



E U R O P E A N  
C O M M I S S I O N

T H E R M I E

The demonstration component of the JOULE-THERMIE Programme



## The OPET Network Success Stories

Sectoral Report  
1995-97

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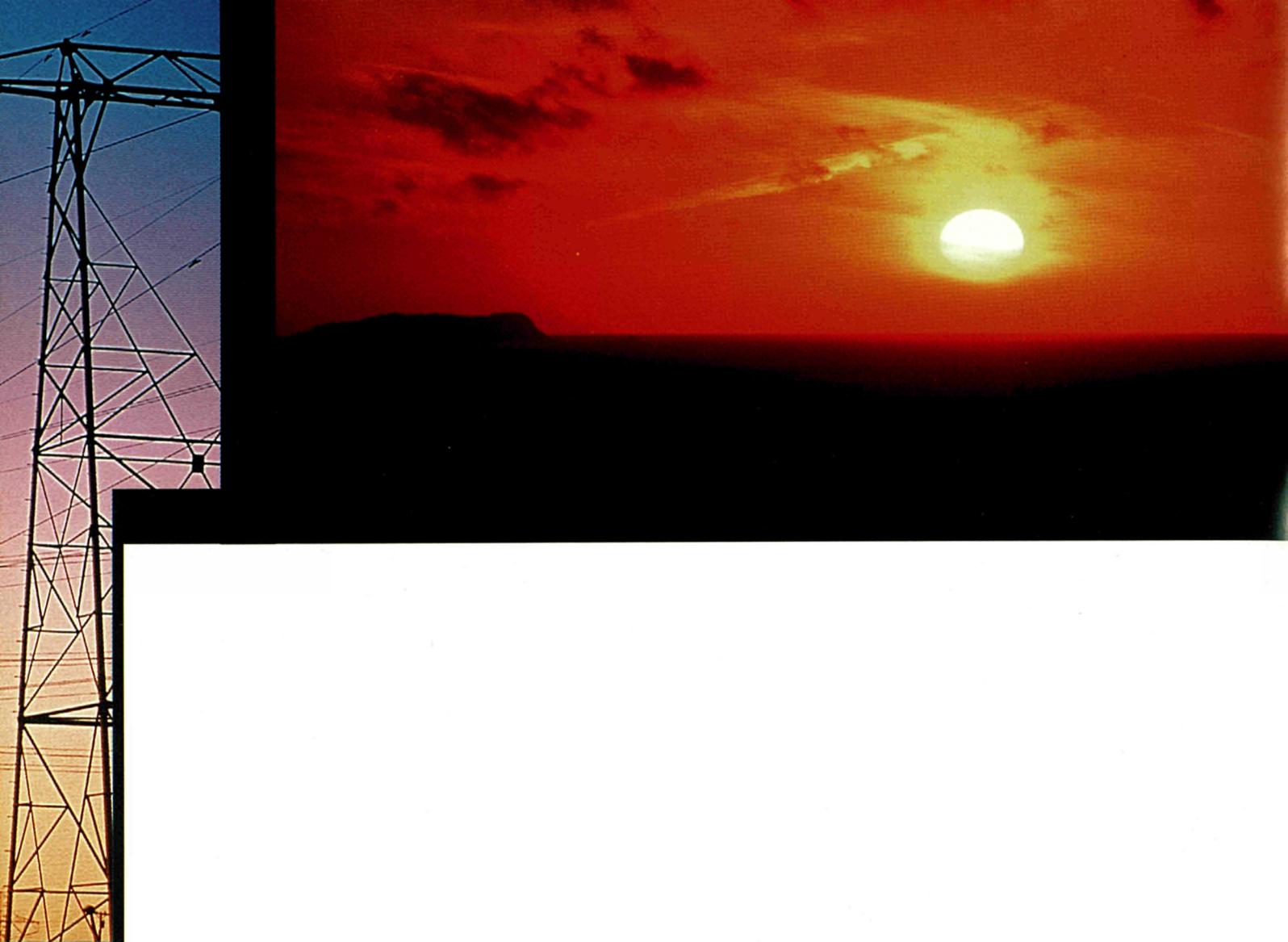
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# **THE OPET NETWORK SUCCESS STORIES**

THERMIE SECTORAL REPORT

Overview of THERMIE activities 1995-1997



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## **FOREWORD**

The OPET Network is a unique body, being a collaborative venture between the Demonstration Component (THERMIE) of the JOULE-THERMIE Programme, managed by DG XVII, and the INNOVATION Programme, managed by DG XIII.

This co-operation between two Directorates-General of the European Commission has been invaluable in bringing together expertise and experience both in energy technologies and in innovation, technology transfer and the valorisation of research.

But the co-operative nature of the OPET Network does not, of course, end with the close relationship between these institutions. Indeed, at the very core of the activities of the Network is one central objective – to work closely with the wide range of organisations, companies and individuals which make up the marketplace to help them to utilise the clean and efficient energy technologies supported by the EC Programmes. This means that in all of the activities carried out by the different organisations in the Network, we aim to foster a dialogue with our clients, to understand their needs and their problems, and to help them take-up the innovative technological solutions.

This central aim of the Network is compatible with the wider discussions on the future of European Research and Technological Development (RTD) initiatives, as exemplified by the current debate on the 5th Framework Programme for RTD. We recognise the need to work closely with the market and to build on the dissemination of information and the promotion of technologies, with focused and targeted activities which best meet the needs of our clients.

Helping to achieve technological take-up is a difficult and time-consuming process, which does not happen overnight. The new OPET Network is now coming to the end of its second year of operation. To help explain what we have been doing so far, DG XVII is producing this OPET Sectoral Report as part of a wider set of reports on the activities of the different technological sectors in THERMIE as a whole.

