

# **DEVELOPMENT of ENERGY CONSERVATION LEGISLATION & REGULATION on EU LEVEL - an INDUSTRY VIEWPOINT**

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Since the 80's, the European Commission recognises that buildings represent about 40% of the total carbon dioxide emissions (see infra), and thus that vigorous energy efficiency in the building sector could reduce both the air pollution and the dependency on energy sources: yet, actions did not follow the words. Therefore, the first part of the presentation is a short overview of the historical background in order to clarify the present situation.

## **Back in time**

The origin of the EU's energy policy is the Coal and Steel Treaty as well as the EURATOM Treaty. Both Treaties are based on the concept of supply policies. When the 3 Treaties were merged (Coal and Steel Treaty, EURATOM Treaty and the Common Market or Rome Treaty) into the European Community, a new Directorate-General 'Energy' was created (DG XVII) and the staff of this new Directorate-General came predominantly from EURATOM staff. The paradigm of a supply based energy policy was not questioned. Later, this DG Energy amalgamated with the DG Transport.

When Denmark joined the Community in 1973 (together with the United Kingdom and Eire), questions about the wisdom of the EC's energy policy started to be ventilated at ministerial level. Denmark had (and still has) an energy policy based on the combination of both supply and demand measures; Eire on the other hand had a supply based concept but refused and still refuses nuclear power plants because of the links with nuclear weapons technology. Up until this first enlargement, France held the intellectual high ground with its emphasis on nuclear energy. The entrance of Denmark and Eire, and the growing anti-nuclear movement (mainly in Germany) cooled the EC's enthusiasm for nuclear and its associated supply based energy policy (1).

At this stage, it is crucial to realise that all decisions of the Council of Ministers on European energy policy require unanimity! Such was the case since the start of the Community, such is still the case to day under the regime of the Amsterdam Treaty (see infra) Needless to emphasise that after the first enlargement it was very difficult to find unanimity in the Council of Ministers; hence a deadlock.

## **Energy audits in buildings:**

Under influence of its new Member States, the European Commission mentioned the potential of energy savings in buildings in a policy document in September 1986; one year later, the European Commission formally proposed a Draft Directive on Energy Audits in Buildings (COM (87) 401 final). It was a prudent step forward; the proposal was not about insulation standards but only about making energy use in buildings (and the costs associated with it) better known to the potential buyer of a house.

Denmark was the President of the Council of Ministers in 1988, and it was the clear hope of the European Commission that it would use this High Office to push the draft Directive through the Council; all was in vain. The draft Directive was withdrawn due to lack of unanimous support in the Council.

I mentioned already that within the Council of Ministers there are fundamental different views between the supply side politics and the demand side politics. But there is another reason as well why the Council has difficulties in finding unanimous agreements, and that other reason is subsidiarity. In many Member States energy efficiency in buildings is not within the competence of central government (and regional government do not allow central government to 'negotiate' in Brussels about their affairs), combined with a growing tendency for re-asserting the national competencies and nationalistic policies. This is the matter of 'subsidiarity' and it has played a growing role in the (non-) making of a European energy policy. To day, energy policy in Europe consists of a few supranational aspects and a large number of decentralised realities.

The idea of energy audits for buildings re-appeared in the European Commission's SAVE proposals (Communication of the Commission of 12 May 1989); SAVE stands for Specific Actions for Vigorous Energy Efficiency. Thirteen action items were proposed, 10 of these items concerned the building sector. In the end, the Council of Ministers addressed the draft Directive and only six actions were approved (Council Directive 93/76/EEC):

- energy certification of buildings;
- billing of heating, hot water and air-conditioning on the basis of actual consumption;
- third party financing for energy efficiency investments in the public sector;
- thermal insulation of buildings;
- regular inspection of boilers;
- energy audits of undertakings with high-energy consumption.

The way these action items are carried out is entirely the responsibility of the Member States; the Directive does not bring about any obligation for results whatsoever, it only obliges Member States to make an effort (but the Directive is not specific on the kind and the level of the effort). The Directive contains an obligation for regular reports by Member States to the Commission, and the obligation of an evaluation of the national programmes by the Commission (to be sent to the European Parliament) but these clauses in the Directive have not been respected by the Member States nor, *a fortiori*, by the European Commission. The European Commission has commissioned a report by external consultants on the implementation of SAVE 93/76/EEC and these external consultants reported in February 2000 (Rodney Janssen Associates). Their conclusions are unequivocal

- The Directive had least influence in the field of thermal insulation of new buildings, where Member States have been active even without the Directive
- While many measures have been revised in the past few years, it is debatable as to the role of the Directive in encouraging such revisions.
- The Directive continues to have an indirect benefit in a number of Member States by preventing measures from being terminated or weakened due to various budgetary or administrative reasons.
- Et cetera.

