



Kortenberg, 27 October 2011

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## AIE comments on the proposal for a DIRECTIVE on energy efficiency (COM (2011) 370)

### INTRODUCTION

Together with its 19 national member associations, the AIE - the European Association of Electrical Contractors – is most committed to the EU's 20-20-20 targets and fully supports the Commission's initiatives to achieve these.

The proposed Directive on energy efficiency establishes a **common framework for promoting energy efficiency** in the Union to ensure the target of 20 % primary energy savings by 2020 is met and to pave the way for further energy efficiency afterwards.

The AIE welcomes therefore the Commission's commitment to the achievement of the European Union's energy efficiency targets and the creation of a framework to promote energy efficiency in the Union beyond 2020. We strongly believe that Member States should have more political faith in a common EU Energy policy and take the necessary steps accordingly at national level to implement and achieve the targets set.

The AIE represents the Electrical Contracting Industry in Europe which comprises about 175,000 enterprises, of all sizes but including a very high proportion of SMEs and micro businesses, having a combined turnover in the order of 70 Billion Euro and a workforce of more than 1,000,000 people.

The work of these enterprises installing electrical, electro technical and electronic systems includes a whole range of activities, for example:

- power generation
- home and office networks
- information technology and telecommunication systems
- fire and security systems
- central management processing
- integration of renewable energy sources (heat pumps, photovoltaic systems etc. )
- indoor and outdoor lighting

- access control
- automation and active control systems
- integrated energy management, monitoring and metering systems.

Beyond delivering these activities, competent electrical engineering entrepreneurs provide customer tailored advice and service/ project design/ system installation and integration, maintenance and services.

Within electrical engineering in general, the AIE has identified the Building services as the area wherein electrical contractors can contribute significantly to the European sustainability agenda and in particular the CO<sub>2</sub> economy.

Their potential role in **advising** as well as **providing, installing and maintaining energy efficient solutions** can play a significant part in the achievement of the European energy efficiency targets. These companies employ electro technical operatives qualified to the full industry-recognised level in the States concerned. Their expertise in all the fundamental electrical and electronic disciplines equips them to perform the site work required to bring the energy efficiency of the Union's built environment up to target!

Because of their relatively small size they will be challenged to achieve the necessary financial backing. The Commission should therefore encourage funds and financial institutions to provide easy access to suitable financial support for such firms, or groups of firms.

## ***SUBSTANTIVE COMMENTS.***

### **Definitions (art.2):**

The AIE warmly welcomes the 'definition of energy service provider' and understands that many of its members are/will be 'energy service providers' as defined. They may, subject to the financial issues and risk taken, also undertake energy performance contracting or be an energy service company.

The **built up close relationship and direct contact with their customers** gives the contractors' companies an exceptional potential to understand the needs of the customers and to provide – as mentioned supra - customer tailored & appropriate advice, to private householders, commercial, industrial or public entities. They have the huge potential to act as **energy service providers** in a number of ways.

The AIE strongly welcomes the 'definition of energy service provider' in the Directive and definitely prefers this definition than the previous energy services company (ESCO). Beyond the economic importance of this major sector, including many micro, small and medium sized companies, companies in our sector have great potential as energy service providers and performance contractors.

Proposed amendment:

Article 2.3 'energy service' means the physical ....., which may include **the specification, installation**, operation, maintenance and control necessary to deliver the service .....

**Energy efficiency targets (art.3):**

A binding target for energy efficiency should be maintained for Member States and all necessary means should be put in place to achieve these, though we understand the difficulty for Member States further to the current financial pressure on national budgets.

*No amendments proposed.*

**Public bodies (art.4):**

We applaud the emphasis given to the role of the public sector in improving energy efficiency and by imposing a target of 3% for annual renovation of public buildings. There seems however to be an inconsistency between the definition of 'substantial refurbishment' (art.2.27) and the 'renovation' term which is not further specified in article 4.

Recognising the European Union cannot set rules for private renovations, Member States should equally be recommended to encourage private building owners to reduce their energy bill and to enhance investments in private buildings through financial schemes, tax incentives or funds.

Proposed amendment:

Article 4.1: Without prejudice of .... total floor area owned by their public bodies is ~~renovated~~ **substantially refurbished** each year.....

**Purchasing by public bodies (art.5):**

We applaud that the emphasis should be the importance of long term energy efficiency and other performance rather than lowest initial price. Professional installers are continually **undermined by inadequately qualified operators quoting unfeasibly low prices**. The opportunity exists in this piece of legislation to determine that the main emphasis in future will be on and **life cycle costs with best value for money** for the customer, not only the lowest cost.