We are especially pleased and encouraged to introduce in this publication some of what we consider to have been the highlights of our work so far. These success stories are only a selection of the wider activities of the Network, and we would encourage you to contact the partners in the Network or the OPET-CU if you want to know more, or if you want to co-operate with us in any manner.

We will be working hard over the next years to expand and improve on our activities. We are sure that you will find this summary of our work so far a lively and action-provoking report.

**Pedro Ballesteros, DG XVII-D1**  
**José Antonio Hoyos Perez, DG XIII-D3**  
**José Bastos, DG XVII-D1**



## **ABOUT THE OPET NETWORK**

### **How was the Network established?**

In 1990, the EC launched the THERMIE Programme for the demonstration of non-nuclear energy technologies under the then 3rd Framework Programme. At this stage, a Network of Organisations for the Promotion of Energy Technology (OPET) was also established to help the Commission with the dissemination of information and the promotion of new technologies.

In 1995, THERMIE was subsequently integrated into the First Activity of the 4th Framework Programme (FWP) for Research and Technological Development, to become the demonstration component of the JOULE-THERMIE Programme, managed by DG XVII. Dissemination and valorisation activities using networks were moved to the Third Activity (INNOVATION Programme) of the 4th FWP, managed by DG XIII.

Since November 1996, the OPET Network, as we now know it, has been managed as a co-operative venture between DG XVII and DG XIII, with the latter dealing with the overall contractual management of the Network and the former with the technical orientation and content of the actions that it undertakes.

The existing Network as it currently stands will run for three years. It is resourced to the tune of over 6 MECU for the first two years, with a further allocation of funding to be made available for the final year. This sum covers the activities of the OPETs themselves, central co-ordination and assistance, and expert technical support.

In 1998, the Network was extended to cover 10 Countries of Central Europe (CCE), with funding of 1.75 MECU per year, over 2 years, in a joint initiative of the INCO (managed by DG XII) and THERMIE programmes. The new organisations selected in these countries (called the Fellow Member OPETs, or FEMOPETs), are being fully integrated into the wider OPET Network.

### **Who is the OPET Network?**

The OPET Network is made up of many different actors. At its core are the 41 Organisations for the Promotion of Energy Technology – OPETs – spread across all Member States of the European Union, and associated countries such as Norway, Iceland, Liechtenstein and Israel.

In 1998, 13 Fellow Members to the OPET Network (FEMOPETs) were added to cover the Central European area. FEMOPETs are equal partners in the wider OPET Network, and work alongside their OPET counterparts.

The European Commission, supported by the OPET-CU (Central Unit), helps the OPETs to manage their activities and to foster a wider contact with the market across Europe, nationally and internationally.

Finally, the Network is supported by a group of Sectoral Technical Experts who provide advice and services to the OPETs. They provide “added value” to the OPET activities in terms of the technological state-of-the-art.



## **HOW CAN THE OPET NETWORK HELP YOU?**

The OPETs and FEMOPETs carry out a very diverse range of activities, all designed to help our clients – in industry, in public agencies, in utilities and the wider society – to benefit from the opportunities offered by clean and efficient energy technologies in three key sectors:

- Renewable energy sources – wind, solar thermal, photovoltaics, small hydro, biomass/wastes and geothermal;
- Rational Use of Energy – in buildings, industry and transport;
- Fossil Fuels – oil and gas and clean and efficient use of solid fuels.

Technologies and applications for these innovative solutions are supported under the JOULE-THERMIE Programme. The JOULE component for research and development is managed by DG XII, while the THERMIE component for the demonstration and promotion necessary to enter the marketplace is managed by DG XVII.

Between 1995 and 1998, 550 MECU of budget support were provided by THERMIE for demonstration projects and associated measures, 470 MECU went for technical demonstration projects, along with 80 MECU for associated measures such as studies, events, publications, business missions and exhibitions.

As a consequence of the resources made available to EU companies in JOULE-THERMIE, a great deal of progress has been made towards the development of clean and efficient energy technologies.

But the Commission recognised that the development of technology and the dissemination of information and promotion of its benefits is not in itself sufficient to secure rapid deployment in the marketplace. There exists a set of barriers and obstacles that companies, organisations and individuals face in implementing decisions to adopt the new technologies and applications in their businesses and lifestyles. For this reason, the Commission supports the OPET Network to provide a range of services to help these bodies.

OPETs and FEMOPETs implement a targeted set of actions, aimed primarily at a given technology, or sector, or region/locality and focusing on how to provide activities, which meet the real needs of market actors. Alongside the necessary information and promotional products, campaigns which consult the market actors and the sectors of industrial and civil society, and then responds to their real needs, are undertaken by the Network.

In doing so, the organisations in the Network understand the real requirements of the market actor, and then put in place the means by which they can realise the take-up of the technology. This means that a partnership with the sector of industry, society, region or locality is being built to best address their concerns.

To do this, OPETs and FEMOPETs undertake the following types of activities:

- Networking and Assisting Market Actors: linking with local networks; one-to-one meetings with SMEs and industry; open days and technology transfer days; site visits; training etc.;
- Evaluating Technology: studies, technical fiches etc.;
- Events: seminars, workshops, conferences, exhibitions etc.;
- Publications: newsletters, reports, brochures, CD-ROMs.

All these activities are carried out to help you – the client – to best consider how you can benefit from the technologies supported by JOULE-THERMIE and other EC Programmes.

OPETs and FEMOPETs, however, do not simply work as organisations focused only on their own area or industrial sector. One of the fundamental strengths of the OPET Network initiative is its operation as a network. That means we share information, learn from other's activities and provide a mechanism to allow from a trans-European dimension to our working.



