

EHPA focus for 2003

Rayner Mayer, Chair's report

The Chair describes some of the issues raised at the recent Executive meeting and the actions that will follow.

The contribution of heat pump systems towards mitigating climate change is considerable - sales in 2001 will result in annual energy savings of 3 - 4 TWh. If sales can be maintained at this level then annual savings for the period 2001 to 2010 will be about 20 million tons of carbon dioxide, or about 5% of the EU's Kyoto commitment. Of course, some of these sales are for reversible systems, which are primarily used for cooling in the summer.

The EHPA exists to develop the market for heat pump heating and cooling systems in Europe. So as part of our marketing strategy we affirmed that we would pursue two specific objectives, namely labelling and the education and training of installers.

The DACH label is already widely used in Switzerland, Austria and Germany and is a voluntary labelling scheme that ensures a minimum level of performance, reliability and eco-friendliness. Whilst this label can be extended to include other countries, our long-term goal is to seek European recognition via the EU eco-label and EU energy labelling schemes.

The award of these labels will recognise the ability of specific heat pump systems to save both energy and the environment as indicated above.

Heat pumps differ from other systems in their need to access a source of low-grade heat and to be optimally sized for the appropriate heat loss. As the new Energy Performance in Buildings directive sets out, the optimum heating system may also involve adding insulation to dwellings to reduce the heat loss. An internationally recognised training programme will greatly help in establishing a sustainable heat pump market. Two new members accepted at our last Executive meeting were the component manufacturer Copeland and AREA, the Air Conditioning and Refrigeration European Association, which unites European installers. Air conditioners, which are reversible and concentrate heat from the air, can also be classified as heat pumps. Such cooperation will help us to develop the market by virtue of their expertise and knowledge.

We were also happy to welcome a new associate member from Eastern Europe, Vasil Kolikovski, who is based in Sofia and runs Geosolar, a company developing heating systems for Bulgaria.

Source: European Heat Pump News, Issue 4/3, December 2002

Heat Pump Best Practice (HPBP)

At a meeting on 8 November 2002 in Brussels the Strategy Committee of the EHPA agreed to a new Heat Pump Best Practice (HPBP) initiative designed to demonstrate the benefits of heat pumps with respect to primary energy saving and CO₂ emission reduction, and to encourage their introduction into the European market.

The aims of this initiative are

- to gather and compile information available on heat pump related best practice from databases, Internet, projects, Flyers, reports, etc.
- to analyse and evaluate this information, make recommendations for successful heat pump application, and disseminate appropriate information to targeted groups.

As EHPA Webmaster, FIZ Karlsruhe has included this new item on the European Heat Pump Network Website (<http://www.ehpn.de>)

Axel Lehmann, FIZ Karlsruhe

Source: European Heat Pump News, Issue 4/3, December 2002

Education and Training Committee in the EHPA

After years of work promoting the quality of heat pump units (e.g. within the DACH label) Austria and a number of other countries have introduced a comprehensive training programme for installers.

The Education and Training Committee was established in June this year, and the first meeting took place in November. Chairwoman Brigitte Bach from Arsenal Research, Austria, is looking forward to exchanging experiences and expertise with other members.

The working programme of the group will include the collection and exchange of relevant information about national training schedules, regarding contents, organisational matters, time schedules, financial matters, etc. We plan to publish the information on the EHPA website. We are also developing a common quality standard, and discussions will soon be held about defining the contents of a standard training course.

Austria, Bulgaria, Estonia, Finland, France, UK, Switzerland and Sweden are the first countries to participate in the Training and Education Committee. Further interested parties are invited to join the group. The next meeting will be organised in Vienna at the end of March.

Brigitte Bach, Arsenal research, Austria

Source: European Heat Pump News, Issue 4/3, December 2002

Climate change and renewable energy

Rayner Mayer, Chair's report

The Chairman describes the current state of climate change legislation in Brussels and the role of heat pumps systems in mitigating climate change.

The weather this summer has been one of extremes, which for some countries has meant blistering heat and for others torrential rain, often leading to severe flooding. The Vltava River in Prague rose to its highest level for 200 years and caused severe damage in the Czech Republic as well as other countries bordering the Danube and the Elbe. We extend our sympathy to those who have been affected by the flooding.

