

Energy efficiency representation in the EU: the missing links and options

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Abstract

All the stages of the energy policy cycle (debate, design, implementation and monitoring) involve a broad range of institutions. Increasingly, energy efficiency has regained a high priority in EU energy policies, notably underlined by the EC Green Paper on energy efficiency (2006)¹ and in the following Energy Efficiency Action Plan². The objectives of this paper will be to analyse the role and effectiveness of the energy efficiency industry and services representation in the energy policy cycle; and identify options for a most effective representation.

Introduction

Energy efficiency (EE) has regained a high priority in EU energy policies, notably underlined by the EC Green Paper on energy efficiency “Doing more with less” (2006) as the result of energy price increases, volatility, tensions on energy supply and pressing needs to reduce carbon emissions in order to limit the impacts of climate change.

Increasingly, EE appears as a viable, durable and cost-effective policy tool for both energy supply and demand sides, which is able to effectively reduce energy and import dependence. Furthermore, the EE industry and services sector has a significant potential to create value and decentralised jobs, in

line with the Lisbon economic agenda. Together with the renewable energy and carbon management sectors, it can provide also export sustainable energy solutions to other OECD and emerging economies.

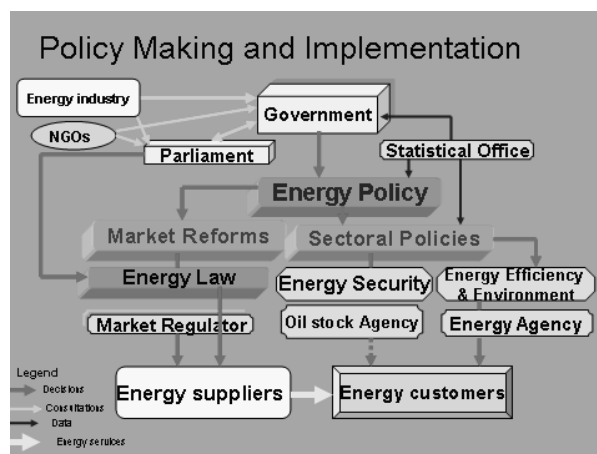
Being a key energy policy and development item in the EU, both at member countries and EU institutions, the question is if EE is adequately and efficiently represented. Considering what is at stake for the EU in terms of energy security, economic development and climate change, the question of the representation of the energy efficiency industry (equipment manufacturing) and services is of particular importance.

In a first approach, this representation appears quite fragmented and insufficiently heard in the energy policy debates on EU and sustainable energy. This is in contrast with North America where the Alliance to Save Energy has been an active focal point for EE for decades. Similarly, all EU energy supply sectors and companies have established strong representations in member countries and Brussels (e.g. Eurelectric), giving them a strong presence and influence.

The objectives of this paper will be to: analyse the role and effectiveness of the representation of the energy efficiency industry and services in the development of EE policies in the policy debate and implementation; and identify options for a most effective representation. Thus, it intends to be a contribution to stimulate a debate between relevant stakeholders.

1. http://ec.europa.eu/energy/efficiency/index_en.htm

2. <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/387&format=HTML&aged=1&language=EN&guiLanguage=en>



Graph 1: Energy Policy making and Implementation

Energy efficiency representation set-up and performance

ENERGY POLICY CYCLE

The government has the responsibility to conduct national energy policy from its design, enforcement and monitoring. In industrialised countries, the two main pillars of energy policy are market reforms and sectoral policies able to balance market deficiencies, including EE and energy security. A policy document and regulation are the main tools, which are supported and enforced by various public agencies, such as a market regulator and an EE/RE agency.

Graph 1 provides a simplified illustration of this energy policy sequencing and organisation.

Within the policy cycle, other stakeholders (energy suppliers and customer representatives, as well as energy equipment manufacturers and NGOs) play an important role. Indeed, they interact with the public administration during consultations and contribute to the debate and discussion on energy policy, and its enforcement (regulation, action plans, programmes... etc). This continuous process contributes to enhance information accuracy and circulation as well as to reach a broad consensus on policy priorities, which is required for their effective and durable implementation. During this process, stakeholders through their representation intend to influence the administration orientations and decisions. This part of the paper will look in more details in the organisation of EE and energy company representation.