## **HIGHLIGHTS: SUCCESS STORIES TO DATE**

### **Working Together – Collaborating with Market Actors**

The philosophy of the OPET Network is to build a partnership with the groups in the marketplace and society, and to work closely with them to help identify and address their needs. Consequently, much of our activities have concentrated on this area, through meetings, working groups and strategy development, and through more focused actions such as site visits, study tours etc. All these tasks are aimed at getting together with the client, understanding what they need, and then helping them achieve their goals. By doing this, we encourage them to take-up the technologies which give them greatest benefits. The end result of these actions has always got to be that the market actors themselves, whether industry, public sector or voluntary sector, have better access to and take more advantage of the most useful energy technology innovations.

This process of collaboration is not one-off. OPETs and FEMOPETs work together with industry, public bodies, utilities and other market actors over the course of many months, recognising that technology uptake is not an instant process. Organisations in the Network thus seek to keep in regular and close contact with our clients to constantly meet their concerns.

In the first 18 months of our activities, the OPET Network as a whole has carried out many different activities involving collaborations with market actors. These have been very diverse geographically and spread across all the sectors of the programme – renewable energy sources, rational use of energy and fossil fuels. Likewise, every OPET across the EU and the associated states, as well as the FEMOPETs in Central Europe, has undertaken activities with this aim in mind – working together.



### **Teaming up with industry to promote energy efficient lighting – VTC (VITO)**

In many fields, the technologies that can produce energy savings are already available and economic. Domestic lighting is an excellent example of this case. The key to improving market penetration therefore is to improve public awareness of the technologies available, and several of the OPETs have seen that this means identifying the right partners to make this happen.

In Belgium, VTC have identified these partners as the electricity suppliers. They have a strong interest in helping households reduce their electricity needs, and see more efficient lighting as an important part of this. They therefore wanted to know what the barriers to the uptake of this technology were, so that they could devise a strategy to overcome them.

VTC carried out a detailed study, based on a successful promotion by a regional electricity producer, which identified two main obstacles:

- The higher purchase price of the efficient bulbs;
- The majority of existing lamp fittings are not suitable for compact fluorescent lamps.

Using these findings, the electricity suppliers were able to target their market promotion effectively. They have reproduced the regional campaign at a national level. VIREG, the Flemish Institute for Rational Use of Energy, addressed the second barrier and launched a designer contest for fittings suitable for compact fluorescent lamps.

- Almost all households are eligible for a 33% price discount when buying fluorescent lamps;
- A competition has been launched to find the best design for fluorescent lamps which are compatible with conventional lamp fittings. The results of this contest will be decided in October 1998.

Although the results of this second action have not yet made themselves felt, the overall approach has proved to be highly successful. To date over 100,000 efficient light bulbs have been sold. Assuming these are used for an average of 4 hours per day, this represents some 7 GWh per year of electricity saved.

For more information, contact: Greet Vanuytsel, VTC

OPET-EM (SE) is assisting the Swedish bioenergy industry to penetrate new and expanding markets both in the EU and beyond. In September 1997, manufacturers of biomass equipment participated in a technology transfer meeting in Gdansk, Poland. As a result of the meeting, a Polish buyer visited demonstration plants in Sweden and negotiations are now underway for the delivery of a wood powder burner to Poland. More technology transfer meetings are planned in collaboration with other OPETs and FEMOPETs.

Contact: Sonja Ewerstein, OPET-EM



### Targeting SMEs in the Textiles Sector – LDK

The textile industry involves a range of highly energy-intensive processes, making energy one of the major costs to the sector. New energy efficient technologies can offer the industry important cost savings by finding new opportunities for recycling and reducing water and heat consumption.

However, as one of the oldest industries in Europe, the textile and clothing sector is characterised by a large number of SMEs specialising in different stages of the production process. In an ever more competitive world market, these companies tend to give energy efficiency improvements a low priority compared with cost cutting or increasing production rates.

As part of their OPET activities, LDK consultants conducted a questionnaire survey among local textile SMEs in order to understand their current energy use and the barriers which are currently inhibiting investment in energy saving. This was complemented by a review of available energy technologies and an assessment of their suitability for local conditions. As a result of this work, LDK identified the dyeing and finishing branch of the textile sector as having the greatest potential in terms of possible energy savings and uptake of new technologies.

From a selection of 20 interested SMEs in the dyeing and finishing sector, two sites were singled-out for professional advice on how to reduce energy consumption, what technologies are most suited to their requirements, and possible financing options for project realisation. Five possible energy-efficiency projects were identified at the two sites, with a corresponding investment cost of 400,000 ECU and projected energy saving of 20%. Both the companies involved reacted very positively to the advice provided by LDK, and are expected to begin implementation of the energy-efficiency projects within the next year.

For more information, contact: Marianna Kondilidou, LDK Consultants.





### **Mobilising market actors to bring energy savings to public schools – OPET Austria**

Schools are usually very profligate with energy, having both high total energy use and low levels of efficiency. In addition, they rarely have personnel with a good understanding of and interest in energy efficiency. This means that they often have large energy bills, absorbing funds that could be used for education. It also makes them ideal customers for Third Party Financing (TPF), which addresses many of these problems, but is still not widely understood.

OPET Austria has therefore made it a priority to promote the concept of TPF to key actors in the Austrian market, with impressive results. Building on the past activities of the Austrian Energy Agency (EVA), the OPET hosted a number of studies, seminars and workshops on TPF. These were aimed at major market actors in Austria, including major developers and large client organisations. Some of these dealt with detailed issues, such as Facility Management, and Energy Performance Contracting, while some tried to promote interest in the financing mechanism more generally.