We recommend that opportunity be taken in the Directive to require the Procurement authorities of Member States to further require contractors bidding for Public Contracts to also undertake apprentice and management training. We believe that this will encourage and add value to competent SMEs in this very important sector and build vital

capacity within the EU, but also drive out of the market companies that are not investing in training and therefore bidding at a lower price.

Proposed amendment:

Annex III e) to **add:**

**'require in their tenders for service contracts that service providers present their apprentice and training credentials'**

### **Energy efficiency obligation schemes (art.6):**

We understand that the Utility companies are given the responsibility for achieving National energy efficiency obligation scheme with reduction targets of 1.5% each year.

The obvious conflict of interest – to reduce energy while their core business is to produce and sell energy – will inevitably result in a distortion of market forces and interests. Giving Utility companies the role and responsibility to reduce energy consumption will transform the market forces and change the 'energy sellers' into 'sellers of energy efficiency'. Obviously Utility companies will be forced to sell energy efficient measures related to technologies, hereby entering an existing contracting market of thousands of SME's.

As much as we are convinced that Utilities have to largely contribute to the energy efficiency targets, as much we are certain a large number of existing contractors companies won't be able to compete with the pressure of the large and sometimes monopolistic Utility companies.

Indeed, Utility companies have the benefit of the energy data consumption and therefore first hand information regarding the customer's energy consumption. The principles of market economy oblige us however to believe that the few and large utility companies are not necessarily structured and in the best position in terms of credibility towards the customer. The major threat we believe for the vast community of smaller and locally based contractors companies is the development of the energy saving market being controlled by the Utility companies.

In countries such as Denmark, too much market influence and control of Utility companies have already led to unfair competition and market distortion between existing installation companies and new installation departments set up by Utility Companies. E.g. unfortunate consequences of this model in Denmark have led energy companies to use energy efficiency funds for their own employees or as grants for 'good customers', which gives them a competitive advantage towards other players. In Germany, a similar development is experienced as in Denmark.

If the - mainly monopolistic structured - energy utilities are obliged to save energy without further controls it will inevitably result in price rises that would disadvantage, especially the needier members of society.

The achievement of **end-use** savings should be driven by consumer's responsibility well advised by independent qualified experts. We believe the best means to achieve energy savings, is through the effective encouragement of consumers to adopt installations and equipment of the highest energy efficiency. To achieve these safely, it requires the engagement of fully qualified specialists in competent Electrical Contracting companies across Europe.

### Recommendation:

The AIE supports to have energy saving obligation or equivalent schemes as long as they are based on principles of open, transparent and **free competition** and a **safeguarded level playing field** for all market players.

Utility Companies are clearly likely to have a role to play, but there should be clear **distinctions** between the commercial entity and any part of their organisation participating in the pursuit of energy use reduction.

The **access to the meter data and energy consumption data** should be free – see infra.

The role of the electrical engineering contracting companies as energy advisers and energy service providers should be recognised as having a significant contribution to make in achieving best value for clients especially in providing cost-effective design solutions that best meet clients' needs.

#### Proposed amendments:

Article 6: **Add** between 6.7 and 6.8:

***'Member states shall ensure free competition between all market players by:***

- having a clear distinction between the commercial entity and any part of the energy distributor companies participating in the pursuit of energy use;***
- delivering the access to the energy consumption data according to article 8;***
- permitting to count the energy savings obtained by other energy service providers and market players according to article 6.5 (b)'***

### **Energy audits and energy management systems (art. 7):**

The AIE applauds the introduction of Energy Audits; the legislation must specify that the independent experts who carry them out should be fully qualified to audit building services (engineering) solutions to achieving energy efficiency. Electrical contractors are already available to carry out this function.

Member States should extend the compulsory energy audit to smaller enterprises and households as fast as capacity and financial constraints permit.

#### Recommendations:

It would most socioeconomically advantageous to use electrical contractors and other craftsmen to perform energy efficiency at SME's and private households.

#### **Metering and informative billing (art.8):**

Better informed consumers will enhance a more responsible behaviour towards their energy consumption, whilst simultaneously increase the interest and use of new technologies and renewable energy sources.

Therefore the AIE supports the roll-out of smart meters. It will help consumers to better understand how much energy they consume and where, how much it costs, how it varies over time and thereby enable them to act so as to change their energy behaviour, enhance energy savings and reduce their energy bill.