Energy efficiency representation: focused on building material and equipment

Several important building insulation materials and equipment companies have established a representation both at national and EU levels.

Eurima

Created in 1959, the European Association of Insulation Manufacturers (Eurima³) represents the main mineral wool producers (Rockwool, Saint Gobain, etc...) at the EU level. Mineral

wool has been largely used for its good thermal and acoustic insulation properties.

Established in Brussels, Eurima's main missions, on behalf of its members, include to:

- Establish relations with policy and regulatory bodies, "exerting a positive influence in shaping regulations";
- Liaise with influential European interest groups and opinion leaders to develop common strategies and actions;
- Manage external communications;
- Inform members about existing and future regulations and other developments relevant to the industry's welfare.

The Eurima Secretariat is composed of six staff led by a General Director. One of its main tasks is to prepare and support the activities of three committees (Market Development, Technical and Health and Safety) made of association's members.

At national level, Eurima members together with other building material producers have created and developed representation initiatives such as the climate change "Isolons la Terre contre le CO₂" in France.

EuroACE

In 1998, major insulation material producers together with suppliers of energy saving equipment (e.g. Philips Lighting, Danfoss) and services (e.g. construction company Skanska) in the building sector established the European Alliance of Companies for Energy Efficiency in Buildings (EuroACE⁴). EuroACE has similar objectives and activities as Eurima with whom it shares the same office facilities in Brussels.

At the national level, the Association for the Conservation of Energy (ACE UK) is the British sistership of EuroAce. It was established in 1981 and includes mainly insulation material producers and major energy companies (EdF Energy, EON UK, Scottish Power). ACE UK includes also a Research Team.

Overall, the existing representation of EE industry and services appears focused on insulation materials and equipment for one sector, building. Even in this sector, at one exception, the Swedish building company Skanska in EuroACE, the growing ecobuilding segment is not yet represented. Beyond this, other important energy-efficient goods, equipment (e.g. condensation boilers, variable speed motors) and services (e.g. energy audits and advises) to other sectors (industry, transport) are not covered.

Comparison with other energy representations

In contrast to EE and demand side approach, the representation of the energy supply sector is far more comprehensive and structured both at national and EU levels.

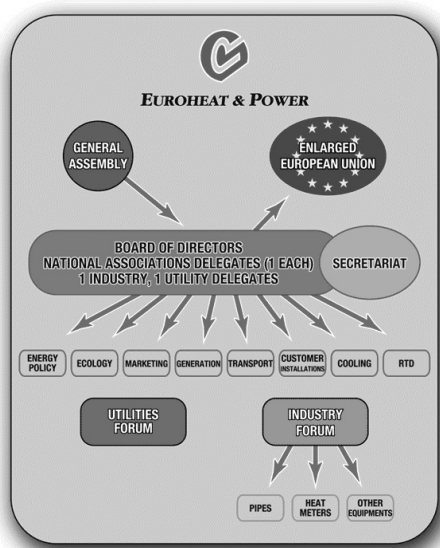
Energy supplier representation

National associations for oil products (refiners and distributors) have been active in each EU 15 for decades and since the 1990s in EU 8⁵. Generally, similar structures exist also for electricity, natural gas, nuclear and renewables (from small hydro-power to wind energy). In parallel, energy equipment manu-

3. www.eurima.org

4. www.euroace.org

5. Eight new Central European Member States, which joined in May 2004.



Graph 2: Euroheat & Power organisation (Source: Euroheat & Power)

facturers have established their associations by segment (power and heat generation, solar systems, wind turbines...etc.).

The representation of energy supply and equipment companies in Brussels is even more structured and denser and has gained a broad and strong influence in the EU institutions and its inner circle.

In a first place, the European Petroleum Industry Association (**Europia**) gathers the oil majors, which account for 90% of the EU petroleum refining capacity and some 75 % of EU motor fuel retail sales. Its Brussels Secretariat (around 20 staff), which is backed by a Board of Directors (15), Strategy Council (20) and a General Assembly can also rely on national associations as well as on its prevailing members.