Crucially, because of its membership and prestige in the industry, the OPET was able to bring to these events the organisations that can produce market results. The largest real estate developer in Austria, Bundesimmobilien-Gesellschaft (BIG), was encouraged with the help of the OPET to undertake a demonstration project covering 50 federal schools throughout Austria. The OPET supported this project in a variety of ways:

- Developing some 100 energy efficiency indicators for the school buildings;
- Selecting the best buildings for the project;
- Preparing the legal and organisational framework of the call for tender;
- Project monitoring.

The guaranteed energy savings from the contractors for this project are 20% in cost terms, representing around 10.5 million Austrian Schillings per year (755,000 ECU/Year) and around 105 million Austrian Schillings (7,550,000 ECU) over the contract period of 10 years. The players involved have indicated that this demonstration project should be the beginning of a series of similar large-scale projects in Austria.

For more information, contact: Günter Simader, OPET Austria.

CRES (GR) is responsible for an industry-wide initiative to address energy-saving and environmental issues in the olive-oil sector. Representatives of Greek olive-oil companies, trade associations and financing bodies have been brought together in a Working Group to address energy and environment priorities, available technologies and future actions. Targeted dissemination, promotion of new energy technologies and training are some of the activities to be followed up in Year 3 of CRES's OPET activities.

Contact: Maria Kontoni, CRES



## Evaluating Technological Needs

Another vital element in our activities is to evaluate the technological needs of organisations and to provide information and assistance on the technological state-of-the-art. By linking with our activities to collaborate more closely with the market actors, we have been able to feed in appropriate information at just the right stage in the decision-making process.

To do this, OPETs and FEMOPETs are active in carrying out tasks to assess the state of technological development and take-up across many different sectors of industry and society, throughout Europe, focusing on the regions in which they are based.

CCE (PT) is promoting wider uptake of new energy technologies among SMEs within the Portuguese dairy industry. Following a workshop organised in collaboration with the National Association for Dairy Industry and the regional branches of the SMEs institutes, CCE has received several enquiries from dairy companies interested in implementing energy-efficient technologies. Among the technologies being promoted are four projects demonstrated through DG XVII's THERMIE programme.

Contact: Diego Beirao, CCE

ICAEN (ES) is working closely with the Catalan Hotel Association to address the energy technology needs of the hotel sector. Their activities follow the successful "4 Step Plan":

- Evaluate technology needs;
- Assess the measures available;
- Carry out targeted promotion activities,
- Facilitate funding opportunities.

Solar thermal technologies in particular have been selected for promotion among hoteliers. A Third Party Financing scheme is also going to be set up to overcome financing problems.

Contact: Joan Josep Escobar, ICAEN



### Product Champion for New and Improved Technologies – BRECSU

Technical innovation, always at the heart of improving energy efficiency, is often driven by small companies with the flexibility and market-responsiveness to spot and exploit new opportunities. However, these companies can then be too small to give the new technologies the marketing, distribution and credibility that they need to make an impact on the market.

BRECSU has been working with such companies to identify key technologies needed in the market, to find companies that can produce them, and to champion the products to help them enter the market. Of some 15 products identified as necessary for the buildings sector, six have been produced thanks to the OPET's support (with more in the pipeline), and three in particular have achieved significant market penetration:

- A heat controller that uses smart technology to regulate internal temperatures more closely. The controller is capable of intelligently learning the building's heat needs and parameters, adapting to the physics of the building, zoning and occupancy patterns to minimise wasted heating;
- A new luminaire, suited to the fitting of low-energy fluorescent lamps, to replace the older versions which often prevented the fitting of fluorescent bulbs;
- A quieter, low-energy extractor fan which regulates indoor humidity without allowing undesired draughts (standard fans often get blocked off to prevent this, reducing indoor air quality.)

BRECSU's approach in each case was to talk to the market actors (whether "clients" such as Housing Associations and local authorities, or designers such as architects and engineers) to identify what the market most needed. Next, companies were approached to design the products that would fulfil these needs. In most cases, the most responsive companies were SMEs. Once these technologies had been designed and produced, the OPET lent its support through sharing stand space at exhibitions, disseminating information, and simply through the added credibility lent to a product by association with BRECSU as a leading professional organisation.

The results have been very positive:

- The heat controller has sold some 2000 units, bringing estimated total energy savings of around 550 MWh per year;
- The luminaire has sold about 500 units so far. It has been specified as standard in two new developments by the Bourneville Housing Trust in the UK;
- The extractor fan has sold around 15,000 units.

For more information, contact: Mike Trim, BRECSU.





## Supporting Technology Development

The EC has substantial resources available in programmes such as JOULE-THERMIE for the development and demonstration of clean and efficient energy technologies. Additionally, through programmes such as INCO, SAVE and ALTENER, a number of other issues such as international co-operation, policy development and strategy development for energy technologies are supported.

An important task for the OPETs and FEMOPETs, and other Networks of the Commission such as the INNOVATION Relay Centres (IRCs) or Regional/Local Energy Agencies supported through the SAVE programme, is to advise organisations in the preparation of proposals under the EC's initiatives. This is done through raising awareness of the opportunities, helping with partner searches and through meetings to provide further advice and assistance.

The first year of our activities coincided with calls from the JOULE-THERMIE Programme, from INCO-COPERNICUS and from targeted initiatives aimed at increasing the level of Small and Medium-sized Enterprises (SMEs) involved in EC Programmes.

Many OPETs were successful in organising or collaborating in promotion events on the calls, disseminating information packs, and providing more focused advice on how to best prepare a proposal. Of the people who have benefited from the advice, a significant proportion chose to take the help forward into the actual submission of a proposal to the EC for technological development. Many of these are now being evaluated by the Commission's services, and some will result in the successful award of support. The OPETs and FEMOPETs, of course, will then in turn promote the outcome of these new projects to the wider audience through future activities.

