Project

SEasonal PErformance factor and MOnitoring for heat pump systems in the building sector (SEPEMOM-Build)

Contract No.:
IEE/08/776/SI2.529222

Event report Sheet Heat pump efficiency - determination and dissemination of relevant data, Milano 2012-05-07
Work Package 6
Dissemination

Supported by

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Event date: 2012-05-07
Event location: Palazzo Stellini, Milan, Italy
Event title: Heat pump efficiency - determination and dissemination of relevant data

Tape of event:
- Seminar: X
- Exhibition: □
- Workshop: □
- Information Meeting: □
- Conference: □

Promotion (How did you invite participants?)
- Mailing: X
- Press Releases: X
- Phone Calls: □
- Advertising: X

Number of Participants: 23
Target group(s):
- Manufacturers: X
- End users: □
- Policy makers: □

Abstract of the discussions:
In conjunction with the EHPA annual assembly and heat pump forum, SEPEMO launched an event targeting manufacturers. The aim of the workshop was to present ideas about continuous monitoring equipment in heat pumps in order to deploy massive field data collection, proving the performance of heat pumps.
Mr. Riviere from ARMINES showed some lessons learned to make efficiency measurement more cost efficient, especially for A2A HP’s.
Mr Bangheri from Heliotherm presented their monitoring system that is already installed in their heat pump units. He said that expectations of high SPF could be partially misunderstood.
by consumers, since different hydronic applications result in different SPF’s. However, benefits consist of transparency for customers, and faster improving learning curve for manufacturers. Mr Nordman said that verification of performance of products in real conditions are important, as well as the enhanced knowledge of real user patterns which can be used by industry for extraction of tuning parameters. This gives the manufacturers a better understanding of the interaction product – installation (SYSTEM PERFORMANCE).

Mr. Laurentin from AFPAC presented some views on the new French QGPAC that was started to

- Regain the trust of the clients
- Secure the branch
- Respond to the expectations of the authorities
- Prepare the future

The « Qualité Globale PAC » approach is based on a commercial approach, structured by the set up of contractual and actionable documents, a state of the art installation, delivered to the client with all the documentation and guidelines necessary, a maintenance contract, and a performance guarantee coupled to insurance.

Mr. Wagener from the DHPA told about the increasing interest in the Netherlands about performance guarantees, and the increasing importance monitored results then have to set the conditions between EPC’s and the end users.

Mr Miara concluded that field monitoring are essential to contribute to

- Thorough and independent investigation of real efficiency is important source for lawmakers, producers and consumers
- The heat pumps market can be improved thank to indication of mistakes and ways to avoid them
- Monitoring of the whole heating system enables to identify problems connected not only to the heat pump itself
- The credibility of the technology increases through transparency and reliability of outcomes

It was concluded that some manufacturers already have built monitoring equipment that can be used to monitor the SPF according to the SEPEMO SPF_H2 or SPF_H3 boundary, but that this is more on the exclusive products range. By lowered component process, and an accurate prediction of the value this may have, and in conjunction with the concept of smart heat pumps in smart grids, built in monitoring equipment may be more and more common. It should be possible for end users to integrate those monitoring signals into an overall building control system.
# ATTENDANCE LIST

<table>
<thead>
<tr>
<th>#</th>
<th>First name</th>
<th>Last name</th>
<th>Organization</th>
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<tbody>
<tr>
<td>1</td>
<td>Marencom</td>
<td>Reger</td>
<td>SP Technical Research Institute of Sweden</td>
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<td>2</td>
<td>Jan</td>
<td>Lhoest</td>
<td>Flemish Heat Pump Association</td>
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<td>3</td>
<td>Christian</td>
<td>Karl</td>
<td>Ochman Värmepumpen GmbH</td>
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<td>4</td>
<td>Marco</td>
<td>Grisot</td>
<td>Clivet SPA</td>
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<td>Roberto</td>
<td>Ottaviani</td>
<td>HIDROS S.P.A.</td>
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<td>6</td>
<td>Paolo</td>
<td>Cami</td>
<td>Hitachi air conditioning europe sas</td>
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<td>7</td>
<td>Manuel</td>
<td>Brat</td>
<td>Climaveneta</td>
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<td>8</td>
<td>Marcello</td>
<td>Aprie</td>
<td>Politecnico di Milano</td>
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<td>9</td>
<td>Dina</td>
<td>Koepke</td>
<td>Emerson Climate Technologies</td>
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<td>Svend</td>
<td>Pedersen</td>
<td>Danish Technological Institute</td>
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<td>12</td>
<td>Peter</td>
<td>Wegener</td>
<td>Dutch Heat Pump Association</td>
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<td>Henrik</td>
<td>Bjerregaard</td>
<td>Danfoss Heat Pumps</td>
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<td>Alberto</td>
<td>Spotti</td>
<td>COAER</td>
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<td>Josè Mº</td>
<td>Ortiz</td>
<td>AFEC</td>
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<td>Josef</td>
<td>Slovakik</td>
<td>Czech head pump association</td>
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<td>Stefan</td>
<td>Vanderstraeten</td>
<td>Dakin Europe NV</td>
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<td>18</td>
<td>Philippe</td>
<td>Riviere</td>
<td>Center of Energy and Processes, Armines / Mines-PansTech</td>
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<td>19</td>
<td>Antonio</td>
<td>Galante</td>
<td>Toshiba Italia Multiclima div. ECR Italy Spa</td>
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<td>20</td>
<td>Thomas</td>
<td>Nowak</td>
<td>European Heat Pump Association</td>
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Programme 7.5.2012

Heat pump efficiency: determination and dissemination of relevant data

10:00 What can industry learn from field measurements?
Roger Nordman (SEPIMO, SP)

10:10 Performance guarantees as a new tool in marketing heat pumps
Peter Wagener (Dutch HPA tbc)

10:20 Performance is improving: Experience from field tests
Marek Miara (Fraunhofer ISE)

10:30 Information for the masses: making unit performance visible for the end-consumer I Andreas Bangheri (Heliotherm)

10:40 Brush-up your heat pump: lessons learned to make efficiency measurement more cost efficient
Philippe Riviere (Mines-Paristech)

11:00 Is industry ready for informed consumers?
Panel discussion
• Mr. Roger Nordman (SP)
• Mr. Marek Miara, Fraunhofer ISE)
• Mr. Peter Wagener (Dutch HPA tbc)
• Mr. Andreas Bangheri (Heliotherm)
• Mr. Philippe Riviere (Mines-Paristech)

11:45 end
The EHPA will organize its annual conference the next day (8.5.2012)

Please confirm your participation and register yourself at:

If you need further information, please do not hesitate to contact Ms. Bernadett Nagy (bernadett.nagy@ehpa.org).

Location
Palazzo Stelline, C.so Magenta, 61 - 20123 Milano (Italy)

We look forward to welcome you!