The assessment thus is a poor 'pass' grade. The consultants also recommend a number of measures to be taken by the Commission in order to turn SAVE 93/76/EEC as an effective policy instrument. The common line amongst these recommendations is that it requires action by and political courage of the European Commission in order to force the Member States to implement SAVE. Yet, precisely the latter is lacking.

Yet, the SAVE Directive (93/76/EEC) opened a perspective for energy savings in buildings. For the Directive is based on articles 130s and article 235 of the Rome Treaty; article 235 was (at that time) the 'catch all' article for environmental protection in the EC. In other words, the SAVE Directive created the precedent of European legislation for energy savings to be based on environmental requirements; this precedent was endorsed by the Council of Ministers.

### **The environmental dimension:**

The word 'environment' is not even mentioned in the original Rome Treaty (1957). But the European Community has developed a very extensive policy, starting in the 70's; the reasons were twofold:

- the link between environmental protection and product standards, hence the internal market;
- the growing public demand for environmental protection and the changing political situation based on these new public needs.

Because environmental protection was neither a duty nor a competence of the European Community under the Rome Treaty, Member States used article 235 of the Treaty which is a kind of 'catch all' article. But this article requires unanimity in the Council of Ministers.

The practical consequence for to-day's subject was that unanimity is required for energy policy as well as for energy efficiency policy via the backdoor of environmental policy. Things changed with the Single European Act (SEA) and with the Maastricht Treaty.

The SEA came into force in 1987; it was the first modification of the original Treaties and constitutes a major revision in many respects, for our subject, two aspects are important. Under the SEA, environmental protection becomes a goal in its own right of the European Community; and parts of the environmental policy can be decided upon by qualified majority in the Council of Ministers, i.e. those parts related to product standards. The tone was set for major changes to come

The subsequent Maastricht was really innovative. It re-affirms that environmental protection is an aim of the EC, and it states that environmental protection has to be at a high level of protection, it establishes a constitutional basis for the precautionary principle, it reconfirms the Polluter Pays Principle and (crucial for our subject!) it re-established that environmental requirements must be integrated into the definition and implementation of other Community policies'. In the latter lays the main link to energy efficiency policies.

The Maastricht Treaty also modified the decision-making procedures. Based on a combination of articles 130s and 189c, decisions in the Council of Ministers can now be taken by a qualified majority but there are a few exceptions. Two are of importance for our subject: taxes (thus including energy taxes) and energy supply (BUT energy demand policies can be taken by qualified majority as a measure of environmental policy).

### **The Amsterdam Treaty**

Since 1<sup>st</sup> May 1999, yet another Treaty supersedes all the previous ones, the Treaty of Amsterdam. Two elements are of major importance for our subject, the principle of integration and the new but very real powers for the European Parliament.

The Treaty reads: .... *"Environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities....."*

For energy policy makers, there is now no escape possible: they have to come up with energy efficiency programmes and policies as part of an overall policy to reduce air pollution. The other major consequence lies in the field of decision making. In theory, the European Parliament since May 1<sup>st</sup> 1999 has real co-decision powers, 'co' on an equal footing with the Council of Ministers. In practice, Parliament is seldom able to use its co-decision powers.

Since the 70's, most Members of the European Parliament (MEP) have shown little interest for energy issues, other than discussions on research and technology; demand side energy policy was not a major topic. Environmental protection on the other hand has always been a major topic at the European Parliament, Members of the European Parliament, in particular from North European countries, did make the link, and started to push for greenhouse gas reductions via energy efficiency.

The European Parliament is at its best when it drafts Resolutions and Reports, i.e. documents from and for itself. The best so far is the Stockmann Report (Ulrich Stockmann (DE; Soc./PE.228.97/fin). It underlines the importance of energy savings in buildings, stresses the fact these savings are possible with existing techniques and technologies at a very reasonable costs and that the benefits last for a very long time (the remaining life of a building). The Stockmann Report also gives full support to regulations for retrofitting existing dwellings. The significance of the Stockmann Report is the following: it was agreed upon unanimously, with support from all political groups and from both South and North Europe

But when it comes to legislative work, then the Parliament is unable to deliver. Parliament most often looses out against the Council of Ministers, (which are more defending national interests and so often under the disguise of subsidiarity)

I would like to resume the first part so far by stating that the European Commission would like to promote energy efficiency in buildings but that the Council of Ministers does not follow. Therefor, EU energy efficiency policies require the backdoor of environmental protection, and the new Amsterdam Treaty, since May 1<sup>st</sup> 1999, provides a perfect basis for doing so. In the next and second part, we will look at a variety of different subjects but they link together in the end when we will come to the conclusions.