Besides helping our clients access the resources available within EC Programmes, OPETs and FEMOPETs also directly support the process of technological development by facilitating contacts between different types of market actor.

### **Helping SMEs Mobilise European Commission Support – Cross-Border OPET Bavaria-Austria**

The European Commission operates a large number of programmes intended to give full support to companies wishing to develop or better exploit innovative energy technologies. A problem, however, can be that those SMEs that are most in need of this support are least equipped to take advantage of it, in terms of available personnel time, knowledge of the opportunities and the administrative capacity to go through the formal procedures involved.

Cross-Border OPET's solution to this problem has been to establish an advice centre aimed principally at these companies, though its services are also open to larger firms and Local Authorities. They have individual advisory meetings with technical and financial experts from the OPET consortium about the different European energy-related RTD programmes. These include detailed consultation about the selection of the right support programme and on how to prepare a successful proposal for support in the RES, RUE and SF sectors. This service is offered free of charge during the contract period in all three offices of the OPET. Since the first implementation of this service in 1996 about 125 interested parties have been consulted all over Austria and Bavaria, and 11 innovative energy technology projects so far have been initiated with the support of these consultations.

Two examples of the projects that have been made possible through this assistance are:

- The cross-border utilisation of geothermal energy in the framework of the THERMIE component of the JOULE-THERMIE programme, deepening the co-operation between Member States;
- A cross-border RTD project on the development of a gasification chamber comprising combustion optimised gas engine and turbulence chamber treatment in the framework of the JOULE component.

For more information, contact: Toni Lautenschläger, Cross-Border OPET.





### Promoting more efficient cooling technologies – IDAE

Easy to forget in a Belgian summer, but as a European average, space cooling is estimated to account for 40-50% of peak electricity demand in the commercial sector during the hottest months. In the heat of Madrid, IDAE have been focusing on technologies that can improve the efficiency of this electricity use. A number of promising technologies have been introduced into the market in recent years, and all can benefit from the added profile that a product champion such as IDAE can bring. Within the framework of its OPET contract, IDAE have been addressing this market by promoting different systems of ice production. In November 1997 they organised a Technology Presentation in Madrid, where suppliers presented the most innovative ice production technologies for industrial use: Liquid Ice, Flo-Ice and Flake Ice.

Liquid Ice is jelly-like in appearance, and consists of an ice solution in which very small amorphous ice crystals are generated and suspended. Its fluidity, high cooling capacity and flexibility in application mean that it can directly replace conventional ice generators and refrigeration systems, and offer real improvements in efficiency: energy efficiency of 70%, compared to around 45% in standard systems, lower freon consumption per ton of ice, lower operating cost and greater ease of pumping. In addition, the finer, softer ice gives a more even distribution of cooling and better product preservation for applications in industries such as food processing, where rapid cooling is required. As well as the food and beverage industries, liquid ice is useful in a wide range of air conditioning and industrial cooling systems.

Flo-Ice is formed by spherical ice crystals in a water solution with additives such as salt or alcohol. It can be pumped at ice concentrations between 5% and 95%. The ice is produced in a double-walled heat exchanger, by freezing sea water. Flo-Ice can be used for air conditioning, supermarkets, industrial processes, cooling and storage of fish etc.

Flake Ice is produced by pouring water into the walls of a refrigerated tank (falling film). The falling film is then fractured and shaken inside the tank, producing fine flakes. With this system ice can be produced continuously, in flakes of a thickness between 1 to 3 mm, and the large surface and high heat transfer coefficient make it highly efficient for producing refrigerated water. The technology provides energy savings of 40-50% over conventional technologies. Flake ice can also be used in the fish, agrofood and chemical industries.

Through this OPET technology promotion activity, IDAE was able to give the promoters of these technologies a platform they would not otherwise have had. Thanks in part to this support, five projects are already expected, four for liquid ice installations in the food processing industry, and one using the flake ice system for frozen fish industry.

For more information, contact: Virginia Vivanco, IDAE.



*The new medium scale wood chipper by Kotimaiset energiat Ky Pekka Lahti*

### **A "Wood Fuel Technology Clinic": helping SMEs develop new techniques and technologies for using wood fuel – OPET Finland**

In a country such as Finland, with a lot of forest and very cold winters, the use of wood fuel for heating is an obvious solution. SMEs in that country are therefore very interested in developing new technologies to improve the efficiency of wood fuel use.

The problems for SMEs in developing new technologies are well known: they do not always have the resources or administrative capacity to undertake long development processes, to find and apply for available funding sources, or to be familiar with potential technical collaborators. In a number of technology fields where intensive R&D has been carried out in national technology programmes, the concept of Technology Clinics has been applied with significant success. These clinics provide a bureaucracy-free means for SMEs to benefit from results of the technology programmes and to access existing sources of support for the further development and marketing of new technologies.

Tekes has used this concept to create a Technology Clinic for wood fuel technologies. This covers development of equipment, logistical systems and other tools for providing a useful source of wood fuel for energy use. The clinic enables SMEs to participate in, and benefit from the results of the bioenergy technology programme, a six-year programme launched in 1993 with a view to increasing the use of economically profitable and environmentally sound bioenergy. Participation in this programme has enabled SMEs to overcome specific technical problems, without taking on an extra administrative burden.

Since the Clinic was set up, two companies have used this service to bring wood energy technologies to the market. While high capacity wood chipping equipment developed under the programme since 1993 are already established in the marketplace, the use of medium-sized wood chip boilers (for instance, the size needed to heat a group of buildings) is made difficult by the fact that available chippers do not produce fuel in the appropriate quantities, or are too expensive for small users. One SME has produced a new small-scale wood chipping machine, which is appropriate for this scale of use and costs just 10% of the price of a high capacity chipper. A second has developed a specially-designed trailer for transporting forest residues from cuttings to the roadside for chipping, significantly improving the economics of using this fuel. Both companies had encountered technical problems in development, but the Clinic was able to find the appropriate researchers to help overcome these, and helped the companies access national funding sources to cover half the cost of this development.