The smart meter is not only a means of monitoring and accounting consumption once energy efficient equipment has been installed; it is also the source of important information for advisers, designers and potential installers **before** the improvements have been made.

However the implementation and change of (smart) meters in some Member States such as Italy and Sweden didn't result in more and better informed customers. The benefits have only been for the electricity providers. Smart meters must be based on open standards to avoid that only energy companies can provide the equipment. Moreover the AIE is convinced that the full control for the customer of his energy consumption will only happen if the information flow is done in an appropriate way.

**The current draft proposal reads unfortunately as if the information and data of the final customer's energy production/consumption is not of his ownership;** indeed, if the information/data will be made available 'ONLY upon request' and 'ON BEHALF OF' the final customer to a third party or a designated energy service provider, this gives a distorted image of who is owner of the information/data and the use of these. Moreover, this is enhancing a 'reactive' rather than a 'proactive' behaviour of the final customer!

Obviously some of the data and information should be directed **to the electricity utilities**. This will allow more transparent, accurate and clear electricity bills and should encourage the electricity utilities to offer a wider range of tariffs and pricing options.

Nevertheless the ambiguity in article 8 regarding the monitoring, metering and use of private information and data will result in huge benefits for the energy utilities and unfair competition between the different market players in the energy services market because of first line insider's knowledge.

### Recommendation:

- The data collected by the smart meter should be based on open standards and the data information flow should be bidirectional, with clear separate information for the electricity utilities and the customers.
- To enable and give easy, automatic and free access to the data information to the energy services provider designated by the customer as to propose improvements on the energy consumption of final customers.
- The implementation of smart meters should oblige the electricity utilities to offer a broad and flexible range of prices and tariffs.

### Proposed amendments:

Article 8.1 par. 1: 'Member States shall ensure .....that accurately measure and ~~allow to~~ make available their actual energy consumption.....'

Article 8.1 par. 3: 'In the case of electricity ~~and on request of the final customer~~, meter operators shall ensure .....

Article 8.2 par. 1: '.....**Appropriate Accurate and detailed** information shall be made available with the bill .....

### **Promotion of efficiency in heating and cooling (art.10):**

We respectfully suggest that the Commission should encourage Member States to use the qualified individuals employed by Electrical Contractors to carry out the required electrical energy audits, the assessment of potential for CHP and its installation, district heating and cooling plans and other relevant work within their competence. As noted elsewhere, the wide distribution of contracting companies and their integration into their communities provides an 'army' of specialists, already substantially trained and in the field; and they are particularly well placed to address community and local schemes.

### **Energy transmission and distribution (art.12):**

We believe that Grid Reinforcement is urgently required, across the EU, in the electrical distribution system to accommodate the new distributed form of energy supply, particularly from micro generation/renewable energy systems.

The AIE believes that the role of the Distributors in achieving greater efficiency of **distribution** should be encouraged.

### -Recommendation:

We recommend that a substantial proportion of any extra profits made by suppliers and distributors should be recycled into energy efficiency incentives, designed to maximise energy savings by customers.

*No amendments proposed.*

### **Availability of certification schemes (art.13):**

As drafted, this article requires Member States to “ensure that **certification schemes or equivalent qualification schemes** are available for providers of energy services, energy audits and energy improvement measures including for installers....”

This wording is similar to that used in the Renewables Directive, where it has already caused confusion, revealed some misconceptions on behalf of the drafters and created the risk of adoption of unnecessary and potentially inadequate and damaging certification schemes. We believe that it is essential to distinguish between the **qualification of individuals** and the **certification of companies** to operate safely and effectively.

For installation, audit, and the provision of all energy services involving electricity we assert that the absolute bedrock of safety and competence is the sector-recognised qualification standard for the **individuals** operating on site. While the details differ between Member States, the objectives of these standards are the same.

The competence which they guarantee provides the bulk of the required skill and knowledge to deal with emerging sustainable and energy-efficient electro-technologies. Electrical engineers are used to continual up skilling to ensure that they are competent in the latest developments.

If certification of the **companies** for which those individuals work is necessary, then the main requirement should be that they employ properly qualified operatives and not be too costly.

Knowledge of particular novel technologies or techniques may need to be gained as they appear, but we reject any need for further proliferation of commercial certification schemes. **Energy efficiency, safety and the EU economy will not be served by any further certification schemes that duplicate or ignore established qualification standards** or which address specific technologies in a way that unnecessarily fragments electrotechnical work.

