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COMMISSION COMMUNICATION “ENERGY EFFICIENCY PLAN 2011” (COM (2011) 109/4)

EXECUTIVE SUMMARY

Energy efficiency is a key issue for European engineering industries represented by Orgalime. As both major energy consumers and providers of the enabling technologies for achieving energy and resource efficiency, we welcome the Commission’s Communication on the Energy Efficiency Plan 2011 as an initial step to contribute to the achievement of the EU 2020 objectives.

We feel that the most economic and simplest way to reach the EU 2020 energy efficiency objectives is to focus on the inefficient production, transmission and use of energy across market segments, and that the buildings, infrastructure and transport sectors, as well as a massive diffusion of existing energy efficient technologies and products, bring particular potential for realising substantial energy efficiency improvements.

In terms of concrete measures, Orgalime particularly supports the following actions put forward in the Energy Efficiency Plan 2011:

- Ambitious targets for new buildings and the renovation of existing buildings
- An active public sector promoting energy efficiency in public infrastructures, buildings, transport and smart cities, i.e.: investments plans and a better consideration of energy efficiency aspects in public procurement
- As an initial step, a 3% annual renovation target for public buildings
- A better dissemination of already available innovative technologies and products
- A systematic use of energy performance contracting
- Investment in and use of smart grids, and smart metering and smart technologies, including smart home technologies
- The promotion of thermal insulation and use of high efficiency equipment, active control systems, such as automation, control and monitoring systems as well as intelligent metering
- Increased R&D in energy efficiency technologies, including through financing of the SET-plan
- Creating a flexible and intelligent energy system with a high level of security of supply and an efficient integration of sustainable technologies, including for example highly efficient household appliances, wind power, solar panels, photovoltaic, biomass, electric vehicles or heat pumps
- Education of all actors, from consumers to the whole business chain and associated services, such as installation and maintenance
- The development of benchmarking and sharing of good practices

Orgalime, the European Engineering Industries Association, speaks for 32 trade federations representing some 130,000 companies in the mechanical, electrical, electronic, metalworking & metal articles industries of 22 European countries. The industry employs some 10.6 million people in the EU and in 2009 accounted for some €1,427 billion of annual output. The industry not only represents more than one quarter of the output of manufactured products but also a third of the manufactured exports of the European Union.

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We, however, ask that the Energy Efficiency Plan should be strengthened in the following respects:

- Full implementation of existing EU legislation and proper market surveillance, including in particular for the Energy Performance of Buildings and the Eco design Directives
- More ambitious targets for the renovation of all existing buildings, in particular a refurbishment target of public buildings going beyond the proposed 3% annual target

Finally, we are concerned about the following proposals:

- The further implementation and development of the Eco Design Directive and the particular proposal to “*investigate whether and which eco design requirements would be suitable for standard industrial equipment and processes, such as drying, melting, casting or distillation*”: This proposal raises our concerns and in our view starts demonstrating the limits of the Eco Design Directive as a product-related environmental legislation for the reasons we list hereafter: In particular we feel that binding Eco design requirements may not always be the best option to realise energy savings in the area of professional goods and we recommend a very careful approach when investigating the best means to realise energy savings in these areas.
- As for binding eco design requirements, labelling may not be the most effective means to drive energy efficiency improvements in the area of professional goods. For consumer products, labelling as one tool of providing environmental product information can help to raise awareness. However, it would be critical to secure one simple, easy-to-understand label and to avoid multiple labelling of the same products, which risks confusing consumers and being counterproductive for achieving the necessary change of behaviour and consumption patterns.
- Mandatory energy audits for large companies: while we support energy audits and energy management systems as useful tools to monitor energy consumption, these should remain on a voluntary basis. Also, setting different rules for small and large companies does not help a level playing field. Instead, support measures for SMEs should be taken.

Energy efficiency is a key issue for European engineering industries, which play a strategic role in the European economy. Orgalime industries are both energy consumers and also the industries which provide the enabling technologies for achieving resource efficiency on a very broad basis (from production, to distribution and to the consumption phase). Our industries provide technology solutions improving the energy efficiency and addressing the challenges that the climate change, sustainable consumption and production and energy security agenda pose.

We see the Commission’s Communication on the Energy Efficiency Plan 2011 as an initial step to contribute to the achievement of the EU 2020 objectives. However, we hope that the steps to follow will focus strongly on the inefficient use of energy across the market segments of buildings, infrastructure and transport and particularly stir the necessary market response for available energy efficient products.

Following our Position paper of March 2011 (www.orgalime.org/Pdf/PP_EEAP_mar11.pdf), Orgalime takes this opportunity to comment on the priority areas and proposals outlined in the Commission Communication.

