
EUROPEAN HEAT PUMP NEWS

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EHPA NEWS

One of the objectives of setting up the European Heat Pump Association in 2000 was to disseminate knowledge from countries where large numbers of heat pumps were being installed to those where heat pumps had hardly penetrated the market. One of the most important steps is the training of competent installers with a range of specialist skills who are able to make a successful and energy efficient installation.

In 2005, more than 300,000 ground source and air to water heat pumps were installed delivering annual electricity savings of 4 TWh and contributing 0.5% of the EU 2012 Kyoto target for carbon dioxide reduction. The availability of competent installers is a key requirement if the current annual compound growth rate of 20% is to be sustained.

The 10 partners of the EU-CERT.HP project, part funded by the EU's SAVE programme, have been reviewing training programmes and competencies required for installers. They have subsequently developed a set of manuals and training materials which have been successfully trialled in each country.

In this issue activities in 4 countries are described which trialled the source material and how the project's recommendations will be implemented at national and European level.



Life Long Learning

Life long learning is much more than a 'trendy concept' of some expert in the field of education. Today every professional knows how important life long learning is to maintaining competitiveness in the labour market or boosting career prospects.

Learning can no longer be dichotomised into a time and a place to acquire knowledge – the classroom – and a time and a place to apply knowledge – the workplace. Today people are inundated with more information than they can handle and tomorrow's workers will have to know far more than any individual can retain.

The scale of current economic and social change, the rapid transition to a knowledge-based society and the demographic pressures resulting from an aging European population are all challenges that demand a new approach to education and training – an approach within the framework of life long learning. Life long learning is also about the availability of 'second chances' to update basic skills and to offer learning opportunities at more advanced levels. This means that the formal systems of provision need to become much more open and flexible in order for these opportunities to be tailored to the needs of the learner.

The need for sustainability is a recognised requirement in many areas of life today and the educational system too should be sustainable. This requirement will be covered by the European Certified Heat Pump installer training scheme which will offer installers the possibility to extend their knowledge in a practical manner.

The scheme aims to:

- encourage installers to invest in further education and training
- inform them that such a qualification will enhance improve their competitiveness
- illustrate that education does not end with the final exam at school

- to provide life long learning to upgrade existing skills

Chinese proverb:

'When planning for a year, plant corn.

When planning for a decade, plant trees.

When planning for life, train and educate people.'

Guanzi c6,454 BCE

Martina Höller (LGWA)

France

The French Heat Pump Association (AFPAC) has undertaken a set of actions to improve the quality of heat pump installations. A quality charter for heat pump installers has been agreed and will be launched in the next few months. This charter has two key points: installers who sign it will:

- be obliged to undergo a training course on heat pump installation and
- be submitted to random inspection of their installations by an external inspection body.

AFPAC took the opportunity to merge its initial training curriculum with the EU-CERT.HP project in which AFPAC participates by way of one of its members, EDF. The first pilot course was held in May 2006 at COSTIC (Scientific and Technical Committee for Climatic Industries) a member of AFPAC. This course received good feedback and a second pilot course will be held later this year.

Five other technical centres are now candidates to supply this training and the first courses should start in 2007. To help this action, AFPAC by way of its manufacturing members will provide heat pumps to these technical centres for use in the practical part of the training courses.

Since the beginning of 2005, customers who purchase heat pumps for domestic use can, under certain conditions, receive a refund of 50% of the cost of the heat pump from the French government. The market in France is increasing dramatically: 28,000 heat pumps in 2004. 37,200 heat pumps in 2005, consequently the quality charter has support from ADEME, the French Energy Agency and is welcomed by the Industry Ministry.

Michael Coevoet (EDF)

Ireland

Heat pumps using renewable energy sources have been commercialised in Ireland for well over 10 years. Today, the distribution and installation of heat pumps is a flourishing industry. Over 2,000 'renewable heat pumps' were sold in 2005, up 100% on the previous year. Over 35 brands of heat pumps are available on the Irish market, including one manufactured in

Ireland. This rapid growth in the business is due to a number of factors including successful promotion by the national and local energy agencies, a lot of positive publicity in the media and the unrelenting efforts of Irish entrepreneurs. A tremendous amount of new housing construction (about 80,000 new units in 2005), rising energy prices and increasing environmental awareness have contributed to a favourable environment for this growth to take place.

In 2004, the report 'Campaign for Take-off for Renewable Heat Pumps in Ireland' presented the results of a study undertaken by Arsenal Research (Vienna) for Sustainable Energy Ireland www.sei.ie which defined an action plan for the development of the Irish heat pump market. The report made it clear that the quality of installation was paramount for the long-term success of this technology, and that providing training was a strategic requirement for the industry. While many Irish suppliers have worked closely with heat pump manufacturers to provide training to their installers, the level of demand is such that the availability of qualified technicians is a limiting factor. However small, it is also becoming apparent that there is an element of the trade that operates without a genuine concern for quality.

Starting in 2005, the Renewable Energy Installer Academy aimed at addressing the training issue. This project is funded by the European Interreg programme and co-managed by SEI and Action Renewables. Dundalk Institute of Technology and Lisburn Institute for Further and Higher Education were set up to deliver training courses for heat pump installers under the umbrella of the Academy. The project provided for the establishment of dedicated training laboratories, the training of trainers, the preparation of course manuals and visual materials. Since the beginning, the development of the heat pump training course was envisaged in the context of the EU-CERT.HP project and it will lead to the European certification of the trained installers.