Another major energy industry representation is **Eurelectric** (Union of Electricity industry), which merged UNIPEDE and EURELECTRIC in 2000. It represents 31 national members (electricity companies and federations of companies), including all 27 EU Member States. Eurelectric membership accounts for a vast majority of electricity generation and distribution in Europe.

Its structure is composed of a Board of Directors (32 representatives), a Secretariat of over 30 with a President and Secretary General, with both a deputy. Members gather in five main committees (policy, generation, networks, markets, environment) broken down in around 20 sectoral working groups, including on energy efficiency.

The European Transmission System Operators (**ETSO**) is an international organisation representing companies in charge of the electricity transmission grid.

Eurogas is more modest in size but its membership represents most of EU gas supply. The Board of Directors and Task Forces/committees are also supported by a General Secretariat. Gas Infrastructure Europe (GIE) is the equivalent of ETSO for natural gas.

Euroheat & Power represents at the EU level the operators and associations of combined heat and power (CHP), and district heating and cooling (DHC). It has a similar organisation (cf. graph 2) as other representations.

The European Atomic Forum (**FORATOM**) is the nuclear energy industry (equipment and nuclear energy supply) representation for 16 national nuclear associations, representing powerful international companies (e.g. Areva, Siemens, BNFL).

European Renewable Energy Council (**EREC**⁶)

Established in 2000, EREC gathers the main renewable energy (RE) equipment manufacturers, producers and research associations. It is “an umbrella organisation” in photovoltaic, wind energy, small hydropower, biomass, geothermal energy and solar thermal for:

- AEBIOM (European Biomass Association)
- EGEC (European Geothermal Energy Council)
- EPIA (European Photovoltaic Industry Association)
- ESHA (European Small Hydropower Association)
- ESTIF (European Solar Thermal Industry Federation)
- EUBIA (European Biomass Industry Association)
- EWEA (European Wind Energy Association)
- EUREC Agency (European Association of Renewable Energy Research Centers)

EREC members account for € 15 billion turnover annually and employ 250,000 people.

It is a focal point for discussion, dissemination and information on renewable energy at the EU level and outside. EREC intervenes on EU energy policy and regulatory discussions, notably through consultations, position papers, press releases... etc. It also organises events, publishes information material and studies, co-operates with foreign organisations and assists export initiatives. Also, EREC contributes its experience and expertise to EU and international studies and technical assistance.

EREC is structured on a Secretariat of 8/10 staff, including a president, a Secretary General and a policy officer.

Since 2006, EREC together with other RE associations (EU-FORES, Global Wind Energy Council ...) has moved to the “**Renewable Energy House**”, located in the European area of Brussels. Furthermore, this 19th century building has been renovated and retrofitted into an exemplary eco-building⁷.

Role and activities of energy company representation

The energy supply representations have a similar role in following and influencing policy-making and regulation preparation and enforcement through official activities (bilateral, meetings, consultations), conferences, media contacts through news releases, positions papers, notes... etc. Also, a clear lobbying activity to influence decisions-makers and experts in EU bodies is a crucial objective as outlined by one of them: “*Foratom acts as the voice of the industry in energy policy discussions involving the EU institutions and provide a “bridge” between the industry*”

6. www.erec-renewables.org

7. The 1,200 sq. m building minimises energy consumption (50 % less than initially) and uses now a broad scope of renewable energies: solar thermal heating and cooling, wood pellets boiler, photovoltaic panels and geothermal heat pump. Heating needs are fully covered by the building RE facilities and the purchased electricity comes from green electricity generators.