Unfortunately such extreme weather conditions are much more likely to become the norm in future as predicted by climate change models based on warming due the accumulation of greenhouse gases in the atmosphere. Apart from taking precautions to prevent rivers flooding in this way again, it is also clear that society must try to prevent climate change even more rigorously - the Kyoto targets were always envisaged as the starting point, not the end point.

Legislators in Brussels are actively discussing three initiatives that are designed to promote the use of energy in a more efficient and sustainable manner. These form part of the first phase of the EU's climate change programme. Two of these initiatives require primary legislation that is quite far advanced and concern energy performance in buildings and the provision of energy services. The third is a parallel measure to generate awareness about climate change and what individuals can do to mitigate the changes.

Heat pump systems are a renewable energy source that can be used either to concentrate low grade heat for heating or discard high grade heat for cooling and do this in a more efficient manner than any other system.

The EHPA therefore seeks to work with all stakeholders in generating awareness of the potential of the technology and developing initiatives to educate and train persons working with buildings and the associated heating and ventilation.

These matters were again discussed at the June meeting of our Executive in Stockholm and it was decided to pursue both an extension of the DACH quality labelling system and to develop the necessary educational resources.

Source: European Heat Pump News, Issue 3/3, September 2002

Market confidence in focus at annual meeting in Paris

Rayner Mayer, Chair's report

At the third annual meeting of the EHPA in Paris, Hans Nilsson discussed the history of transforming markets for new products and processes. Whilst heat pumps themselves are not new products, what is new is their efficiency in concentrating low-grade heat and their excellent reliability and maintainability.

So the procedures for transforming markets apply just as much to heat pump systems as any other new product. Information, education, training and product labelling are key aspects that are being considered by the EHPA. Our website (www.ehpa.com) and newsletter are two components of the information process at a European level, with similar information being provided at a national level.

Following the work of Michel Guittard, a new initiative has been launched by Brigitte Bach to develop common methods of training installers. An application has been submitted to this year's SAVE call for funding.

The EU has yet to label conventional heating systems and EU labelling of heat pump systems will have to wait. However, there is no reason in principle why the DACH labelling system could not be voluntarily applied in other countries (see News section of www.ehpa.org). Labelling is of greatest importance in countries where grants and subsidies are available for purchasing this sort of equipment, as customers will have confidence in the quality of the product they are purchasing.

Source: European Heat Pump News, Issue 3/2, June 2002

European Heat Pump Association 2001

Rayner Mayer, Chair's report

The EHPA's activities have concentrated on three specific issues of importance for the emerging European heat pump industry, i.e. information, labelling & climate change. These issues are of vital importance if the market for heat pump heating and heating/cooling systems is to expand.

Information exchange between members has helped those trying to establish markets most notably in Finland, the Czech Republic, France and the UK. The success of various initiatives has been discussed at EHPA meetings and described in our newsletter or web site. The growth of markets is generally determined by intervention and the following factors are important:

- financial incentives to reduce the initial or running costs for utilities or governments;
- information to enable a comparison to be made of different types of heating systems;
- trained installers.

Labelling

The EU is committed to labelling all appliances and products that consume energy. So far the scheme has focussed on white kitchen goods, with lighting; water heaters and room air conditioners to follow. The EU label has successfully transformed the market for energy efficient appliances by supplying unbiased information to consumers, retailers and installers.

Other products currently have voluntary labels and these include the energy star for office equipment and the GEA label for consumer electronics. The EU has no immediate plans to label heat pumps.

Climate change

The EHPA has been active in developing the EU's climate change programme. An initial success has been the acceptance of heat pumps as a renewable energy source within the context of the Building Energy Performance Directive currently being discussed by the European Parliament. The next item to focus on should be the proposed directive on the production of heat from renewable sources, where the contribution of heat pumps needs to be clearly recognised.

In a parallel initiative member states are introducing incentives for renewable energy sources that will help market growth. Heat pump sales have benefited from tax credits in France, from accelerated depreciation allowances in the UK and from subsidies on initial costs in the Czech Republic. Some utilities like SSE and the Czech Energy Company are also offering favourable tariffs for operating heat pumps.

Membership

The steady growth in membership is reassuring and a special welcome is extended to the newly-formed Estonian Heat Pump Association. Increased membership will strengthen our committees as well as help our finances.