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### **CPD**

All participants to day are familiar with the Construction Products Directive (Council Directive 89/106/EEC). One of the essential requirements for a building product deals with '*energy economy & heat retention*'

The implementation of the CPD has met considerable delay. But quite apart from this delay, the CPD does not offer an opportunity to bring about energy savings in buildings because the CPD (and the harmonised standards under the CPD) deals with the individual building products, not with the total building.

Yet, the first harmonised standards (HDs) are now available, and thermal insulation products are in the first group. These HDs for thermal insulation become available in March this year and become compulsory in March next year. The availability now and the compulsory character as from next year inevitably leads to a modification of many national building codes. This obligation under EU law can be used to press for modification of the buildings towards better insulation standards both for new buildings and major improvements of the buildings.

### **The air pollution Directives**

We have mentioned in the first part that the EU pursues an active environmental policy ever since the 70's. As far as combating air pollution is concerned, the priority was (understandably) to reduce emissions from major stationary sources and from cars. Gradually, as the air policies became more extensive, there is an interest for air pollution from the housing sector as well. There is a specific programme to reduce CO<sub>2</sub> greenhouse emissions within the Kyoto context (see infra) but also attention for reducing SO<sub>x</sub> emissions from heating.

Earlier this year, the Council approved Decision 1999/2696/EEC to implement an earlier Decision back from 1994. Decision 1999/296/EEC is a reporting scheme. Member States have to report annually to the Commission and to the European Parliament how many greenhouse gases they emit, what the sources are (housing, industry, etc) and –most

importantly- what national measures are taken to reduce these emissions. The information has to be very specific: e.g. which specific measure for the industrial sector and which specific measure for the housing sector. Parliament will hold a public debate on the reports. This Decision is another leverage to drawing attention to emissions from the housing sector and to promote better insulation standards.

No less important is the Directive 2001/81/EC of last Summer about national emission ceilings Under this legally binding text, several air polluting emissions including SO<sub>2</sub> have to be reduced by 78% in some countries by the year 2010. Reductions in the housing sector are explicitly mentioned as a cost effective and efficient policy. This text is brand new and only just published in the Official Journal of 27<sup>th</sup> November 2001. But it is a powerful instrument to

- attract attention at national policy level to the large contribution of the heating /cooling sector in the grand total of emissions into air;
- single out the heating/cooling sector as one where technology is readily available without endangering the competitiveness of industry.

### **Kyoto**

As early as 1990, the EU Council of Ministers agreed a framework strategy to prevent climate change; in essence, it was an agreement to stabilise CO<sub>2</sub> emissions at 1990 levels. In December 1997, the EU, its Member States and other industrialised countries went much further and made a commitment to reduce CO<sub>2</sub> and other greenhouse gases by 5% (1990 base line) and most EU countries made an even stronger commitment (i.e. the EU –8%). Under this Kyoto Protocol, co-ordinated policies and measures must be agreed later on, but the Kyoto text states *expressis verbis* that domestic measures have to come first and that buying emissions from other countries comes second after the domestic measures. (E.g. tonnes of CO<sub>2</sub> emitted in 1990 (the base year) by Russia but no longer emitted because of the industrial collapse) This part of the Kyoto Protocol is crucial for to-day's subject because domestic action is all about measures in the building sector here in Western Europe, while buying emission rights is about Russia and the other former Communist countries. The Kyoto Protocol only became applicable when all major polluters ratify it. You all know that the USA refused to honour its Kyoto commitment;. To make a complicated story short, the Kyoto text was renegotiated in Marrakech and *de facto* weakened. This Kyoto-Marrakech text still needs ratification by the EU and by the national Parliaments of the Member States but it is foreseen that this ratification procedure will be over by June next. Notwithstanding that the USA did not agree with the weakened version neither, for our subject it is important what the Kyoto-Marrakech text now holds for energy savings in buildings.

For all its global pretensions (and climate change is the most global of environmental problems), the Kyoto-Marrakech text establishes a set of regional agreements with markedly different effects in different parts of the world (2) The EU is likely to meet its targets to a large extent through domestic activities. Other parties (Japan, Canada, and Australia) will accept binding targets but will exercise the full flexibility of the Protocol to meet them. Russia will sell hot air and will – in addition- be compensated for it. The USA is no longer a player. In Marrakech, the EU became the leader in combating climate change and now faces the challenge of delivering in order to keep its credibility.