I. Main principles for a successful energy efficiency policy

Against the background of the various EU legislation affecting Orgalime industries and the experience gained with the implementation of environment and energy legislation, the Commission should, in our view, take into account the following main principles for launching concrete measures to implement this plan:

1. A full implementation of existing EU legislation

First of all, we would like to remind that full implementation of already enacted EU legislation within all member states (i.e.: Energy Performance of Buildings, Energy Labelling Directive and Eco Design Directives) is an essential and necessary condition to achieve an energy efficient Europe. Appropriate resources should also be provided, at the level of the Member States, to ensure effective market surveillance.

2. A consistent, stable and predictable regulatory framework

Consistence and coherence of the EU legislative environment is necessary to avoid overlaps and legal uncertainty that penalise manufacturer, as well as to secure the competitiveness of EU industries. Gaps and overlaps between, and also within, the expanding EU legislative environment (e.g.: Energy Performance of Buildings, Energy Labelling Directive and Eco Design Directives) are a matter of concern and may become an unbearable burden to manufacturers. The ever more complex body of EU legislation is increasingly of concern, especially for integrated multifunctional products, which may be subject to several inconsistent or even contradictory regulations.

Regarding EU energy policy, measures set up in the 2011 Energy Efficiency Plan should be in line with the 2050 Roadmap and fully integrate the Energy Strategy for Europe 2020.

Stability and predictability should also be ensured for incentives and return on investments that would allow EU industry to make long term planning. As a consequence of the current economic situation, a number of Member States are sharply and abruptly reducing incentives for the financing of energy efficiency or renewable energy technologies. Such short term changes discourage industry from investing in innovating technologies aimed at achieving the 20% energy efficiency and the 20% CO₂ emission reduction targets. At the same time, these effects illustrate the necessity to design changes to the energy markets that allow moving beyond such incentive scheme approaches and ensuring an economically viable environment for investments even in times of crises.

3. A global and integrated approach

Installed conversion systems from primary energy to useful forms of energy are currently inefficient. Improvements are therefore necessary throughout the whole energy supply chain, from power generation, to transmission and to distribution. All segments of the chain of the energy supply chain should be involved, since the various stages of energy supply are interconnected and inter-dependent.

4. EU leadership in technological innovation

Energy efficiency and CO₂ emission reduction should be drivers of innovation. A regulatory framework that fosters research and innovation, but is also supportive of innovative technology solutions that are already available is therefore of utmost importance. We welcome the Commission's intention to continue to foster the development, testing and deployment of new energy efficient technologies, such as financing the SET-plan that we fully support. The innovation policy should focus in areas such as, for instance, automation, energy efficiency, renewable energy and mega-cities. Increasing public and private investment on research and development, as well as on already available innovative technologies contributing to improve

energy efficiency, must become an issue of the highest priority, thereby, contributing to maintaining a competitive European engineering industry.

Investment and innovation in energy efficient products and systems should also be encouraged by launching long term fiscal policies and financial incentive plans adapted to each sector, but avoiding market distortions between different sectors. Despite the considerable investment that manufacturers in the EU have made in energy efficient technologies, progress in the diffusion of energy efficient products and systems is still too slow to reach the EU's 2020 objectives, and progress at international level is even slower. If the EU is therefore to benefit from the technological lead it has achieved to date it must continue to promote the diffusion and uptake of energy-efficient technologies, and become a leader in setting standards.

5. The promotion of lead customer markets in the EU

Engineering industries are solution providers for the energy efficiency challenge and have the ambition to remain a global leader in sustainable technologies. Fostering research and innovation and today's available innovative technology is, therefore, necessary to maintain EU industry competitiveness and to allow us playing a leading role in the emerging "green economy". However, financial support measures for R&D and public spending are not sufficient to achieve this; there is also a need for a "market pull" to create "lead customer markets" to stimulate the uptake of the most innovative and best technologies, systems, products and services to satisfy customers' needs. We believe that, for the developments of green technologies, the concept of lead markets will accelerate the development and take up of innovative technologies. The market pull should be accomplished in particular by improving the framework conditions for the manufacturing industry in Europe and for its customer sectors.

6. An active public sector that promotes the adoption of energy efficiency

Public authorities at European, national and local level should develop ambitious and visible investment plans in public infrastructures, buildings, transport and smart cities, using, where appropriate, public private financing to accelerate investment. Public procurement should be used to promote energy efficiency goods, services and works.

We fully support the systematic use of energy performance contracting, which has already proved to be very efficient, for building renovation but also for upgrading public infrastructures, such as street lighting. However, the experience gained in some Member States with the energy performance contracting instrument showed that new actors faced difficulties to access the market. A framework clarifying its definition, as well as contract modalities ensuring fair competition and facilitating access to market and funding for new actors, would certainly support the dissemination of such an instrument, and therefore innovative technologies.