Table 1: Energy industry and service representations at EU level

	Scope	Staff	Influence/Visibility (1:low- 5: high)
1. Energy Efficiency			
Eurima	Insulation building materials (mineral wool)	6	2/3
EuroACE	Energy saving equipment in buildings	4 (estimation)	2
2. Energy supply and equipment			
Europaia	Oil refining and retail	20-25 (est.)	4
Eurelectric	Electricity generation, transport and distribution	30	4
Eurogas	Gas supply and distribution	5	3
EuroHeat & Power	CHP, DHC	5-8 (est.)	3
FORATOM	Nuclear supply and equipment	17	4
COGEN Europe	Cogeneration equipment and services	6	3
EREC	Renewable energy equipment manufacturers, producers and research	10	3/4

Sources: Annual reports, author estimations.

and the institutions (Members of the European Parliament and key policy-makers in the European Commission)⁸. These groups have managed to be omnipresent and influential on the “Brussels energy scene”. Interestingly, the associate costs remain limited for members considering their economic power. For instance, the Eurelectric annual membership fee for members with an annual turnover between € 10 million and € 1 billion is € 5,000, and € 7,500 for over € 1 billion turnover.

NGOs and other associations: can they fill the gap?

Also, a broad range of environmental and energy NGOs such as the WWF, Friends of the Earth, Greenpeace, INFORSE have actively supported energy efficiency in multiple forum, contributing to promote it as an essential policy tool. Some NGOs, which have an office in Brussels have been occasionally consulted by the EC on policy and even regulation preparation related to EE, when no industry representation could be identified.

Other associations, such as the European Council for an Energy Efficient Economy (ECEEE), an independent policy oriented non-profit organisation have actively advocated for effective EE policies. Similarly, at country level, organisations like Négawatt in France have played a growing role.

Also, in spring 2006, a group of European parliamentarians promoted the concept of an “Energy Efficiency Watch Initiative”, whose main objective is to monitor the implementation of EE policies in the EU. These organisations and initiatives have been usefully contributing to enhance the profile of EE at the policy level. Nevertheless, they have also clear limits in being able to sustain the demanding representation scope and commitments considering their limited resources and knowledge of the full range of the EE spectrum. Furthermore, NGOs do not generally have the capacity to represent EE companies and their interest, neither to cover a broad scope of issues and projects at the same time and sustain lengthy dossiers.

EE representation: limited in scope and impacts

Overall, over the last decade, the limitations in scope of the existing EE representations, which are mainly limited to Eurima and EuroACE, have largely prevented to make EE more visible and have an effective and durable impact in the policy debate and regulation elaboration. They have also largely prevented to develop a global, coherent, proactive and influential EE. The lack of EE representation has been aggravated by the strength and power of the energy supply company lobbies.

This insufficient scope in the coverage of the existing EE representation appears as a clear barrier for a coherent, global and effective voice of EE in the EU energy policy public debates, regulation preparation and enforcement. Therefore, this representation could hardly influence energy policy orientations beyond its current scope of coverage, focused on insulation material and equipment for buildings, leaving uncovered most of goods, equipment and services. This was the case with an energy supply-oriented European Commission (EC) until 2004, when a stronger EE voice could have balanced the debate in favour of energy demand and EE. Since then, the current EC, under the leadership of Commissioner Piebalgs has been remarkably proactive towards a more balanced and sustainable energy policy, providing a key role to EE in its Green Paper on energy efficiency “Doing more with less”¹⁰ and its subsequent Action Plan (2006)¹¹. For these key decisions, a strong and global EE counterpart is needed to provide concrete, comprehensive and substantial comments and suggestions on the EC proposals. As a result, EE has largely remained an issue for governments, the EC and experts, and little in the business community, although its implementation would need the active participation of business stakeholders.

An illustration of the representation gap between EE and other energy items has been the European Commission’s Directorate-General for Energy and Transport initiative to organise the first EU Sustainable Energy Week (EUSEW¹²) in Brussels and other European cities (29 January- 2 February, 2007) with numerous events and initiatives. At this occasion, EREC

8. http://www.foratom.org/index.php?option=com_content&task=view&id=12&Itemid=285

9. <http://www.eufores.org/index.php?id=97>

10. http://ec.europa.eu/energy/efficiency/index_en.htm

11. <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/387&format=HTML&aged=1&language=EN&guiLanguage=en>

12. www.eusew.eu

decided to organise the European Renewable Energy Policy Conference¹³, a large and broad event, gathering major EU, national and international decision-makers, including the EU Energy and Environment commissioners. In contrast, events on energy efficiency appear covered more technical and narrow issues with much lower profile.