The EU will deliver first and foremost by an ambitious emissions trading scheme, and secondly by a number of other measures. One of these other measures is a Proposal for Directive on the energy performance of buildings {COM (2801) 226 final; 11/05/2001}. Both the European Parliament and the Council of Ministers currently have the proposal on their table.

### **The (re-)new(ed) proposal**

The proposed Directive aims the introduction of a methodology for an integrated calculation of the energy performance of a building. The framework for such a methodology is part of the Annex to the Proposal. The work of this ENPER group fits perfectly within this aim. Furthermore, (and here the Proposal becomes partly a repetition of SAVE 93/76/EEC) the proposed Directive obliges Member States to set minimum standards for the energy performance of new buildings, to update them and to assess the feasibility of alternative energy supply for large buildings. The proposal extends these requirements for major renovations of large buildings units (larger than 1.000 m<sup>2</sup>); however, the wording of the article is such that it will have practically no consequences in the field. Just like SAVE 93/76/EEC, the new proposal provides for an energy certification scheme, the operation of which to be determined solely by the individual Member States. Furthermore, there are provisions about the inspection of boilers and of central air-conditioning. The present agreement within the Council of Ministers confirms the delay of implementation of up to 8 years after (future) publication in the Official Journal.

So, what is the proposal worth?

Under Council Directive SAVE 93/76/EEC of 16 September 1993, Member States have already the obligation to introduce a system of energy certification for buildings and of thermal insulation standards for new buildings. SAVE 93/76/EEC is famous for one thing, i.e. non-implementation.

The new proposal does nothing to resolve the problem of non-implementation. On the contrary, the new proposal has no longer clauses about reporting of implementations or about the inspections of the implementation, which 93/76/EEC did contain (but were not enforced neither!). Basically, in matters insulation for new standards and energy certification, the new proposal brings little or nothing.

The new proposal encompasses major renovation works for new buildings, but in practice (and after the Council meeting of 4/5 December last); it will have a very limited effect in the office sector only and none at all in the residential sector.

Remains the fact that the proposal (once approved, published and implemented) will bring about a common methodology for an integrated calculation of the energy performance of the building. That will be the step forwards.

So, in practice, the proposal is rather an invitation to the Member States to renew their engagements made in 1993 and at the many different climate change discussions. If only Member States also do at home what they say in Brussels and other places about the need to combat greenhouse gases!

### **Energy performance standards**

The proposed Directive opts for energy performance standards rather than prescriptive standards. By doing so, the proposed Directive takes the same policy line as the Member States when up-dating their legislation and regulations. The policy trend towards energy performance standards (rather than prescriptive standards) is dominant in Europe. But this trend towards energy performance standards will not diminish the role of insulation products and of proper insulation techniques for several reasons:

- the building envelope remains the most important element for potential energy savings
- insulating the envelope is the most sustainable option and lasts for the entire life time of the building (which is not the case with some other energy saving devices)
- the very fact that insulating the envelope last for the entire life of the buildings, brings about that the initial insulation (at the moment of the works) has to be very performant indeed because improvements later on are very difficult.

## CONCLUSIONS

The EU energy policy is not a success because of very divergent positions between the Member States; consequently energy efficiency *sui generis* as part of an overall EU energy policy hardly can be successful. We only can hope that the situation improves.

Recently however, a number of other instruments became available for a renewed campaign in favour of better EU regulations to combat energy waste in buildings, in particular the (successful) EU environment policy.

- 1 Under the EU air pollution policy, Member States now have to report how much the housing sector contributes to CO<sub>2</sub> and SO<sub>x</sub> emissions, and to report what measures they take to reduce these emissions.
- 2 The new national air pollution ceilings propose a 78% reduction in SO<sub>x</sub> pollution; the housing sector is again in line here for sectors where major progress can be achieved in an affective and cost efficient manner.
- 3 The realisation of the Internal Market on the other hand, and in particular the setting into place of the Construction Products Directive is not directly an instrument for better energy efficiency in buildings.
- 4 But the final application of the CPD at Member States level will require in most if not all member States that the building codes need to be re-written, and this up-date can be a good occasion to campaign for better energy efficiency rules.
- 5 The Amsterdam Treaty has changed the rules of decision making in the EU in a very fundamental way (it will take some though this small revolution is fully appreciated), while qualified majority is more and more taking precedent over unanimity in the Council of Ministers The European Parliament in theory has serious powers, and while the European Parliament is more in favour of both energy efficiency , the European Parliament is seldom able to deliver
- 6 Slowly, slowly, the public interest in global climate issues brings about a re-inforced interest for energy savings in buildings. At EU level, progress is by minuscule steps. A lot more and faster progress is possible at national level.
- 7 Finally, and specifically as far as energy performance standards is concerned, this trend is unavoidable but the energy performance standards do not diminish the importance of insulating the building envelope very well and from the very start