Today, the pilot phase is well underway and all six courses planned for the rest of the year are overbooked. Following on from the pilot phase, SEI is aiming at establishing at least one additional training centre for heat pumps before the end of 2006 to achieve a sufficient geographical spread throughout the island of Ireland. This initiative is part of SEI's commitment to foster quality in the marketplace, and is an integral element of the Greener Home Scheme which is a campaign for the deployment of renewable heating in the domestic sector www.sei.ie. As a result, it is expected that the Academy will have trained over 70 heat pump installers with European certification by the end of 2006.

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Jitske Burgers (SWS)

UK

In the UK, pilot courses have been run by Grimsby Institute with BSIRA preparing the course material and organising the booking arrangements and publicity; future courses will be handled entirely by Grimsby Institute. An evening class course will start in October; one evening a week for 13 weeks, and a full time, one week course may run before the end of the year if there is sufficient demand.

Bedford College has also expressed an interest in running the course which would start in the spring. The course can be run by any training institutions (colleges, private trainers and manufacturers) on the condition that the criteria set by the qualification body (incorporating the EU CERT criteria) are met.

BSIRA may set up a distance learning version of the course, but this has yet to be confirmed.

Reginald Brown (BSIRA)

Sweden

The laboratory facility according to the course demands has been completed. The manual is almost finished with some translation and layout still to be done.

Two test courses have already been realized with parts of the new materials. The first official course that corresponds completely to the new material according to the demands in EUCERT will start at Mid Sweden University on 9 November 2006. The EUCERT course will, from 2007, be a obligatory part of the energy engineering program at the University and will have the value of 3 University credits. The University has signed a contract with SVEP (Swedish Heat Pump Association) to give at least 4 courses a year for training heat pump installers

A national board of education has been established and it held its first meeting on 6 September. The members are Martin Forsén from SVEP, Bertil Lindström from

Incert AB and Bengt Sandstrom from Mid Sweden University. Incert AB is the personal certifying body and the accreditation body for refrigerant technicians and companies in Sweden. The national board of certification will be formalized at the end of September and will have the same members as the board of education. A contract with Incert AB including administration and costs will be discussed and agreed before the end of October.

Further information about courses can be found at the homepages of SVEP, Incert AB and Mid Sweden University. Today there is already information at www.miun.se/tfm/EU-HP.cert. Each course will be advertised on SVEP's homepage and press release will be sent to local newspapers during September/October 2006. An advertisement in an energy enclosure will be circulated in the second biggest national daily newspaper on 5 October.

Bengt Sandstrom (Mid Western University)

European competent installers

The primary recommendations of the EU CERT project are that:

- the European Heat Pump Association (EHPA) form two boards
- a European Heat Pump Training Board to be responsible for the contents of the training courses
- a European Heat Pump Certification Board to be responsible for accrediting courses and certifying those persons who will teach the courses
- a fee structure be agreed for accrediting courses and maintaining the content of the training manuals
- copyright status be applied for the various training programmes
- membership of the Boards to comprise the national coordinators or their representatives of each country participating in the accreditation scheme

The objectives, tasks and expectations of each Board are now described in some more detail

European Heat Pump training board

The main tasks to be:

- maintain the training commitment in accordance with the mission statement, the training targets, training standards and auditable record keeping
- define upkeep and amend established training standards transfer and exchange 'know-how' at European level

- provide document templates to facilitate trans-national co-operation
- disseminate and publish appropriate information at European level

The national co-ordinators will work with national training boards to:

- implement the European standard and define specific adaptations needed at the national level
- notify the participating national training institutes of any changes to the training system
- disseminate the training programme at national level
- communicate with the national training institutes

The national training institutes are then obliged to:

- deliver the training courses
- evaluate the courses
- implement and maintain the training programme
- disseminate at local level
- responsible for subcontracting or hiring trainers
- maintain feedback on all aspects to the national education committee

The national co-ordinators and training institutes by committing to the EU-CERT.HP training standard then have the right to use printed manuals and other training materials published by the EU-CERT.HP scheme, advertise and promote their training courses as EU-CERT.HP training course.

European Heat Pump Certification Board

The main tasks to be:

- define the certification commitment including the mission statement, the system of certification, quality management and record keeping
- approve amendments to the scheme
- transfer and exchange knowledge and best practice
- provide templates for dissemination and scheme evaluation at trans-national level
- publish, promote and disseminate the certification scheme at European level

At national level the certification board to have the following responsibilities:

- implement and maintain the international certification scheme and define required adaptations needed at national level
- report national experiences to the European Heat

Pump Certification Board

- produce templates of translated documents
- disseminate the scheme at national level
- grant, award, renew, suspend, and withdraw certification as appropriate
- define policies and procedures for the required performance of qualified persons
- ensure that the certification board's finances are sound
- maintain records, national database and information material
- set up policies and procedures for the speedy resolution of appeals and complaints

Signing the contract requires the national board to adhere to the certification procedure guidelines, undertake the required tasks at national level, ensure that there is as appropriate quality assurance procedure, attend the required meetings, report back to the European Heat Pump Certification Board and maintain an up-to-date list of certified installers at national level.

The EHPA will consider these proposals and is expected to endorse them at the next meeting of the Executive to be held on September 29 in Brussels. The following week, the recommendations will be discussed at the TRACE symposium being organised by Arsenal Research in Vienna on 4/5 October

Robert Garwood (BRE)

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