Executive committee

The growth of EHPA membership means that an Executive Committee, as laid down in the constitution, should now be formed. It will have a coordinating and executive role, which has so far been assumed by the four monthly meetings of the Association.

Thematic network

Axel Lehmann has suggested that the EHPA should set up a thematic network, or network of excellence as it will be referred to, within the EU's Framework 6 programme. The great advantage of this scheme is that it will allow us to widen the scope of our work in developing the market for heat pump systems and bring EU funds into the Association and its associated partners. Much of the work we are already doing falls within the scope of this network, and now that the EHPA has an active membership and a track record the application will probably be successful.

I believe that the EHPA should formally adopt such a proposal, register its interest with the appropriate officer in DG Research and start the process of identifying suitable partners.

Challenges for the next few years

These include the following:

- voluntary labelling of heat pumps
- developing criteria for accrediting training courses at a European level
- working with government agencies, the EU and utilities to ensure recognition of the energy saving potential of heat pump systems
- helping to transfer knowledge to countries where acceptance of the technology is still low

We have made a good start, but the work of transforming the market has only just begun.

Source: European Heat Pump News, Issue 3/1, March 2002

SAVE project to start market transformation is finalised

Rayner Mayer, Sciotech, UK

The SAVE project "Transforming the market for electrical heating of residential dwellings" was finalised on 31 October 2001. The final report contains an overview of the results, and an analysis of the European heat pump market. The excerpt below gives an initial impression. The report can be obtained from Rayner Mayer, Sciotech, UK. By analysing specific growth/maturity factors we can evaluate the heat pump market in various countries and determine whether it is static or dynamic.

The following factors are considered:

1. Availability of heat pump technology refers to the presence of domestic or foreign heat pump manufacturers, agents or sales representatives who offer heat pump systems through organised and trained resellers.
2. Economic incentives consider whether it is viable or even profitable to install heat pumps

compared to other heating alternatives. Are energy prices advantageous for heat pumps or not? To be competitive the heat pump installation needs to have a payback period for the initial investment of no more than 5-7 years compared to alternative heating systems.

3. Political decisions means legislation etc. that promotes heat pumps compared to other heating systems. This can be standards or regulations controlling the maximum amount of CO₂ emissions and the maximum allowable capacity (kW) of energy (kWh) for heating, or standards for sizing the heating system to cover the heat loss of the dwelling and transitions to low temperature heating systems.
4. Trained installers *and resellers* are essential for a functioning market and continued market growth.
5. Awareness amongst end-users creates an autonomous, self-developing and ongoing market where there is a "market pull" from end users demanding a better heating alternative.
6. General acceptance among decision makers, engineers, technicians, politicians, architects, builders, housing associations, trustees, landlords, tenants and electricity supply companies. These people are the ones designing the buildings, consulting the house builders and owners and informing the public. To obtain and retain general acceptance it is also very important that the heat pumps offered on the market are tested and reliable.

Table 1: Maturity factors of the heat pump market in various European countries

Factor	AT	CZ	DE	DK	FI	FR	NL	RO	SE	SP	UK
1	3	2	2	2	2	2	2	1	3	2	1
2	2	2	2	2	2	2	1	1	3	1	1
3	2	2	2	2	1	1	3	1	2	1	1
4	3	2	2	2	2	1	2	1	3	2	1
5	3	1	1	2	2	1	2	1	3	1	1
6	2	1	1	1	1	1	1	1	2	1	1
SUM	15	10	10	11	10	8	11	6	16	8	6

Table 1 summarises the growth/maturity factors mentioned above. A factor score of 1 to 3 is given for: Austria (AT), Czech Republic (CZ), Germany (DE), Denmark (DK), Finland (FI), France (FR), Netherlands (NL), Romania (RO), Sweden (SE), Spain (SP) and the UK.

The scores show that Sweden and Austria are best prepared for widespread market penetration owing to a long tradition of heat pump technology and continuous information/ advertisement campaigns devoted to heat pumps. Long-term use of the technology has also provided feedback on benefits and time scales. A sustained demand for the technology has encouraged market players to manufacture and market the product with increasing confidence. Various authorities have recognised the technology and shaped legislation and education around the products. Countries like Finland, the Netherlands and Czech Republic have worked conscientiously to promote the product and are now experiencing powerful growth and strong market development. The UK, France, Romania and Spain have underdeveloped markets, although the Spanish market for cooling is well developed.

