INTERNATIONAL FEDERATION
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IFIEC Europe

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Green Paper on Energy Efficiency – IFIEC Europe's Comments and Replies

Introduction

Energy Efficiency has been a permanent and priority issue for manufacturing industries for a very long time. Efficiency improvements and energy savings are not an isolated target, but part of overall business decisions driven by economic as well as technological needs. The highest achievable level of welfare in combination with the application of innovative, available technology have been the drivers for an ever improved industrial energy efficiency performance in the EU Member States. As a result, the major part of the historic "negajoules", as shown in the Green Paper on Energy Efficiency, is based on industry's contributions.

Industry has played the most prominent role with regards to energy efficiency improvements in the past, and it is also willing to accept an important role for the future. However, the package of politically initiated measures addressed to industry and related to the closely linked objectives of energy efficiency, as well as climate change and environmental protection implemented in recent years, is an extremely complex one. Some of these individual measures and more often the combination of them have not been realistic in meeting the objectives. Often, they have led to high and costly administrative requirements as well as additional financial burdens. These have decreased the ability of industry to invest in further improvements to their processes and thus weaken the ability of EU industry to resist the threat to their global competitiveness.

Therefore, IFIEC very much welcomes the initiative reflected in the Green Paper on Energy Efficiency, to take a comprehensive look at the energy efficiency situation and to make the appropriate conclusions in terms of further measures. A broader approach to energy efficiency measures by addressing wider parts of energy usage, as shown already in the EU Directive on Energy End-use Efficiency and Energy Services may allow a change away from inadequately integrated steps and measures.

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For industry the key is a competitive position providing an investment climate and investment opportunities, which are the preconditions for further significant "negajoule" contributions. Science and research can only flourish and bring the appropriate results and inventions into real life, when such competitive climate – fully in line with the EU's Lisbon strategy – is real.

The value of "negajoules", as underlined in the Green Paper on Energy Efficiency, must be taken seriously in political decision making. That means that EU industry is not only and even not primarily the polluter, over-intensive consumer of energy and source of emissions, as it is often addressed by politics. On the contrary, in global terms – the single adequate perspective for these issues – industry is the major contributor of EU's and also global "negajoules" by providing products against highly efficient energy and emissions standards.

Some remarks to the content of the Green Paper on Energy Efficiency

⇒ Current electricity prices demonstrate that the goals of the liberalisation process (competitive prices) have not yet been achieved. For large industrial consumers electricity today is much more expensive than before liberalisation. The main reasons are the dysfunctioning of the market (oligopolistic generation structure), as well as state interference that adds to electricity prices, and the emissions trading system, (which gives the electricity industry immense windfall profits and leads to a loss of competitiveness at the consumers' side). Market functioning today is very unsatisfactory and presents a real threat to the EU in its attempts to reach the Lisbon strategy objectives. Against this background, any EU-wide or national decisions on further interferences in this market must be analysed very thoroughly in terms of how it will effect the attempts to establish a competitive, better functioning internal electricity market. (section 1.1.)

⇒ It is highly necessary to carefully scrutinise any further mergers and acquisitions in the energy sector. Market power of generation companies and missing competition is blocking the development of a real market and is therefore also an obstacle to the evolution of third parties with fresh, innovative ideas and approaches to offering energy efficiency services. (section 2.)

⇒ Energy grid regulation is a necessity due to the grid's essential facilities character. The scope of regulation, however, should be limited as much as possible. Extensive regulators' competencies in the field of energy efficiency etc. would be the basis for rather bureaucratic and administrative mechanisms. (section 4. and 2.1.)

⇒ Taxes on energy products and electricity consumption for manufacturing industries are just additional elements to final product pricing. For companies in global, competitive markets this is a real threat to their competitiveness. If the "negajoule" contribution of EU industry, as well as its global contribution to avoid CO_2-emissions are respected seriously, then the energy tax level must in any case be kept on a global level playing field basis. (section 1.1.4.)

