



# INTELLIGENT ENERGY

E U R O P E

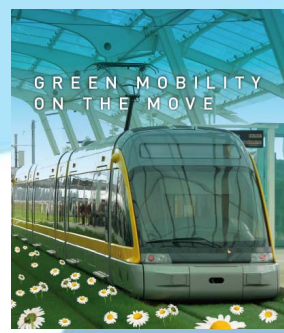
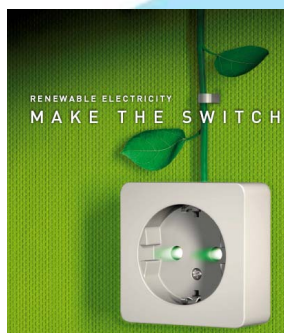
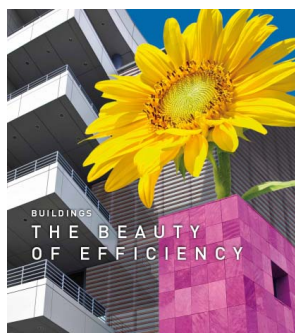
FOR A SUSTAINABLE FUTURE



## Intelligent Energy - Europe

### *Energy efficiency and Renewable energy*

*IEE pioneers new ideas and promotes best practices  
in buildings, industry, infra-structure and transport*



### **IEE delivers on:**

- > **Creating favourable market conditions**
- > **Shaping policy development and implementation**
- > **Preparing the ground for investments**
- > **Building capacity and skills**
- > **Informing stakeholders and fostering commitment**

## IEE EU Added Value

- > **IEE helps pioneers across the EU to deliver 2020 targets** by innovative market initiatives, shared best practices, cooperation on EU policy implementation, informing decision makers, promoting efficient use of proven products, systems and infra-structures, and triggering investments.
- > **IEE is designed for efficient use of public funding:** pooling skills from across the EU to achieve and promote results more cost effectively than any one Member State could manage on their own.
- > **IEE helps public and private stakeholders to make changes** at local level where 2020 targets must be delivered. (3.500+ applicants per year - 1/3 public, 2/3 private of which more than 70% are SME's). To date, IEE has supported 500+ projects with 3.000+ beneficiaries.
- > **IEE has proven track record of transforming markets:** accelerating uptake of certified products and services. Helping industries and ESCO's to promote trading of competitive products across the EU, tackle common market barriers, and improve transparency in the market through improved standards, labelling, and information campaigns (including web portals).
- > **IEE transfers knowhow and experience across borders:** helping more experienced local and regional teams to transfer their knowhow to other parts of the EU which have less experience eg new member states, thereby building new networks and facilitating trade and business opportunities, especially for SMEs.
- > **IEE projects support policy development and implementation:** strategic project teams provide technical inputs and market feedback to policy makers in EC and Member States. Concerted Actions provide fora for exchanging experience on implementation of Directives (ie buildings, energy services and renewables) and policies.
- > **IEE supports energy infra-structures:** Grid options developed in IEE projects contributed to EU Infra-structure Package. 80 new local and regional energy agencies have created focal points for EU energy policies in Member States.
- > **IEE projects and initiatives trigger investments:** IEE projects prepare the ground for investment by increasing skills, publishing information for investors, mobilising decision makers, and funding technical assistance. Building on this, the ELENA initiative (with EIB) is attracting a growing number of investment projects. In addition, contractors who signed IEE projects in 2010 estimated that 50 M€ from IEE could trigger a further 500 M€ of investments.
- > **IEE information reaches millions of EU citizens** in businesses, the public sector and at home: The IEE website attracts ~2 million page views per year, whilst other IEE funded web sites and portals (ManagEnergy, EU Sustainable Energy Week, ELTIS, Covenant of Mayors, BUILD UP, Clean Vehicle Europe, ELENA, and the 500+ IEE project web sites) add many more. IEE videos have been seen by more than 50 million viewers across the EU on TV.

## IEE Success Stories

### > Creating favourable market conditions

#### **More than 50% of solar collectors traded in EU are now labelled with Solar Keymark.**

Solar Keymark is the first internationally recognised quality label for solar thermal products. It was launched and further developed in IEE project "**Solar Keymark**". Project partners included Solar Industry Associations and national test centres. The resulting EU quality assurance framework is helping European solar thermal industries to contribute to 2020 targets. On 1st of January 2011 there were ~1350 Solar Keymark licences, and more than 1200 collectors certified.

***"We expect the Keymark to be the only European collector quality mark of importance and this will facilitate the creation of a single common EU market"*** - Dr.-Ing. Harald Drucek, Board of Directors ESTIF (European Solar Thermal Industry Federation).

### > Shaping policy development and implementation

#### **Blueprints of offshore grid designs for the Baltic and North Seas**

In the IEE project "Offshore grid", industry and experts from leading EU organisations propose offshore grid designs for 120 GW of offshore wind + marine energy in the North and Baltic Seas, including technical, economic, policy and regulatory aspects. They also produce cost estimates for typical generator locations, grid connection requirements, and market behaviours. The project is targeted towards European policy makers, industry, transmission system operators and regulators.

***"Offshore Grid" contributed to the preparation of EU Communication "Energy infrastructure priorities for 2020 and beyond - A Blueprint for an integrated European energy network"***

#### **"Concerted Actions" help Member States to implement EU Directives cost-effectively**

IEE Concerted Actions help the implementing bodies in Member States to network and share experiences with the transposition of EU Directives on Energy Performance of Buildings, Renewable Energy and Energy Services. National authorities from EU countries (and beyond) meet informally to discuss the most effective options for implementing these Directives. The discussions in specialist workshops also offer opportunities for the European Commission to work informally with Member States. The exchanges are often backed up with practical grass-roots experience from IEE projects. The Concerted Actions also attract attention from accession countries as well as countries such as China and the US and proved useful to facilitate the communication of a common EU approach towards these countries.