To achieve a sustainable market penetration for heat pump technology the six factors mentioned previously must be promoted at various stages by the relevant institutions.

Availability: Final Report, Sciotech, UK, Rayner Mayer,

Source: European Heat Pump News, Issue 2/4, December 2001

EHPA activities (12/01)

Rayner Mayer, Chair, reports

The executive of the EHPA met in Brussels on 25/26 October and was briefed on two recent European Commission initiatives. Marco Loprieno, DG Environment, described the communication from the Council on the first phase of the European Climate Change Programme. Pablo Fernando Ruiz, DG Enterprise, presented the rationale for a new approach directive designated EEE (electrical, energy and environment). This directive aims to reduce the overall environmental impact of an electrical machine or apparatus during its lifetime, by requiring a harmonised level of environmental protection.

Membership applications for Stiebel Eltron International, Alpha Innotec, HEA Trade Association and BSRIA were approved. The formation of the Estonian Heat Pump Association was welcomed and its membership application accepted.

The following definition of a heat pump was agreed following a request from the Commission for the energy performance of buildings directive:

The heat pump is a product that can upgrade low grade renewable energy (from air, water or ground) to provide space and water heating and/or extract heat, thereby providing cooling: a small amount of external energy is used to transfer heat, not create it. The role of the EHPA web site was discussed and it was agreed that the site should focus on and describe the activities of the Association in developing the European market for heat pump systems. The number of site visits was increasing steadily.

The initiative of the Czech Heat Pump Association in attracting 70 designers, architects and planners to a one-day symposium in Prague on 15 October was welcomed. This type of activity needed to be replicated in countries where the market transformation had only just begun.

Source: European Heat Pump News, Issue 2/4, December 2001

EHPA activities (09/01)

Rayner Mayer, Chair, reports

At the executive meeting in June a tribute was paid to Dieter Witwer of the Swiss Heat Pump association, who died tragically in a glider accident earlier in the month.

Robert Garwood of the Building Research Establishment was elected treasurer to replace Jean Yves Cherruault, Sciotech Projects, who had undertaken this work on a temporary basis since the association was founded. The membership application of "l'Association Confort Econature", formed to promote the use of heat pumps in the French domestic housing market, was approved.

The final draft of the EHPA's strategy policy was approved and a third technical sub-committee was formed to consider all aspects of information, education and training. Its initial task will be to consider suitable criteria for the approval of training and educational courses. The University of Harnosand in Sweden requested approval for a new course it is developing to accredit Swedish installers.

The Swiss HPA is developing a course for approving drilling contractors, which could form the basis for a European course.

The EU Climate Change Programme was reviewed and the programme was formally launched at a stakeholders meeting on 2-3 July 2001 in Brussels. This will now form the basis of the EU's ratification of the Kyoto treaty following agreement between the parties in Bonn in July. Heat pumps are cited as a core technology to replace direct electric heating.

Rayner Mayer, E-mail: rayner@sciotech.demon.co.uk

Source: European Heat Pump News, Issue 2/3, September 2001

Ongoing European standardisation relevant to heat pumps

Catherine Ducruet, EDF, France

The article presents a brief summary of current standardisation work on heat pumps. The main activities concern:

Safety of products

The IEC 665-2-40 standard "Safety of household equipment - Part 2-40: Specific requirements for electrical heat pumps, air conditioners and dehumidifiers" is currently being revised by the IEC 61 D Technical Committee, with the aim of integrating and completing the conditions of use of flammable refrigerants including a lower flammability limit and the maximum allowed charge of refrigerant.

Safety of systems

CEN TC 182 is revising the EN 378 standard "Refrigerating systems and heat pumps - Safety and environmental requirements" to ensure conformity with the European Pressure Equipment Directive. This standard comprises four parts, with Part 1 "Basic requirements, definitions, classification and selection criteria" being of particular importance as it deals with refrigerant charge limits according to the type and location of the system, occupancy of buildings and type of refrigerant (safe, flammable, toxic).

Tests of products

CEN TC 113 is revising the following current test standards for products:

- EN 255 "Air-conditioners, liquid chillers and heat pump with electrically driven compressor - Heating mode",
- EN 814 "Air-conditioners, liquid chillers and heat pump with electrically driven compressor - Refrigerating mode", and
- EN 12055 "Liquid chillers and heat pump with electrically driven compressor - Refrigerating mode - Definitions, tests and requirements".

