in Franche-Comté

> by Jean-Christophe Léonard, Philippe Pedrocchi, Pascal Valladont, Gérard Courgey, and Daniel Bouscavet

Transform and refurbish a school in office building with the heating, ventilation and air-conditioning consuming less than 45 kWh/m<sup>2</sup> shon.year is possible. EDF R&D monitored this particularly high performance installation. p 17

### Energy efficiency the school Jean-Louis Marqueeze: a forerunner building

> by Philippe Lebeau and Jean-Pascal Delonne  
In November 2007, the city of Limeil-Brevannes inaugurated the first French school certified HQE. EDF R&D monitored the energy consumption follow-up of the building. Results. p 20

### Experience feedback - Refurbishment of an existing building

> by José Naveteur, Gennaro Castagna, André Pouget and Laurent Guedon

In 2006 Pouget Consultants started the refurbishment of an existing building. Excellent energy performance values were reached validated by the readings of control and analyses devices. Feedback of this refurbishment, figures included. p 22

## Dossier II

### District heating: Energy from renewable source and recovery

> coordinated by Marie-Laure Falque-Masset and Franck Bénassis

Ambitious targets of the Grenelle of the environment, in term of energy, are going to have an important effect on the growth of the district heating. First, it increases the level of interest for such system due to the possibility to develop renewable energy sources and recovery. District heating and cooling in one hand gives optimal value to the geothermal sources, biomass and heat recovery systems (process, UIOM) and in another gives to the local authorities the opportunity to seize the energy stakes till the final consumer. p 25

### Renewable energy - District heating, a versatile energy tool

> by Didier Lenoir

District heating, often unknown by the local or national politicians, is a versatile energy tool; it allows local development, creates local jobs, and gives added value for the future and is environment-friendly. Explanations. p 25

### Modelling of district heating

> by Jérôme Mathieu

In order to improve the value of the district heating on a technical and economical point of view, numerous thermal dynamic modelling tools are available. A knowledge that allows numerous projects to come to life. p 26

### Overview - District heating based on wood: conditions and future developments

> by Serge Defaye

District heating based on wood have an important role to play in order to reach the national targets of increasing the renewable heating. Nevertheless, to develop such system is often complex and heavy and needs a good understanding of the conditions (juridical frame, technical and economical optimization) in which each project should be defined. p 30

### Recommendations - "All wood" the limits

> by Olivier Manteau

District heating is back. Nevertheless the start of the real project with all the constraints is a long road that only the ones that have examined all the faces could take without much problems. Explanations. p 35

### Renewable energy - District heating becomes "green"

> by Jean-Marc Solari

Real tool in the frame of the environmental policy and energy efficiency of the cities, district heating with renewable energy and heat recovery has an unprecedented growth. Dalkia, subsidiary company of Veolia Environnement and EDF, supports their customers towards green district heating. p 36

### City of Melun: Geothermic for 40 years

The STHAL Company (Société thermique de l'Almont) manages a geothermal district heating which feeds over 6000 equivalent housing located on the North of Melun. First geothermal district heating in France 40 years ago, it succeeds in ensuring its continued existence year after year. Something the community is proud of.

### City of Cergy Pontoise: The wood as energy in the heart of the Île-de-France

The European biggest wood central heating plant is located in Cergy Pontoise. This new heating plant feeds mainly the network with green heat.

### Experience feedback - District heating and cooling in Monaco

> by Christian Philipon

District heating and cooling remains one of the best way to carry the energy from combustible or energy difficult to handle which is the case of numerous renewable energy or recovery (biomass, waste, geothermic). This kind of energy network is preferable when it comes to equip new areas or district. It tends to limit the peaks of the electric public network. p 39

### Renewable cooling and heating in an ecological area in Barcelona

> by Philippe Larzilliere

On the site of the Universal Cultural Forum held in 2004 and on surrounding areas the city of Barcelona applied solutions in line with its policy to develop sustainable energy. That is why this new district has been equipped with a district cooling and heating, pioneer idea for Spain. p 42

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## DOSSIER I

### Bâtiments HQE et BBC: retours d'expérience

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