***"Participants of the EPBD Concerted Action unanimously welcomed the support and hints received from other Member States - as they all have comparable issues to solve"*** – Eduardo Maldonado, Coordinator of the EPBD concerted action.

After her study tour to Ireland, Wina Roelens (Flemish Energy Agency) stated on behalf of participants: ***"we had heard about national registries for buildings certification, now we understand them"***.

## > Preparing the ground for investments

### **Seven highly motivated European regions use IEE funding to develop their biogas potential.**

The IEE "**Biogas Regions**" project sought to develop biogas supply chains in seven countries, in particular through 14 pilot sites and studies. Regional action plans were adopted and assistance was provided to agricultural/food processing SMEs as well as to local waste management companies to start new businesses in biogas production. The project accompanied them from the first opportunity assessment through the feasibility study, authorisation procedure, contacts with investors, identification of technology providers, up to the signature of contracts for building the plants. The project triggered ~8 MW of new biogas production, and mobilised investments of ~ 40 million €.

***"Biogas is not yet a mature market in all Europe, so we need pioneers to take forward new projects in this area"*** - Valérie Borroni, Biogas Regions Project coordinator.

### **IEE funding helps preparing projects for structural funds and other investment funds**

In the project **Energy4Cohesion** eight regions mainly from new Member States collaborated to boost renewable energies and the rational use of energy in less developed rural areas of Europe, and to prepare the ground for the extended use of Structural Funds. The project demonstrated best practice by the design of comprehensive Master Plans for these regions. In addition 31 energy projects - corresponding to a total investment of 60 Mio € - which were identified and prepared for the submission to Structural Funds Programmes. Together with the IEE projects Clear Support, Promoscene and SF-EnergyInvest, this project also prepared the ground for the ELENA initiative, as the lack of financial means for the preparation of investment projects was identified as one of the major bottlenecks.

## > Building capacity and skills

### **IEE funding to institutionalise European energy manager training scheme "EUREM"**

With EUREM.NET the successful energy managers' course "EUREM" was expanded from three to nine more EU countries. In total 22 EUREM courses were carried out, all using the same method and standardised training materials. A total of 346 representatives from SMEs, larger companies and public institutions in the twelve countries were qualified as European Energy Managers.

The EU funding of 652000 € was used for updating and translating the course material, sharing knowledge on how to set-up and run courses. The courses as such were financed through fees. Thus the course is sustainable and indeed is replicated further since the end of the project. The funding triggered investments of about 90 million € thus having a direct leverage effect beyond 1:100, with an even larger longer-term leverage effect as these energy managers will implement further energy saving measures in their companies.

***"I learned the importance of a different mental attitude: a little more attention is crucial sometimes to achieve a major result"*** - Maurizio La Rosa from Olpidürr Italia Spa, who in the EUREM course prepared an investment into variable speed drives which saved more than 2550 MWh per year with a payback time of less than a year and annual cost reductions of 230000 EUR.

***"The course convinced me that there is still room for improvement and investment in energy saving is paying off"*** - Jiří Šubrt, from ZENTIVA a.s. a pharmaceutical company, who attended the EUREM course in the Czech Republic.

### **Certification of renewable energy system installers with mutual recognition in 6 countries**

The IEE "QualiCert" project is contributing to the development of common European certification schemes for installers of renewable energy systems in buildings, like biomass stoves and boilers, shallow geothermal energy systems, heat pumps, photovoltaics and solar thermal systems. Partners from industry associations and national agencies are working to deliver on the requirement of the RES Directive that Member States must have such certification schemes in place by 2012.

***"QualiCert will provide a "common denominator" for European national qualification schemes, based on extensive consultation of stakeholders*** - Anthony Dupont (ADEME), QualiCert project coordinator.

## **> Informing stakeholders and fostering commitment**

### **The Greenlight programme – Public and private organisations commit to reducing their lighting energy use**

Up to now over 600 cities and companies in 24 Member States committed to the Greenlight Programme, with about 100 of them coming from New Member States. In total by the end of 2008, these 600 organisations saved 241 GWh/year which corresponds to savings of around 24 million EUR in running costs. On average each organisation saved 689 MWh/year, or 36% compared to the level of energy consumption before introducing energy saving measures. The EU funding of about 1.4 million EUR was used to promote the Greenlight scheme across Europe and to develop handbooks and guidelines, while the investments were funded by the cities and enterprises themselves.

One of the 600 organisations is the City of Graz: The Greenlight Programme motivated the City of Graz to invest 435000 € into a pilot refurbishment of its street lighting, resulting in 60% savings. For this pilot the City of Graz received the Greenlight award in 2006. The gained experience and the received recognition triggered the city's own Greenlight programme 2010 of so far 2.3 million € investments, achieving a reduction of electricity consumption of 24%. For the implementation the city used Energy Performance Contracting, thus did not have to invest itself and immediately benefitted from cost reductions. The project was funded by local banks without subsidies.

***"We are proud of this project, which is not only a major contribution to increase energy efficiency and protect the climate but improves the quality of our street lighting and thus our road safety. And by using the Thermoprofit model the city's budget profits from the first moment"*** - Lisa Rucker, Vice-Mayor of the City of Graz, Austria.