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## **ENERGY EFFICIENCY ACTION PLAN 2011**

### **EXECUTIVE SUMMARY**

Energy efficiency is a key issue for European engineering industries represented by Orgalime. Our industries are major energy consumers and also the industries which provide the enabling technologies for achieving energy and resource efficiency on a very broad basis (from production, to distribution and to the consumption phase).

We support an ambitious Energy Efficiency Plan, which would take into account the following core principles:

- A full implementation of existing EU legislation
- A consistent, stable and predictable regulatory framework
- A global and integrated approach
- EU leadership in technological innovation
- The promotion of lead customer markets here in the EU
- An active public sector which promotes the adoption of energy efficiency including by example
- A push for education, training and information campaign on energy efficiency

We feel that the most economic and simplest way to reach the EU 2020 energy efficiency objectives is to focus on the inefficient 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 bear particular potential for realising substantial energy efficiency improvements.

In terms of concrete measures, Orgalime would support the following actions:

- Ambitious targets for the renovation of buildings, existing and new
- A systematic use of energy performance contracting
- 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
- Investment in and use of smart grids and smart metering technologies
- A better dissemination of already available innovative technologies and products
- Case by case decisions on whether to apply a product or a systems approach for the implementation of the Eco Design Directive depending on the targeted product group
- Investment plans of the public sector in public infrastructures, buildings, transport and smart cities
- A better consideration of energy efficiency aspects in public procurement
- Creating a flexible and intelligent energy system with a high level of security of supply and including both high efficiency conventional energy generation as well as an efficient

*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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integration of sustainable technologies, such as for example wind power, solar panels, biomass, electric vehicles or heat pumps.

- Increased R&D in energy efficiency technologies
- 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

However, Orgalime recommends abstaining from replacing existing voluntary energy audits by mandatory audits and from applying different rules on large and small companies. We also feel critical about the use of market-based instruments to give incentives for energy savings, especially since insufficient harmonisation still causes market distortion.

We specify our comments hereafter:

Energy efficiency is a key issue for European engineering industries, which play a strategic role in the European economy. Orgalime industries are major energy consumers and also enabling industry and driving energy and resource efficiency on a very broad basis (production, distribution and consumption). 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.

Our industries have the ambition to remain a global leader in sustainable technologies and to play a leading role in the emerging “green economy”. Orgalime is, therefore, particularly committed to contribute to the achievement of the EU 2020 objectives, which we fully support. In the framework of the ELECTRA High Level Experts Group, in which our industry has, in cooperation with the European Commission and other stakeholders developed a series of recommendations for realising the EU 2020 objectives. If implemented, these recommendations render these targets achievable.

In view of the upcoming Energy Efficiency Plan 2011, Orgalime would like to contribute to shape the European energy efficiency policy.

## I. Main principles for a successful energy efficiency policy

Against the background of the various EU legislations affecting Orgalime industries and the experience gained with the implementation of environment and energy legislation, such as the Energy Performance of building and the Eco design Directives, Orgalime supports the following main principles to achieve a successful energy efficiency policy:

- **A full implementation of existing EU legislation**

A comprehensive mix of existing voluntary and regulatory instruments is already in place. The full implementation of already enacted legislation, such as the 2nd and 3rd Internal Energy market packages, the recast directive 2010/31/EU on Energy Performance of Buildings, the Energy labelling Directive, must therefore be ensured within all Member States. Effective market surveillance should also be provided through appropriate resources at the level of the Member States.

- **A consistent, stable and predictable regulatory framework**

It is important to develop a consistent and coherent EU legislative environment to avoid overlaps and legal uncertainty that penalise manufacturer, and to secure the competitiveness of EU

industries. For example, minimum energy performance requirements for buildings should be consistent with eco design requirements. Regarding the EU energy policy, measures set up in the 2011 Energy Efficiency Action Plan should be in line with the 2050 roadmaps and fully integrating 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 brutally 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% CO<sub>2</sub> emission reduction targets. At the same time, these effects illustrate the necessity to design such incentive schemes more carefully to ensure that they are economically viable even in times of crises.

- **A global and integrated approach**

Installed conversion systems from primary energy to useful forms of energy are inefficient and improvements are therefore necessary throughout the whole energy supply chain.