These standards will be replaced by one standard specifying terms and definitions, test conditions for the rating and performance of air and water-cooled air conditioners, liquid chiller packages, and air-to-air, water-to-air, air-to-water and water-to-water heat pumps used for space heating and/or cooling. Parts 1 to 4 of the standard deal with tests of products at full load. Part 5 deals with tests of products at variable capacity. The standard does not apply specifically to heat pumps for sanitary hot water. A specific standard on this topic will be drawn up later, based on the current Part 4 of EN 255 "Requirements for equipment for sanitary hot water heating".

Conception and installation of systems

CEN TC 228 is working on a new standard project dealing with the "Conception and installation of heat pump heating systems". This committee has already drawn up standards for heating systems based on boilers and direct electrical heating. This new project should provide a common terminology and basic principles for the design and installation of heat pump heating systems. It should address not only the heat pump but also the heating distribution system and the heat source. *For more detail, see the article published in the European Heat Pump News Issue 2/2, June 2001.*

Energy consumption calculation

CEN TC 228 is working on the "Calculation method for the energy consumption of heating systems" project, which deals with heat pump heating systems.

Competence of personnel

The CEN TC 182 is also drawing up a draft standard prEN 13313 "Refrigerating systems and heat pumps - Competence of personnel", which establishes procedures for achieving and assessing the competence of personnel who design, install, test and commission, maintain, repair and dispose of refrigerating and heating systems.

Some EHPA members are involved in the standardisation work concerning heat pump products,

systems or personnel.

Table 1: Abbreviations

IEC	International Electrotechnical Commission
CEN	European Committee for Standardisation
TC 182	Technical Committee 182 "Refrigerating systems and heat pump Safety and environment"
TC 113	Technical Committee 113 "Heat pumps and air-conditioners"
TC 228	Technical Committee 228 "Heating systems in dwellings"

More information: Catherine.Ducruet@edf.fr

Source: European Heat Pump News, Issue 2/3, September 2001

European Climate Change Program (ECCP)

Rayner Mayer, Chairman EHPA

Rayner Mayer is a member of two European Commission working groups involved with energy consumption whose final report is about to be issued.

By the time this newsletter appears, the ECCP program will have been published. It will be debated at a stakeholders meeting on 2-3 July 2001 in Brussels, to be followed by a communication from the Commission in the autumn and ratification of the Kyoto Treaty on greenhouse gas reductions. Politically this will be a major step forward because of the present US administration's intention not to sign the treaty.

The ECCP program will show that the required energy savings are possible and are cost effective even at current energy prices. Moreover, there is a set of actions that individual citizens can take that will reduce further the environmental impact of energy usage. The ECCP program will propose that the EU should commit itself to developing a more sustainable lifestyle as recognised in the Maastricht treaty.

The programme will comprise both top down measures like EU directives and regulations and bottom up measures such as public awareness and a campaign for climate change. Using energy more efficiently and increasing the use of renewable energy in the form of heat and electricity are essential elements. Heat pumps are identified as one of the key technologies for reducing the energy consumption for dwellings heated by electricity.

There are also strong technical and economic arguments for incorporating local renewable energy sources directly into buildings - for example solar water heating panels, PV arrays and heat pumps. The more energy that can be used locally, the lower the transmission and distribution losses and the lower the environmental impact.

Source: European Heat Pump News, Issue 2/2, June 2001

Activities in year 2000

Rayner Mayer, Chairman EHPA

The Chair reviews the first year's activities of the Association and looks ahead to the next decade.

The year 2000 will be regarded as the time when we realised that the era of cheap fossil fuels was ending. The substantial increase in oil and gas prices reflects the fact that demand is exceeding supply and that there is only a short period in which to develop policies and strategies that can lead to a more sustainable life style. This creates tremendous opportunities for industries with the

potential to manufacture energy efficient products such as heat pumps. Thus it is appropriate that our Association was founded in February 2000.

There have been five principal activities during the past year:

- a strategy subcommittee considering what long term strategy needs to be devised;
- a labelling subcommittee considering how to devise an energy label and quality mark for heat pumps;
- development of the EHPA website;
- production of the EHPA newsletter;
- advising the European Commission on how to mitigate the effects of climate change.