As a result of the assistance of the OPET's Technology Clinic, two technologies which may not have reached the market are to be introduced, with a significant impact on wood fuel use in Finland.

For more information, contact: Marjatta Aarniala, OPET Finland





## **Global Problem, Local Solutions – Working at the Local Level**

Because the Network partners themselves are integrated at national, regional and local levels, much of the work is also focused on supporting and contributing towards other activities carried out in the area that they cover.

These activities can be part of national/regional programmes, sometimes administered by the OPETs or FEMOPETs themselves in their role as the national/regional agency, or carried out by third-parties. In any case, they are actively involved in many of these initiatives.

A vital element of their role in these activities is to bring in the depth of European experience and expertise available across the OPET Network as a whole, including the Sectoral Technical Experts. This means that one organisation alone has access to the range of knowledge, skills and information of the wider Network.

FAST (IT) is encouraging the regional implementation of legislation for a national energy plan in RUE and RES development. Detailed analyses of energy consumption, energy supply and technology needs have been carried out in ten municipalities in the Province of Milan. Six municipalities are receiving more detailed advice and assistance in terms of promising energy technologies and the role of the energy manager. Several are already performing feasibility studies for the optimisation of energy consumption, for example in the public lighting sector.

**Contact: Paola Gabaldi, FAST**

NIFES (UK) is increasing the profile of energy supply and energy use among island communities in Scotland. The Islay island energy project is the first of its kind, and brings together representatives from the local community, industries, public authorities and the power utility. NIFES is currently helping them to set up an Energy Management Agency which will provide a “one-stop-shop” on energy advice and technology implementation.

**Contact : Graham Howes, NIFES**



### **Harnessing EU support for innovative projects: the Dyfi Eco Valley Partnership – Wales OPET Cymru**

Private individuals and local organisations all over Europe are producing the creativity and innovation to change the face of EU energy use. A valuable role for the OPETs is making sure that these initiatives bear fruit by helping local organisations to access EU support, and to integrate their activities in the wider European networks.

Wales OPET Cymru has played this role in supporting the Dyfi Eco Valley Partnership to promote and undertake renewable energy projects and initiatives. This pioneering project brings together local authorities, other public, private and voluntary organisations. The aim is to foster a "green" local energy economy, maximising the economic benefit of renewable energy and energy efficiency projects for the local community. Of the total cost of £900,000 (1,350,000 ECU), about 70% is provided by Powys County Council and private finance. Wales OPET Cymru assisted Powys CC to submit a bid for the remaining cost to be covered under EC structural funds, and this is now in place.

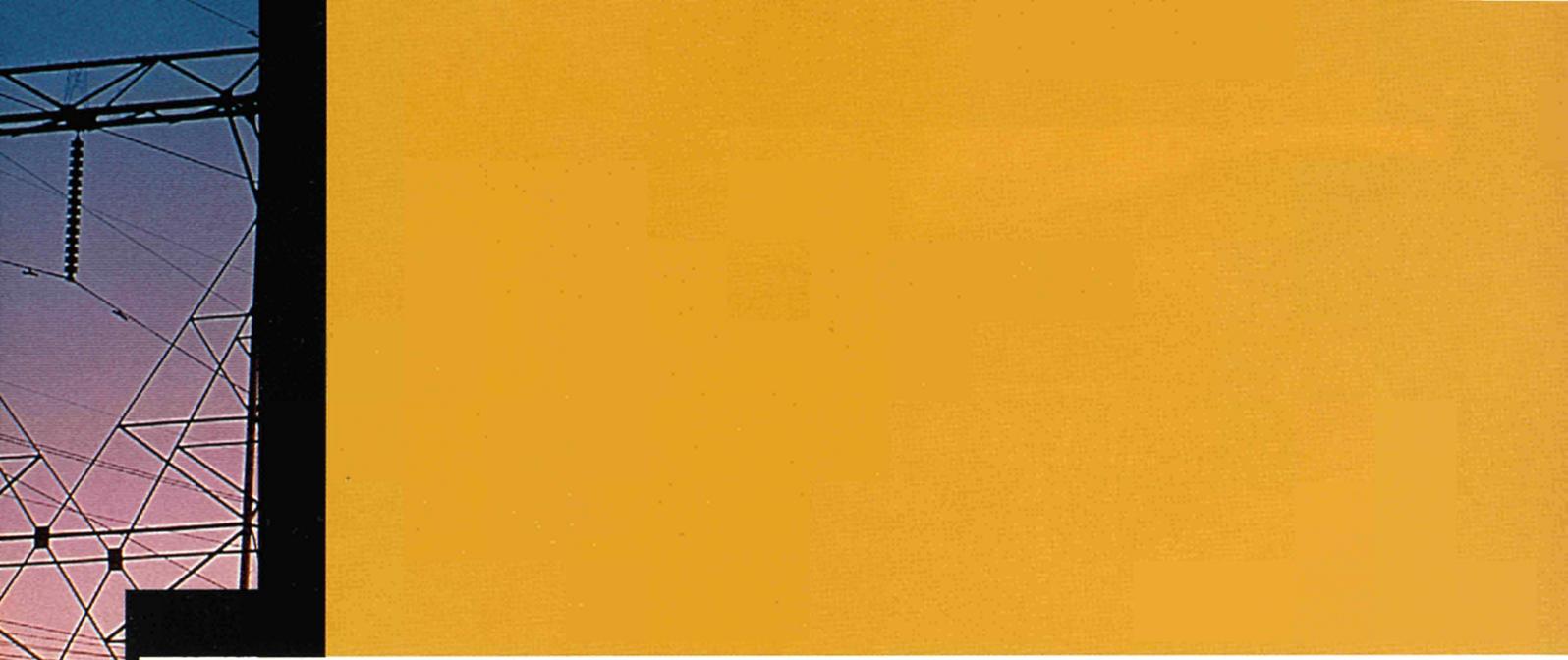
The OPET has also been active in supporting the more technical aspects of developing the Eco Valley. A project officer is in place to assist organisations and individuals in the area to develop projects. Successful ones will receive 30% grant funding towards capital costs.