⇒ In the planned review of the EU ETS system in 2006, the functioning of the system in terms of reaching its objective to reduce emissions in the most cost-effective way must be analysed in an objective manner. A cost-benefit analysis must include the cost for consumers by pricing in the opportunity cost into the electricity price. This price effect and the related transfer of wealth must be compared to the estimated cost optimizing effects of reducing emissions. Furthermore, the situation for electricity companies regarding the incentives for initiating efficiency improvements must be analysed. Do they really exist, when electricity companies are able to transfer all cost – real and opportunity – to their customers and inefficient plants with high CO_2-content set the market price for all generated electricity, thus maximising windfall profit potential? (section 2.3.)

⇒ More efficient electricity production and especially CHP are seen as major opportunities to improve energy efficiency and to lower emissions. It is claimed that the Emissions Trading Directive is an effective instrument to support and achieve this. However, present allocation rules under a cap and trade regime are not delivering to this objective. More efficient power plants, when they are the relevant ones for setting the power price in the wholesale market, cause lower opportunity costs which means that electricity producers are cutting into their own flesh by initiating efficiency measures at least in this segment of the power plants. It is also well known that current allocation procedures give little incentive and can even be interpreted as removing incentives for CHP if one studies the National Allocation Plans in various Member States. (section 2.3.)

⇒ A secure supply of energy is a must for EU industry. Diversity in the fuel mix used can help reduce the risks associated to this supply. Therefore, all energy source options have to be taken into account. Choice and flexibility is vital! To neglect one source is therefore too dangerous. Therefore, also highly efficient coal usage must play a role in the future. The nuclear option must also be considered. (section 2.3.)

⇒ Achieving agreements for global participation on combating climate change is a major objective of the EU policy. This is important especially since many European companies are operating on the global market. Too stringent requirements only in the EU distort the level playing field. Since emissions trading is seen in the EU as the centrepiece of climate policies for companies, it is crucial to expand emissions trading to a global scale. However, the present design and allocation rules have caused severe competitiveness distortions. Therefore, a new approach is needed urgently. Such new approach must be based on efficiency, i.e. relative targets. This has become even more prominent as major global actors as USA, China, India and others have definitely refused to accept absolute targets. (section 6.)

Below, IFIEC gives answers to the questions of the Green Paper on Energy Efficiency, which are related to EU industry:

Answers to the Green Paper's questions

1. *How could the Community and the Commission in particular, better stimulate European investment in energy efficiency technologies? How could funds spent supporting research in this area be better targeted?*

   IFIEC believes the Commission has an important role in overseeing the development of the principles of the EU energy delivery infrastructure. Ensuring EU's security of supply means providing fuel and generating technology options to avoid undue reliance on external sources. The importance of effective implementation of the gas and electricity market liberalisation Directives is also reinforced as these are essential if overall EU security is to be realised. The Commission should review both existing and theoretical technologies and make accurate and realistic assessments of their potential within EU. These should be scientific and technologically based studies. No prior judgement should be made of the perceived acceptability of any of these technologies, although the conclusions would include such as environmental effects, capital needed for any to be realised and regional variations affecting suitability. EU high level energy policy and infrastructure improvements should be derived from these assessments, whilst Member States would decide the detail of their national provisions within the wider framework.

2. *The emission trading mechanism is a key tool in developing a market-based response to meeting the goals of Kyoto and climate change. Could this policy be better harnessed to promote energy efficiency? If so, how?*

   IFIEC has clear doubts on whether the current EU emissions trading scheme as it functions in close relation to the incomplete and oligopolistic internal electricity market is really delivering the intended results.

   To the contrary, for electricity producers as well as for other sectors we see that EU ETS is not stimulating investments to reduce emissions. A lower emission achieved by investing in an efficiency improvement project will inevitably become part of the historical reference used to grant the allowances in a future period. Therefore, each party involved in the scheme will have to face in future rather negative consequences from reduction measures within the scheme in the form of less allowances granted. The participant, who remains at the (in)efficiency level as before, on the other side, will not have to face such reduced allowance volume. Not the polluter-pays principle, but the opposite, the polluter-earns-principle is thus a consequence of the current ET regime. Efficient CO_2 reduction projects on this background are highly uncertain, meaning that the current EU ETS is the reason for inactivity regarding climate change measures within industry.