Options for a stronger energy efficiency representation

This part will assess some possible options to enhance EE representation at EU level of the EE industry and service companies. Overall, this representation would be a global and effective support for EE as well as a counterpart to supply energy representation. A global EE representation would have the core objectives to intervene and influence the EU energy policy debate and discussion in advocating for ambitious, realistic and detailed EE objectives. It would also ensure that stricter and further regulation (e.g. minimum performance standards, labelling) and incentives (e.g. fiscal) promoting EE, is effectively developed. When needed, it would provide an effective counterpart to energy supply representation and companies, notably by responding to their arguments to limit EE policies and proposing innovative and solid solutions. A global and robust EE representation would opportunely closely monitor the implementation process of the policies and legislation, including effective compliance.

OBSTACLES AND PERSPECTIVES

Over the last decades, several attempts, led by groups of industry representatives, NGOs or consultants, have been initiated to develop a more comprehensive EE representation. Unfortunately, these attempts were not able to go beyond the consultation phase.

A real obstacle in the development of an adequate EE representation relies in the transversal and diffuse dimension of EE in goods, products and services. Thus, their energy dimension remains only an aspect aside from their main purpose (e.g. lighting for a bulb). Also, other factors, such as design, security, flexibility applications (e.g. regulation) may have an influence. Furthermore, large manufacturers (e.g. Philips, Siemens) generally design and produce a broad diversity of goods and equipment of which a large number is not yet covered by minimum energy performance and labelling systems. As a result, the fragmentation of both the energy-efficient market segments and manufacturing industry, also increasingly internationalised, is a clear barrier to structure a broad and robust EE representation.

Nevertheless, improving energy efficiency or developing low-energy consumption products and services has appeared as an increasingly important selling argument, even reinforced when there is a label (e.g. EU appliance label and Energy Star for office equipment). Also, goods that are clearly identified as energy-efficient, such as Compact Fluorescent Lamps (CFL), LED's and ecobuildings, have rapidly gained market shares and offer vast potential. At the same time, their larger penetration

depends greatly on the existence of standards (lifetime, quality etc) and EE regulation (EU energy label and Energy Star).

For EE services, the situation appears more homogeneous for which engineering, consultancy and financial companies can better differentiate their EE operations. Some of them have been building their development on a broad range of EE services to multiple clients (public administrations, international donors, industries, architects, real estate developers) in various sectors (energy, building, industry, transport).

Therefore, for existing and potential markets for identified energy-efficient goods and services, a representation of their companies would collectively better position in the policy debate and regulation elaboration. A key element is to demonstrate the technical and economic viability of integrated EE solutions in goods and services.

IMPLEMENTATION STEPS

This section would suggest possible approach and options to reinforce EE representation. Obviously, it only provides a perspective among other numerous ones but intends to cover essential issues in an eventual implementation phase.

Initial contacts and gatherings

A pre-requisite to initiate the process leading to establish an effective EE representation is to reach a critical mass of companies agreeing to develop this initiative. Also, in the policy cycle, the concept of critical mass for EE expertise has been developed by Bernard Laponche, energy policy expert, who underlined the need of adequate qualitative and quantitative expertise to be able to effectively design, implement and monitor EE policies¹⁴.

In this effort to contact and gain support of a sufficient number of partner companies, various ways may be used, including:

- The existing EE representations (Eurima, EuroACE) and eventual additional EE industry and service companies approach other potentially interested companies; and/or
- A core group of companies together with a Support Group (*to be established*) of independent personalities and experts supporting EE contact the main companies possibly through an announcement in relevant media and a provisional web site.

Then, the interested companies would gather to further discuss the opportunity, objectives and concrete steps of the initiative, including the opportunity to establish, within the participants, a *Study Group*. Its main task would be to develop Terms of Reference (ToR) for a feasibility study. A meeting with the Support Group may also be organised to exchange views and ideas.