The initial membership of the Association reflects its interest as a public interest body and involves consultancies, installers, national associations and utilities. This has enabled the EHPA to provide a range of advice to interested parties. However we have to accept that knowledge about heat pumps is limited. The potential for heat pumps will only be realised if people know they exist, know where to find relevant information, and know who is able to install and maintain the installations.

The next decade will provide a real challenge to society as we try to reduce the environmental impact of energy use. This requires a bottom up approach in which consumers make rational and informed decisions about the appliances they buy and the way that energy is used to heat and cool their homes. This is particularly difficult when the current price of energy does not reflect its resource availability or environmental impact. A rational decision making process is currently difficult or impossible as neither heating nor cooling systems are consistently labelled throughout Europe, both in terms of their energy consumption and seasonal energy efficiency.

The immediate goals for our Association are therefore clear:

- to increase our membership substantially;
- to develop European labelling schemes;
- to inform and educate consumers, installers, architects and planners about heat pumps;
- to identify and work with stakeholders and other bodies interested in introducing energy efficient technology.

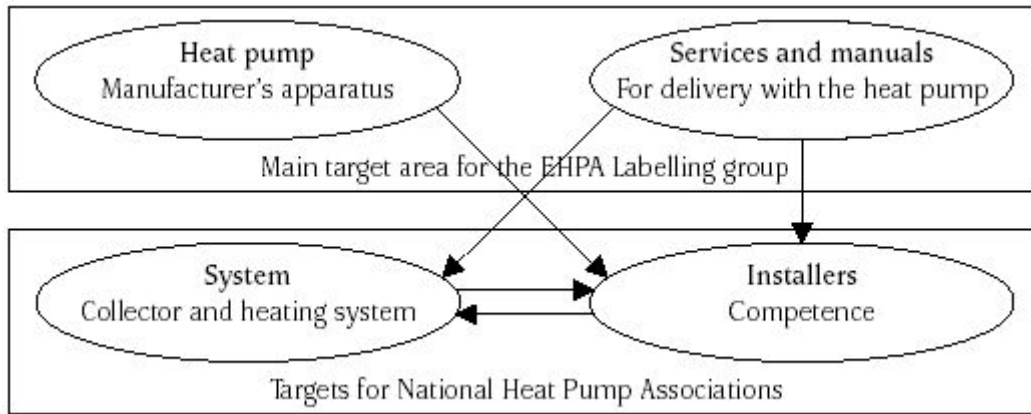
Source: European Heat Pump News, Issue 2/1, March 2001

Report from the EHPA Labelling group

Arne Lögberg, Chairman EHPA Labelling group

Labelling is a successful method of informing retailers and educating consumers about the performance and efficiency of appliances. The EU has promoted mandatory agreements for EU energy labels and minimum efficiency standards since 1992. More recently it has also negotiated voluntary agreements for minimum efficiency standards for appliances like refrigerators, freezers, and washing machines.

Following the foundation of the European Heat Pump Association in February 2000, it was unanimously agreed that an EU scheme should be piloted for residential heat pumps including units for heating only. The EHPA Labelling group was established. As Germany, Austria and Switzerland have a scheme already and product certification has been practised in Sweden and Denmark since 1980, it is now possible to pilot a similar scheme at European level. This proposal will also support an existing SAVE project concerned with the 'Certification of heat pump technologies and installers' as installers will be able to provide the consumer with a visible guarantee if they choose to install a heat pump with a quality mark.



The first meeting of the Labelling group was on the 14th December 2000 in Paris. The participants agreed on the following main targets:

- The labelling system should include testing the heat pump and valuation of services (manuals, product and system description, guarantee, spare parts etc.) for heat pump delivery to consumers or installers.
- The peripheral systems and competence of installers are quite different in each country, so it is appropriate that national organisations, e.g. national heat pump associations, should take care of the certification of these. See the figure below.

The labelling group is seeking EU support for their heat pump labelling initiatives. At the time of writing, the labelling group planned to submit a proposal to the EU by 30 March 2001.

Source: *European Heat Pump News, Issue 2/1, March 2001*

Establishing the European Heat Pump Association

Rayner Mayer and Jean-Yves Cherruault, UK

The European Heat Pump Association (EHPA) was recently established in Brussels. Its main aim is to promote the technology and develop the emerging European market. Where does it come from, how is it formed, what are its initial activities?