   The incentive to reduce CO_2-emissions' levels in the electricity industry, the major player in the scheme, is, furthermore, highly questionably, since, the whole amount of actual and also opportunity

costs caused by emissions trading can currently be passed on to the customers and inefficient power plants with a high CO_2 content set the price for the whole production volume, thus increasing profits.

The current EU ETS is meant to be a test before the Kyoto process will start in 2008. A complex revision of the mechanism as tested currently is therefore urgently needed. Both, for efficiency and emissions reductions purposes, as well as for the purposes of the EU's competitiveness a revision of the grandfathering based system must take place. Only a performance based system, where the basis for allocation is the real trigger, i.e. the level of efficiency, can deliver the intended results and would avoid the serious threat for the EU caused by the "windfall losses" for all electricity consumers.

3. *In the context of the Lisbon strategy aiming to revitalise the European economy what link should be made between economic competitiveness and a greater emphasis on energy efficiency? In the context, would it be useful to require each Member State to set annual energy efficiency plans, and subsequently to benchmark the plans at community level to ensure a continued spread of best practise? Could such an approach be used internationally? If so, how?*

   In order to provide for an intensive improvement of energy efficiency within industry the relation between cost and benefit is crucial. On a wide scale industry applies innovative technologies and processes as soon as they prove economic and contribute to its competitiveness. Political measures, which ignore this simple logic, must face their contradiction to the objectives of the Lisbon strategy. Therefore, in order to make energy efficiency a part or even an instrument of achieving the Lisbon strategy, the right investment and research climate is vital for inventing and identifying the right efficiency measures. It is more than doubtful, whether Member State plans could be an adequate means in this respect, rather than just bringing in further bureaucracy – at least for industry level. An example of this test will be the way in which the IPPC Directive is introduced into national laws and practices. The hugely detailed work represented in the BREF's, generally represents technical potentials, but transferring the principles into operational business practice is often a separate issue involving achieving optimum between all of the linked operational processes and assessing the overall risk each option presents. Business does this on a daily basis, but formalising this into BAT structures acceptable to regulatory bodies could lead to costly, bureaucratic procedures with minimal environmental benefit.

4. *Fiscal policy is an important way to encourage changes in behaviour and the use of new products that use less energy. Should such measures play a greater role in European energy efficiency policy? If so, which sort of measures would be best suited to achieve this goal? How could they be implemented in a manner that does not result in an overall increase in the tax burden? How to really make the polluter pay?*

   For energy efficiency improvements in industry, fiscal measures making energy usage more expensive, is the wrong way, since it diminishes its ability to invest into better technologies. Furthermore, energy is a vital production input for manufacturing industries. Each additional financial burden put on it is distorting its competitiveness on the global level.

   Tax policies, however, can play a role, when it is used for offering support for genuine efficiency improvements. Such exemptions can help improve the cost-benefit-analysis of innovative technologies.

5. *Would it be possible to develop state aid rules that are more favourable to the environment, in particular by encouraging eco-innovation and productivity improvements? What form could these rules take?*

   The state role is prominent in supporting research and development, including support for studying the feasibility of new technologies or for energy efficiency projects within existing technologies. Besides, as long as state aid – e.g. in the form of tax exemptions – as mentioned under question 4 – are foreseen for a clearly limited period and volume (e.g. not in the manner of lots of current renewable energy support schemes in the EU) they might help market entrance for new technologies. Therefore, this should be possible in a limited range. However, primarily the market itself should provide for the right signals and incentives.

12. *Public information campaigns on energy efficiency have shown success in certain Member States. What more could be done in this area at international level, EU level, national level, regional and local level?*

IFIEC can support such information campaigns. To the extent that their effectiveness can be optimised, these should take place on a national level. An exchange of ideas regarding the experiences is useful on the EU level.

13. *What can be done to improve the efficiency of electricity transmission and distribution? How to implement such initiatives in practice? What can be done to improve the efficiency of fuel use in electricity production? How to further promote distributed generation and co-generation?*

The efficiency of electricity transmission and distribution is something regulators should have an eye on. Regulators should have the authorities to oblige TSOs and DSOs to improve or safeguard quality standards taking also account of efficiency issues.