7. A push for education, training and information campaign on energy efficiency

Raising the general awareness regarding energy efficiency is a vital prerequisite to achieving efficiency improvements. We fully agree that it is of utmost importance to educate all actors, including consumers and the whole business chain (architects, engineers, auditors, installers) since energy efficiency technology solutions are more and more technical and diverse. In addition, associated services (e.g. installation and maintenance) ought to be provided by properly trained professionals to realise efficiency improvements.

II. Priority sectors for a successful energy efficiency policy

The most economic and simplest way to reach the EU 2020 energy efficiency objective is, in our view, to focus on the inefficient use of energy across market segments, such as the buildings, transport and energy sectors through diffusion of technologies, which are already available today.

1. Buildings

Considering that over 80 % of existing buildings will still exist in 2020 and nearly 40% of the final energy consumption is spent in buildings, refurbishments of existing buildings, including the installed energy using stock, should be the top priority to successfully underpin the EU's energy efficiency and climate change policy.

Regarding public buildings, we particularly support the Commission's proposal to set up a binding target for the refurbishment of the national buildings stock as well as a systematic use of energy performance contracting for building renovations. We believe that measures taken by the public sector need to be socio-economical and we support the proposed 3% annual renovation target as an initial step. However, the public sector should, in our view, go far beyond this 3% target, if it is to lead by example. Moreover, we would like to stress that ambitious objectives for renovation would have to be set for all existing buildings to achieve the 2020 objectives.

We fully support the development of energy performance contracting and Energy Service Companies (ESCOs) as a catalyst for renovation, which has already proved to be cost effective in some Member States. However, it is not currently economically viable to invest in small surface buildings. Dissemination of such practices should therefore be stimulated, that is in setting conditions to lower the economic breakeven point.

We fully agree that the dissemination of efficient technologies to address heat consumption, and more generally thermal insulation, but also lighting, would help to explore to the extent possible the energy savings potential in buildings.

We also support the Commission's intention to facilitate the market uptake of more efficient building components and energy using products, i.e.: through the development of eco design and labelling requirements.

This should be complemented by an easier access to funding for refurbishment, since an improved access to energy efficient technologies would favour a much greater exploitation of the energy savings potential in buildings. Moreover, besides the potential arising from the area of heating and cooling, it is important to remember the role that energy efficient products and systems certainly have a role to play in addressing electricity consumption at home. This should be duly taken into account.

Finally, changes in consumption patterns are also a vital prerequisite for realising energy efficiency improvements. Raising the awareness of the end user on the energy consumption data of his building is a pre-condition for these changes to happen. Thermal insulation and use of high efficiency equipment, active control systems such as automation, control and monitoring systems, as well as intelligent metering, should therefore be promoted.

2. Industry

While much has already been done by large parts of industry, we believe that there is still a considerable potential to increase energy efficiency through cost-effective technologies. As stated in the Commission's plan, while important efforts have already been made by European manufacturers to improve energy efficiency, for example through the implementation of eco design requirements on motors and pumps, there is still room for improvements.

We fully support the Commission's intention to continue analysing the energy impact from a full life cycle perspective. This is the concept of the Eco Design Directive that addresses all environmental aspects of products throughout their whole life cycle, which we support.

The Energy Efficiency Plan 2011 also highlights a possible setting of eco design requirements for “standard industrial equipment, such as industrial motors, large pumps, compressed air, drying, melting, casting, distillation and furnaces”. This raises Orgalime’s concerns for several reasons:

- Drying, melting, casting or distillation are industrial processes and not products. These can therefore not be placed on the market as such and it will hardly be possible to identify one responsible manufacturer for a process. Consequently, it will remain unclear who would be responsible for meeting the eco design requirement, as well as whom to target when enforcing a potential requirement.
- If the requirement were to apply at the level of the industrial installation, however, the Eco Design Directive would tread in the area of the Industrial Emissions Directive (2010/75/EU), for which a particular BREF on energy efficiency has been developed, thereby creating overlaps and risks of conflicting requirements.
- In addition, industrial equipment and technologies more often than not represent tailor-made solutions, rather than standard solutions manufactured as mass products, which the Eco Design Directive aims to target. To derive standard applications (“base cases”) will not be possible in many cases.
- The criteria set in article 15 of Directive 2009/125/EC may therefore not be met in many cases.

We therefore question the appropriateness and effectiveness of the Eco design framework to regulate industrial equipment and processes and recommend a very careful approach when investigating the best means to realise energy savings in these areas.