Potential partners: EREC¹⁵, ECEEE, economic think tanks, private foundations will be approached to identify areas of synergies and co-operation.

13. www.erec-renewables.org/documents/2007_EREC_Policy_Conference/conference%20programme%20final.pdf

14. BISE Forum, Grenoble, 2004

15. EREC and RE companies logically support EE, a key to sustainable energy.

Table 2: Main implementation steps

Steps	Objectives	Realisation by	Outcomes
1. Initial contacts and gatherings	Identify and contact companies	Eurima, EuroACE and/or Support Group	List of EE companies Meeting agenda and date
2. Initial meeting(s)	Gather main stakeholders and adopt programme	Eurima, EuroACE and/or Support Group Partner companies	Meeting minutes/conclusions
3. Study ToR on EE representation	Define study ToR	Study Group with Support Group	Study's ToR
4. Study results	Deliver comprehensive and accurate study	Study Group	Study report and conclusions/recommendations
5. Decisions and implementation	Decide on next steps	Study Group with Support Group Partner companies	Agreed conclusions/action plan

Feasibility study

The Study Group would develop the ToR for an internal study, which will cover all important aspects of the establishment of a focal EE representation. The ToR would include at least the following items (*author proposal*):

- Study objectives: assess the options and modalities to establish an effective, cost-effective, durable and EE representation in the EU;
- Possible missions: representation of members, analysis of energy and EE topics, participation in EE and energy policy debate in particular promoting ambitious, realistic and detailed EE objectives, contributing to regulation and incentives design and enforcement, provision of information to relevant organisations, including the press. A key issue would be to assess the possible organisational options among including US Alliance to Save Energy model, Eurima/EuroAce expansion, EREC model;
- Barriers and risks assessment of project;
- Learning from previous experiences of energy representations in other sectors, in particular EREC;
- Set-up and organisation options: status, form (e.g. federation, council, association), staff profiles, structure including a specific study/research component (e.g. unit, institute) to provide analysis, support, national focal points and partnerships;
- Exemplarity: on the model of the EREC Renewable Energy House, consider an office in an ecobuilding (new or renovated) with higher energy performance (low, passive, positive if RE use possible and economic on global cost), using most efficient appliances and equipment available on the market provided being cost effective. The commuting options for the staff will favour public transport, bikes and car-sharing;
- Budget assessment and options for at least 5 years;
- Action plan for realisation with detailed steps: Study schedule, main steps and deliverables;
- Study needs and funding: evaluate investment and running expenses, propose cost sharing methodologies between company partners and explore EU co-funding opportunities of the study, in particular Energy Intelligent Europe (appropriate facility to be identified) and private foundations.

Preferably, the study would be led and carried out by the Study Group, with eventual assistance from the Support Group.

Decision phase

Once the study completed, the Study Group will present its results to the partner companies, which will decide of the eventual next steps.

Potential partners: EREC, Brussels Environment (for office renovation), economic think tanks, private foundations.

Conclusive Remarks

A comprehensive and effective EE industry and services representation at the EU level and then at national levels would advantageously complete the existing EE structures. This business representation with analytical capacities will have to be a focal and reference point for EE, broadly and durably enhancing the credibility of EE. At the example of EREC for renewable energy, it should actively and positively intervene and influence the EU energy policy debate and decisions, and closely monitor their enforcement.

Nevertheless, barriers remain numerous to initiate and conclude this initiative for which it is key that a core group of EE companies to jointly lead the initial study stage. This objective seems timely and certainly achievable considering the rapid development of EE businesses and the large number of existing energy representations. At a key period for the EU energy policy, in particular its orientations on energy and climate policies, which will impact beyond the EU and energy, its EE business has a crucial role to play in designing and selling effective solutions as well as take in taking an active participation in the policy debate, and its enforcement.

Glossary

- EC: European Commission
- ECEEE: European Council for an Energy-Efficient Economy
- EE: Energy efficiency
- EREC: European Renewable Energy Council
- EU: European Union
- NGO: Non-Governmental Organisation
- RE: Renewable energy