This success was also aided by the transnational co-operation made possible by the OPET network. Some of the partners were able to make a trip to Austria arranged by ESV, a partner in Cross-Border OPET, greatly increasing the exchange of know-how.

The Dyfi Eco Valley is putting Wales on the world map for green energy, in particular emphasising local participation. Wales OPET Cymru is now very active in spreading the concept of the Eco Valley throughout the EU and beyond.

For more information, contact: Catherine Peasley, Wales OPET Cymru.





## **Awareness Raising and Networking Across Europe and Beyond**

Although OPETs and FEMOPETs often work with a focus on their own region or target sectors of industry, there is still a strong emphasis given towards networking and collaboration between all the partners in the Network. This helps to ensure that a trans-European dimension is retained in the Network's activities, and this element will be strengthened in successive years of the Network.

ICIE (IT) has played a key role in establishing Third Party Financing (TPF) as a real financial option for energy efficiency projects in Italy, and in the Piedmont region in particular. As a result of their promotion activities, the Piedmont Regional Government passed a resolution enabling regional health centres and hospitals to contract out energy supply services and the implementation of energy efficiency measures via TPF schemes. The Hospital of Casale Monferrato is expected to issue a call for TPF proposals in summer 1998.

Contact : Rosella Ceccarelli, ICIE



### **Promoting energy saving in historic buildings – BEO**

The EU has a rich historical and cultural heritage, of which its buildings are an important part. These are accordingly protected by law and custom from alterations that threaten their architectural integrity. Nevertheless, owners and inhabitants of such buildings increasingly expect the same levels of comfort and insulation as those in more modern buildings.

In Germany, which is estimated to have some two to three million historic half-timbered buildings, BEO has organised workshops on this topic to bring together the expertise available and make owners of such buildings more aware of the possibilities for sensitive energy efficiency improvements.

The first workshop was held in Raesfeld, Germany in October 1997, and concentrated on a range of practical technical areas such as avoiding hydrophobic coatings on outer walls, targeting a building's weak points (for instance those susceptible to condensation), and defining the optimal thickness for inner insulation layers. The interest in this meeting was so great that a second workshop was held in January 1998, and was again fully subscribed, with 80 participants. A number of the participants were owners of historic buildings, and several of these are now proposing renovations incorporating technologies that they learned of through the workshops.

Of course, European architecture varies a great deal in style both within and between countries, but to varying extents the problems and solutions affecting historical buildings are shared by many Member States. Such has been the general interest in this action in the EU that the participants, with BEO a key member, are now looking at ways to expand the coverage of this forum. Initially this will include Member States that share many of the architectural styles and techniques common in Germany, such as Austria, Holland and Belgium. In the longer term, however, this action will look for synergies with others that have dealt in some way with this field, such as the REMMA programme (funded through THERMIE) which covers the Mediterranean countries of the EU.

For more information, contact: Gillian Graze, BEO.



### **Targeting and Supporting Energy Managers – Institut Wallon**

Public organisation such as schools, hospitals and local authorities can often present a confusing situation in relation to energy savings, in that different organisational structures leave different people in overall charge of energy use. This means that an organisation such as an OPET trying to target such institutions for energy-saving techniques does not always know whom to talk to.

Institut Wallon has made the identification and targeting of Energy Managers in public organisations a major priority. The Energy Manager in a given organisation may be the accountant, a director, a technician – whoever takes responsibility for all issues of energy management within the organisation.

Today, Institut Wallon works with about 1500 Energy Managers. By targeting these identified individuals, the OPET has greatly increased the effectiveness of its promotional actions to the organisations that they represent. Some of these Energy Managers have become very active in introducing energy-saving techniques to their organisations.

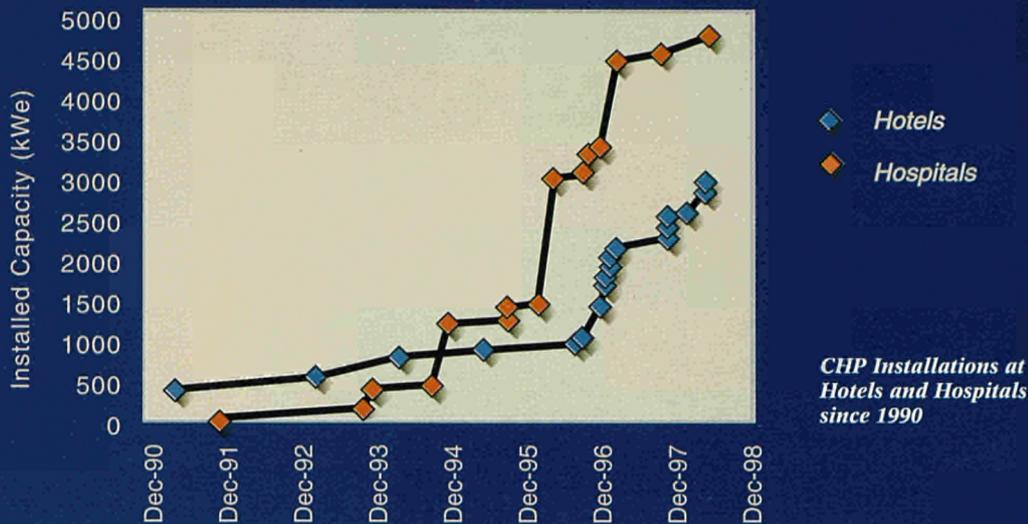
One good example of the success of this approach is the Energy Manager of the hospital "André Vésale" in Montigny-le-Tilleul. Following a first cycle of training organised in the framework of the "Energy Manager Programme", he has undertaken a number of actions which, taken together, have led to significant energy savings. For example:

- A comprehensive review of the heating distribution and control system was carried out;
- Ventilation in the laundry room was improved through installation of a new automated control system;
- A co-generation unit was installed some months ago.