Since all the various stages of energy supply are inter-connected and inter-dependent, all segment of the chain should be involved from power generation to transmission and distribution, including equipments manufacturers that are the providers of key technologies.

- **EU leadership in technological innovation**

Energy efficiency and CO<sub>2</sub> 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, such as financing the SET-plan, is therefore of utmost importance. The innovation policy should focus in areas such as, for instance, e-health, 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.

Investments 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 area of energy efficiency 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 development and uptake of energy-efficient technologies, and become a leader in setting standards.

- **The promotion of Lead Customer Markets**

The 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 customers 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.

- **A leading public sector**

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

- **Pushing education, training and information campaigns on energy efficiency**

Raising the general awareness regarding energy efficiency is a vital prerequisite to achieving efficiency improvements. It is of utmost importance to educate all actors, including consumers and the whole business chain (architects, engineers, auditors, installers), to install efficiency solutions which are often composed by a range of products. Whereas energy efficiency technology is more and more technical and diverse, associated services (e.g. installation and maintenance) ought to be provided by properly trained professionals.

## II. Priority sectors for a successful energy efficiency policy

There is immense potential in Europe and in the world to increase energy efficiency that can be achieved through behavioural changes and education as well as through cost-effective technologies. 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, pumps, there is still room for improvements. 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 diffusing technologies, which are already available today.

- **Buildings**

Considering that over 80 % of existing buildings will still exist in 2020, refurbishments of existing buildings should be the top priority to successfully underpin the EU's energy efficiency and climate change policy. Ambitious objectives for renovation should therefore be set up, including for the existing building stock of the public sector. This should be complemented by an easier access to funding to improve refurbishment financing, since an improved access to energy efficient technologies would favour a much greater exploitation of the energy savings potential in buildings.

Changes in consumption patterns are also a vital prerequisite for realising energy efficiency improvements. Raising the awareness of the consumer or end user on the energy consumption data of his building is a pre-condition for the 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.

Energy Performance Contracting has already proved to be very efficient in some member states, specifically in the public sector, allowing financing of the energy saving actions and investments through future energy savings. Extended use of Energy Performance Contracting should therefore be facilitated and promoted.

Eco Design requirements set up in the framework of the Eco design Directive can be complemented with new EU-wide measures tackling the efficiency of installations or systems. Whether to go for a system related approach rather than a product approach should be decided on a case by case basis depending on the better way to address the full potential of energy savings.

- **Infrastructures**

The current regulatory framework in many member states and varying political support do not

create 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 flexible 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, e.g.: wind power, solar panels, biomass, electric-vehicles, heat pumps, and also offers 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 optimize the EU energy system as a whole, from production to distribution and consumption of energy, smart grids must become a priority area for the future energy strategy.

- **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. Areas of caution

However, we would recommend to be careful with the following proposals:

- Setting mandatory Energy audit for large companies: while we support energy audits, we believe that they should remain on a voluntary basis and be encouraged by appropriate incentives rather than becoming a mandatory tool. 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.
- Using market-based instruments to give incentives for energy savings: a more co-ordinated approach at European level would prevent market distortions. In addition, the use of market based instruments, in particular tax incentives, is sensitive and price signals would have to reflect the true costs.

### IV. Conclusions

To conclude then, Orgalime supports an ambitious Energy efficiency action plan and, therefore, we would support the following elements and actions:

- Improving implementation of existing legislation, in particular Internal Energy market packages, Energy Performance of Buildings and Eco design Directives
- 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

- A leading public sector with higher focus on energy efficiency for public procurements, buildings, transport and the development of smart cities.
- Ambitious targets for the refurbishment of buildings and the systematic use of energy performance contracting
- Fostering the modernisation of the transmission and distribution grids to improve the efficiency of the whole energy supply chain
- Fostering research and innovation and the dissemination of already available innovative technologies, i.e.: through the financing of the SET-plan
- Raising the awareness of end users regarding energy efficiency, i.e. promoting the use of smart grids & smart metering technologies
- Developing benchmarking and good practices sharing with harmonised and transparent performance criteria, which could be used on a voluntary basis.

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