One aspect of improving the efficiency of fuel use in electricity production is linked to ancillary services. The optimization and minimization of the need for balancing power will give more power plants the possibility to function at its nominal level, which provides for a maximum efficient usage. Here a well functioning regime in the balancing power market with improved access for a wide range of generators is required. The critical negative influence of highly varying power inputs, as e.g. from wind power plants, must also be considered as something, which has to remain manageable.

To promote decentralized generation and cogeneration it is e.g. crucial to have back-up power provided at economically reasonable conditions. Furthermore, the EU ETS allocation rules must be fundamentally revised to give a respective and wanted impetus from this side.

The gas market must be improved regarding its competitive structure in order to provide for a better fuel supply for independent generators.

14. *Encouraging electricity and gas providers to offer an energy service (i.e. agreeing to heat a house to an agreed temperature and to provide lighting services) rather than simply providing energy is a good way to promote energy efficiency. Under such arrangements the energy provider has an economic interest that the property is energy efficient and that necessary investments are made. Otherwise, electricity and gas companies have an economic interest that such investments are not made, because they sell more energy. How could such practices be promoted? Is a voluntary code or agreement necessary and adequate?*

The promotion of energy services, as e.g. in the manner described in question 14, is foreseen in the draft Directive on End-Use Efficiency and Energy Services. IFIEC underlines that the request for such services should primarily be set by the market and that interference into the market should be minimised as much as possible. If, as foreseen in the Directive, however, state initiated measures are being started and are financed by means of charges to the distribution fees, IFIEC underlines the need for ring-fencing any such additional charges to the sectors addressed by these measures. If industry covered by EU ETS and IPPC requirements (and respectively having to bear the connected cost) is explicitly excluded from the addressees of this Directive, they must be respectively also from any financial consequences.

15. *In a number of Member States, white (energy efficiency) certificates have been or are being introduced. Should these be introduced at Community level? Is this necessary given the carbon trading mechanism? If they should be introduced, how could this be done with the least possible bureaucracy? How could they be linked with carbon trading mechanism?*

Linking different sectors having totally different abatement costs and mechanisms within one single trading mechanism could have complex consequences and could thus change .the previously estimated preconditions and assumptions totally. This must be considered, when currently thinking about the inclusion of aviation into the existing EU ETS. Linking even more different sectors, as implied in the question above, could have still more negative effects.

Anyway, the experience gained from the EU ETS system's functioning during its first year must lead to being extremely careful towards any decision of widening its scope. Before having repaired the major malfunctioning of the system – causing an extreme transfer of wealth from consumers to electricity producers while having a questionable impact on CO_2-emissions reductions – it should not be taken as a positive example for other trading schemes or widened in its scope.

Furthermore, if any parallel trading schemes for efficiency purposes would be introduced ring-fencing its financial consequences must be provided for. Additional financial burden for companies covered by IPPC and / or EU ETS is not acceptable.

16. *Encouraging industry to take advantage of new technologies and equipment that generate cost-effective energy efficiencies represents one of the major challenges in this area. In addition to the carbon trading mechanism, what more could and should be done? How effective have been steps taken so far though voluntary commitments, non-binding measures adopted by industry, or information campaigns?*

    The results of voluntary agreements (e.g. in Germany or the Netherlands) have been very positive. However, often state interference in the manner of introducing further mechanisms and requirements have distorted the effects of such instruments. Nevertheless, industry to a very large extent has done its job by improving significantly energy efficiency in its production processes. The instruments and mechanisms targeting industry with regard to climate change or environmental protection purposes are numerous in most of the EU Member States. Rather than searching for new mechanisms, in most of the Member States it would be urgently needed to analyse the existing mixture of instruments with regard to any counter-productive effects or effects which just add another cost element without adding to target meeting.

    However, CHP still has potential to give positive contributions to a more efficient energy usage. A reasonable and meaningful further development of the CHP Directive's framework and rules could help strengthen this contribution. And most importantly, the allocation of allowances in the EU ETS needs to be fundamentally revised as currently virtually no stimulus for CHP is there.

    However, after having targeted industry intensively over the last years and after industry having delivered good results and success, the issue now must be to address the sectors, where the past does not show the necessary improvement, and where improvements can now be realised in an easier and cheaper way.