It will only add an additional administrative and financial burden and endanger the businesses in a yet difficult economic landscape and hence the economic and social contribution of thousands of SMEs in our sector.

It should be noted that there are differences of detail between the qualification regimes and attitudes to certification in the various Member States which it will be very hard to iron out. Speedy adoption of an accreditation regime that works in Europe is too important to allow it to stall in negotiations aimed at harmonisation. Rather, the Directive should set out the above principles and allow Member States to operate their systems on the basis of mutual recognition.

### Recommendation:

- We therefore urge the Commission to give proper recognition to the prime importance, in establishing the credentials of companies working on electrical energy efficiency, of sector-led individual qualification in the broad range of Electrotechnical work. Without such recognition there is a significant risk that duplicative and/or inadequate commercial certification regimes already developing in some Member States will grow out of control.
- We recommend that the text be amended to give proper emphasis to the bedrock of safety and performance in this sector, which is qualification of individuals working in electrotechnical disciplines to the proper standards recognised by the sector stakeholders in each Member State.

### Proposed amendments:

Article 13.1: *'With a view of achieving a high level of technical competence, objectivity and reliability, Member States shall ensure that, by 1 January 2014, ~~certification schemes or equivalent qualification schemes~~ any scheme of certification of companies is based on individual technical qualifications recognised by the sector for providers of energy services, energy audits and energy efficiency improvement measures, including for installers of building elements as defined in Article 2(9) of Directive 2010/31/EU.'*

Articil 13.2: *'Member States shall make publicly available ~~the certification schemes or equivalent qualification schemes~~, the schemes of certification of companies as defined in paragraph 1,....'*

### **Energy Services (art.14):**

Likewise the proportion of SMEs in the Contracting Sector delivering yet energy services is very high. They are particularly well placed to advise other businesses and their own economic health is vitally important to the European economy. It is important that external decisions (for example to favour utility companies in energy efficiency initiatives) should not inadvertently damage this sector, and hence its role in the overall European economy.

*No amendments proposed.*

### **Conversion factors (art.16):**

We question the table in annex IV where the conversion factor for electricity is set to 1. It is in a footnote that it is stated that for savings in kWh electricity Member States may apply a default coefficient of 2.5 provided they can justify it.

The proposed use of a default Primary energy factor (PEF) of 2.5 is a discrimination against electricity and the use of electrical products. Hence, it will favour gas over renewable generated electricity such as wind or hydro.

The conversion factor expresses how much primary energy is needed to generate electricity. Applying the same default factor now as before the adoption of the climate-energy package implies that the electricity mix is not evolving - and is inconsistent with

long-term EU policy targets, amongst which the RES Directive and national choice in terms of energy mix.

Moreover, this factor creates a perverse preference for using fossil fuels instead of electricity for transport, heating & cooling, etc., thus increasing import dependency and carbon emissions."

We therefore challenge the use of this value without the necessary objective justification.

On the one hand electricity consumption does not cause any CO<sub>2</sub> emissions at the *end-user* side, and, on the other, emissions from the *production* of electricity are covered by the EU Emissions Trading Scheme (ETS). Hence, electricity is a CO<sub>2</sub>-neutral energy carrier. In this sense, electricity savings do not lead to CO<sub>2</sub> emission reductions.

Secondly, we would like to underline that it is likely to be necessary to *increase* the use of renewable and emission free electricity in order to reach the EU's climate and energy goals. Indeed, the switch to a very large share of electricity is foreseen, for instance in the Roadmap 2050 for a low-carbon economy. In this context, while it is certainly desirable to increase, where possible, the electricity delivery efficiency, this should by no means be an argument in favour of discriminating against electricity and favouring gas.

#### Recommendation for amendment:

- The AIE strongly believes that the appropriateness of setting a default Primary energy factor of 2.5 for electrical energy should be reviewed. It is based on the assumption that all electricity is produced by fossil fuels in condensing power plants which is not true in any of the member states. Using this factor neglects the role of renewable electricity and slows down the development and inauguration of solar, wind, hydro and biomass electricity production.
- If some factor for different energy forms has to be defined it should be based on CO<sub>2</sub> emissions. This will contribute to the implementation of renewable energy sources and decrease CO<sub>2</sub> emissions. The CO<sub>2</sub> factor can also be unambiguous technically defined and defended.
- There should not be one common factor for whole EU. Instead the factor has to be defined separately for each member state as the structure of electricity production varies remarkably between member states.