The hospital and Institut Wallon continue to co-operate closely through numerous activities supported by the Walloon Region and OPET. The organisation's technicians attend workshops organised by the OPET on a regular basis, and Institut Wallon disseminates information on the hospital's activities to others Energy Managers through a newsletter and technical publications.

**For more information, contact: Veronique André, Institut Wallon.**





### Achieving Synergies through Cross-Programme Co-operation – The Irish Energy Centre

In a country like Ireland, there are a wide variety of initiatives being undertaken in addition to those of the OPET itself : national programmes, regional and local schemes, Structural and Cohesion Fund projects, and many others.

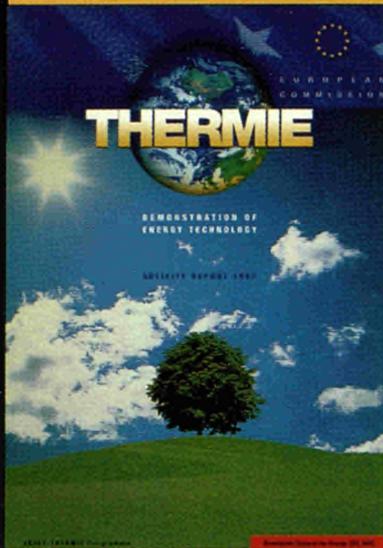
The Irish Energy Centre (IEC) has adopted a carefully considered strategy for their own OPET initiatives which seeks to maximise the synergies which can be achieved through linking their OPET activities with other projects. Through this route, the OPET activity provides real “added value” in terms of a focused action, with a trans-European dimension, into the other national or local initiatives which might benefit from this.

A good example of this initiative is in the area of combined heat and power (CHP). Implementing this technology will reduce energy costs to Irish commercial and industrial organisations, hence improving competitiveness, yet the uptake by the market was slow, despite a previous CHP seminar which was funded under the previous OPET Network. (“Commercial and Industrial Small Scale CHP”, 10-11 November 1994, proceedings available).

In the period 1994-1997 two financial instruments were administered by IEC (Energy Audit Grant Scheme and the Energy Efficiency Investment Support Scheme) which led to 14 CHP schemes being supported. THERMIE also gave financial support to CHP projects leading to the wider acceptability of the technology in Ireland today, and also to Government support under the Alternative Energy Requirement scheme AER IV – a competition for electricity generation from combined heat and power. The OPET was able to play an important role in the realisation of this success by providing a European dimension to the whole scheme, facilitating contacts with EU counterparts and partners, and helping to prepare applications to EU programmes.

The IEC has supported a CHP marketing group throughout 1997 to date and has run two successful workshops (CHP in hospitals and hotels ). The OPET activity complimented the uptake of this technology by disseminating existing literature, by providing contacts, by producing case study information sheets and by sponsoring the workshops.

For more information, contact: Rita Ward, Irish Energy Centre.



Finally, all the OPETs, FEMOPETs and the other actors in the Network, such as the OPET-CU in Brussels, carry out many on-going activities focused on more general information dissemination and awareness raising. Publications, brochures, event programmes and other documents are fed across the Network and out to our clients.

Aside from the printed word, they are also active in the electronic medium, and contribute to the successful Home Page of the OPET Network, located within the European Commission's CORDIS server (<http://www.cordis.lu/opet/home.html>). Around 9,000 visitors access this site each month, to learn more about the services of the Network, the events and publications that they are involved in, and provide feedback on our news and success stories.





## **A VIEW TO THE FUTURE**

The remaining months to come will be an exciting and active time for the OPET Network. Not content with carrying on with our activities from the first year – especially supporting and nurturing the contacts with our clients – we will be building on our successes.

Our aim is to take forward the activities which have been especially successful, and to implement them in other key areas of the market. We will always be focused on understanding what the market needs, and trying to work closely with our clients to help them make decisions on the use of clean and efficient energy technologies.

Measuring our performance, through constant contact with the organisations who use our services, will be a vital element of our work over the next 18 months.

The message is simple – work with the market, learn from and promote our success stories, and build on these to ensure that our clients are given the best possible services. This will help them realise the benefits offered by the new technologies in the field of renewable energy sources, rational use of energy and the clean and efficient use of fossil fuels.



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European Commission

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## NOTICE TO THE READER

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (<http://europa.eu.int>).

The overall objective of the Community's Energy Policy is to help ensure the security of energy supplies for European citizens and businesses at competitive prices and in an environmental compatible way. DG XVII initiates, coordinates and manages energy policy actions at European level in the fields of solid fuels, oil and gas, electricity, nuclear energy, renewable energy sources and the rational use of energy. The most important actions concern the security of energy supply and international cooperation, the integrity of energy markets, the promotion of sustainable development in the energy field and finally the promotion of energy research and technological development through demonstration projects. DG XVII manages several programmes such as SYNERGY, SAVE, ALTENER and THERMIE. More information is available on DG XVII's pages on EUROPE, the Commission's server on the World Wide Web.

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