Where the Eco Design Directive is assessed as the tool of choice for realising energy savings, Orgalime supports a flexible approach for its implementation, given the vast variety of products covered by the Directive, which would allow targeting standalone products as well as products incorporated into a wider field of application (so called “extended product approach”). Case-by-case decisions on whether to apply a “product” or an “extended product” approach for the implementation of the Eco Design Directive, depending on the targeted product group, appear workable to us.

We do not support the Commission proposal to set mandatory energy audits for large companies. While we support energy audits and energy management systems as useful tools to monitor energy consumption, we believe that they should remain on a voluntary basis and be encouraged by appropriate incentives rather than becoming a mandatory tool. Mandatory energy audits could easily hamper investments made by our industries and Member States in the context of national voluntary and long-term agreements. Companies should not be burdened with additional legislation leading to bureaucracy and costs. In addition, requirements should be the same for all companies, whether small or large, while ensuring that appropriate support measures would be put in place for SMEs.

3. Infrastructures

The wide variations of regulatory framework and political support in many Member States do not create at the present time, in our view, the consistent conditions required for developing a sustainable smart grid system in Europe, which will be sufficiently flexible to deal not only with immediate requirements due to the change in energy mix, but will offer sufficient possibilities for innovative applications in the future.

The European energy strategy should, in our view, aim at creating a smart, flexible, cost efficient and intelligent energy system, which will deliver a high level of security of supply, efficiently integrate a high share of sustainable technologies, especially on the consumption

side, such as smart appliances, wind power, solar panels, biomass, electric-vehicles, heat pumps, and also offer the means to each end user to efficiently manage the energy consumption in terms of CO2 emissions and cost.

Although investments into smart grid technologies and applications will generate costs, it is essential to consider the very real benefits that smart grids applications are likely to provide for energy consumers as well as for society as a whole. Considering the significant potential benefits of smart grids to optimise the EU energy system as a whole, from production to distribution and consumption of energy, smart grids must become a priority area for the European energy strategy.

4. Transport

The transport sector represents approximately 19% of the overall energy consumption in the EU. Even though the share of electricity is rather small, technologies provided by the industry have a decisive role to play on the use of fossil fuels. The transport and logistics sector are vital for the competitiveness of all industries, for example because of the costs implied for consumers and for the complete goods supply chain.

The key challenges are, first, to ensure the competitiveness of industry and sustainable transport, second, to overcome political barriers, in particular in cross-border transport or infrastructures, and finally to foster the diffusion of technologies.

III. Conclusions

Orgalime supports the Energy efficiency plan 2011 as an initial step, and in particular the following concrete measures:

- Improving implementation of existing legislation, in particular Internal Energy market packages, Energy Performance of Buildings, Energy Labelling and Eco Design Directives, and ensuring appropriate market surveillance
- Ensuring consistency of the Efficiency Action Plan with the 2050 roadmaps and the Energy Strategy for Europe
- Supporting industry voluntary commitments, including voluntary targets, driving improvements on the market for energy efficient products, services and technologies
- Encouraging voluntary cooperation and agreement between industry and authorities for investments in energy efficiency, which should be encouraged by different financial incentives
- An active public sector, which promotes the adoption of energy efficiency, including high standards criteria and the factual conversion of these criteria for public procurement, as well as an higher focus on energy efficiency for buildings, transport and the development of smart cities
- The setting of ambitious targets for the refurbishment of all buildings, in particular a binding target going beyond the proposed 3% target for public buildings
- The systematic use of energy performance contracting, as well as the establishment of a framework ensuring fair competition and facilitating access to market for new actors
- Fostering the modernisation of the transmission and distribution grids to improve the efficiency of the whole energy supply chain
- Creating a smart, flexible and intelligent energy system - from production via transmission, to the use of energy- with a high level of security of supply and including both high efficiency conventional energy generation as well as an efficient integration of sustainable technologies, such as for example highly efficient household appliances, wind power, solar panels, photovoltaic, biomass, electric vehicles or heat pumps.

- Fostering research and innovation and the dissemination of already available innovative technologies, such as through the financing of the SET-plan
- Promoting education of all actors, from consumers to the whole business chain and associated services, such as installation and maintenance
- Raising the awareness of end users regarding energy efficiency, including through promoting the use of smart grids, smart metering technologies, and smart appliances
- Developing benchmarking and good practices sharing with harmonised and transparent performance criteria, which could be used on a voluntary basis

However, we have concerns on the following elements of the Energy Efficiency Plan:

- The appropriateness and effectiveness of targeting industrial equipment and processes under the Eco Design Directive
- Applying labels for industrial products also and the multiplication of labels on consumer products
- Setting mandatory energy audits for large companies instead of existing voluntary energy audits and applying different rules for large and small companies.

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