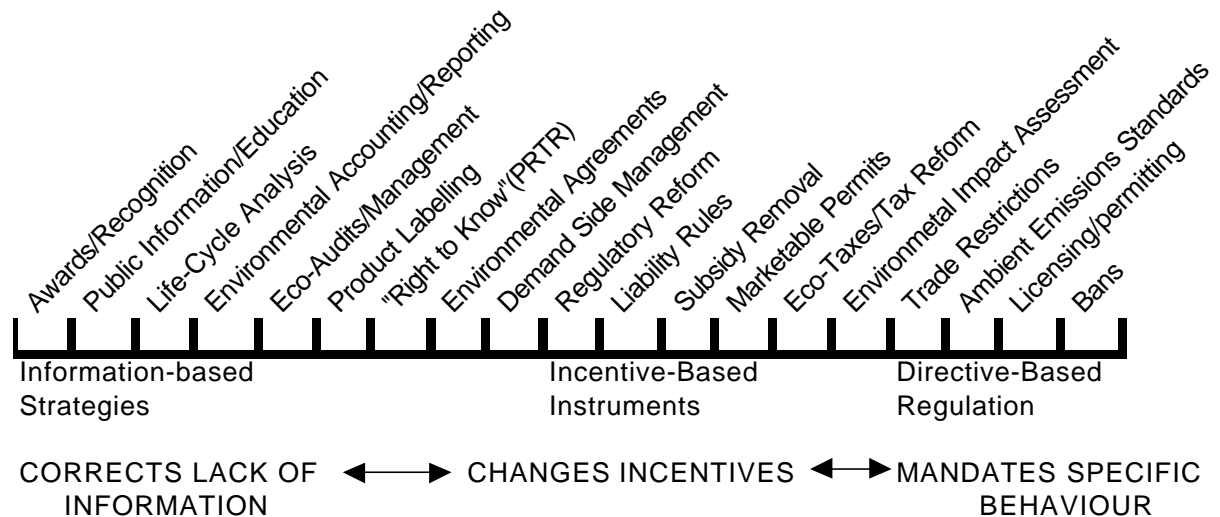
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### ADDENDUM: 3 examples for EU initiatives

The basic line of my presentation is that environmental policies open up opportunities for EU initiatives in the field of energy savings in buildings. This Addendum deals briefly with the possible instruments for future action.

Starting point is the OECD overview of potential instruments for environmental policy.



Following are 3 examples amongst these possible instruments:

#### 1/ **Information-based strategies: *the promotion of best practices***

The EU institutions (Commission and Parliament) can give European awards for, e.g.:

- cities and regions that have credible energy audits schemes on their territory and serious public information campaigns;
- estate agents that consistently use energy audits in the prospectus of the property for sale or lease;
- landlords that implement energy management systems in the offices and the flats

#### 2/ **Incentive-based instruments: *subsidy removals and tax reforms***

We have already mentioned above that energy supply is heavily subsidised. These subsidies could be removed, and this removal appears to me to be a prominent task of the European Commission given its responsibilities of guardian of a free and fair internal market

Worse even is that in several Member States VAT (value added tax) on insulation materials is higher than on energy purchase; such measures make energy savings deliberately more expensive than energy waste! What is required here is a modification of the so-called 6<sup>th</sup> VAT Directive.

### 3/ Directive-based regulations: *Thermal Insulation Standards as well as Ambient Emissions Standards*

Despite failed tentative in the past, it remains necessary that the EU tries again to regulate insulation standards in the Member States, in particular for the Southern countries, and that this regulation includes major retrofitting works as well.

Energy performance standards for buildings (instead of prescriptive standards) are situated in the middle-left part of the OECD table.

This is a revised and up-dated version of the paper presented in November 1998 at the Low Energy Building Conference in Hamburg.

- (1) Although the EU no longer has an open pro-nuclear policy, it continues to support nuclear energy via the backdoor of research funding. The Greenpeace report *Energy Subsidies in Europe* mentions that on average between 1990 and 1995, the EU and the European countries gave per year 4.678,8 Million \$ to support nuclear energy, compared with 10.236,2 Million \$ for fossil fuels and 1.493,2 Million \$ for renewables
- (2) I draw heavily on the analysis by CEPS, the Centre for European Policy Studies.