Background

There has been an interest in developing heat pumps in Europe for the past 100 years. The technology has developed slowly and steadily and some applications (e.g. heat recovery) have developed faster than others. However, the low price of oil for most of the past 50 years has meant cheap energy, and therefore cheap electricity.

However, when oil prices rose sharply to 40 Euro per barrel (USD40) in the early 1970s, there was a sudden rush to exploit more efficient technologies. Heat pumps were installed in large numbers, particularly for residential heating. Market trends then split between the USA and Europe.

The core meltdown in 1979 at the Three Mile Island nuclear plant in Pennsylvania, USA resulted in no further nuclear plants being completed. Consequently, American utilities offered consumers incentives to save energy, and the market for heat pumps surged to somewhere near its present level. However, in Europe the market could not be sustained as oil prices dropped back to 10 Euro per barrel by 1986. But the accident at the Chernobyl nuclear power plant, plus increasing concern about greenhouse gas emissions, has recently provided new incentives to develop the European heat pump market in a sustainable manner.

European Union and SAVE

The European Union (EU) also signed the Kyoto agreement on greenhouse gas emissions. The EU established the SAVE programme to ensure that energy efficiency would be increased. In the residential sector SAVE initially implemented a strategy for saving energy in domestic appliances

through a variety of mandatory directives and voluntary agreements. Priority was given to space and water heating.

In 1997 Sciotech carried out a study on 'Electrical heating and cooling in residential buildings', which concluded that there was a very large potential for saving electricity (in the order of 100 TWh per year) by 2020. Achieving such savings required upgrading home insulation standards to a cost-effective level: optimised-heating systems could be installed based on heat pumps. The study resulted in 22 recommendations (six specifically involving heat pump technology) to transform the market and involve all major stakeholders. The remaining 16 recommendations dealt with heating and cooling in more general terms. The study report was accepted in June 1998 and a SAVE contract to start the market transformation process was awarded in November 1998.

European Heat Pump Association (EHPA)

The Sciotech study recognised that, with a few noticeable exceptions, the industry was very fragmented, with many small manufacturers serving local markets. The industry needed to grow and concentrate on providing a full range of models for all sectors of the emerging European markets. A European Heat Pump Association was recommended to transform the European market.

Two meetings were held in Brussels, hosted by the Directorate General for Energy and Transport. The formation of the EHPA was agreed at the first meeting (mid-October 1999). Statutes were drafted and circulated for comment, and the final draft was approved at the second meeting (18 February 2000).



Figure 1 First EHPA members signed

The EHPA was formed as a European Economic Interest Group (EEIG), the only type of company allowable under European rather than national law. Full membership is open to all legally registered organisations within the EU. Organisations in other European countries can achieve associate membership. EHPA's initial membership consists of national heat pump associations, utilities, manufacturers and consultancies. Three managers have been appointed: Rayner Mayer (chair), Axel Lehmann (secretary) and Jean-Yves Cherruault (treasurer).

The work of the EHPA will be carried out in technical committees, two of which have already been formed: planning and strategy, and labelling. Other committees will follow in due course as membership increases. Close links will be sought with related organisations, some of which are located in Europe (e.g. the IEA Heat Pump Centre, Eurovent), with others in the USA.

Activities

- The EHPA, like other European organisations, will only undertake activities at a European

level, not on a national or local basis.

- FIZ, Karlsruhe will develop the EHPN website to provide information on all countries represented within the EHPA. FIZ will also provide links to national home pages.
- A four-page newsletter will appear every three months, describing current and future activities. The newsletter will be available in English and other major European languages.
- Workshops on topical themes will be organised. The first two are planned in Perth (Scotland) and Paris during autumn 2000.
- EHPA will be working with DG Energy to set meaningful targets and strategy for penetrating heat pumps into the European markets, particularly for electrically heated homes.
- EHPA will develop a European product endorsement mark for residential heat pumps, based on the DACH scheme.
- EHPA will act as a dissemination partner in EU projects involving energy efficient heating and cooling systems.

Conclusions

Concerns about environmental pollution and rising oil prices have resulted in new market opportunities for heat pumps in Europe. The EHPA will be an active participant, working together with other bodies to transform the market for energy-efficient heating and cooling systems such as heat pumps.

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Source: IEA Heat Pump Centre Newsletter, Vol. 18, No. 2, June 2000