ORGALIME

Position Paper

Brussels, 8 October 2007

A TOP RUNNER APPROACH IN EUROPE

1. EXECUTIVE SUMMARY

The Commission and European regulators are discussing, especially in the context of implementing the EU's energy and climate change policy objective endorsed by the European Council on 8/9 March 2007, the applicability of a number of potential policy instruments in Europe, including the so-called "Top runner approach" that exists in Japan.

In this position paper, Orgalime, after analysing the Japanese top runner, presents our industry's view for a European Top Runner Approach on the basis of existing EU instruments, which is both, ambitious and in line with the EU's objectives to reduce emissions by 20% by 2020, to improve energy efficiency by 20% by 2020 and to increase the share of renewable energies by 20% by the same date.

2. WHAT IS THE JAPANESE TOP RUNNER APPROACH?

The "Top runner approach" has been introduced in Japan in 1998 when revising the Japanese Energy Conservation Law and consecutive government ordinances. In summary, the Japanese Top Runner uses, as a base value, the value of the product with the highest energy efficiency on the market at the time of establishing standards for such products. Standard values are set taking into account potential technological improvements leading to better energy efficiency. The producer is allowed to conform to the standard by "average fleet": all products should achieve this level of energy efficiency performance after a certain time frame. In case of non-compliance after expiry of the given transition period, firstly, the manufacturer of the product would be "advised" to ensure the product's compliance in a "recommendation" issued to him by the Ministry of Economy, Trade and Industry (METI). If the non-compliance continues, the manufacturer will be challenged by a system of marking poor performing products and may potentially be penalised. If penalised, such sanctions would amount up to a maximum of 1 Mio. Yen, that is some 7400 Euro. Orgalime is not aware of any penalties issued to date. Compliant products may be labelled voluntarily under the top runner approach. Therefore, labelling can vary between products belonging to the same targeted product group.
To our knowledge, the 21 product groups targeted by the top runner in Japan include automotive and certain ICT, household and office appliances (e.g.: TV sets, video recorders, copying machines, PCs, fridges, gas cooking appliances, gas and oil water heaters, air conditioners, fluorescent lights, transformers).

Japanese industry stakeholders are involved in the process of both selecting target product groups and of setting evaluation standards.

Orgalime, the European Engineering Industries Association, speaks for 35 trade federations representing some 130,000 companies in the mechanical, electrical, electronic, metalworking & metal articles industries of 23 European countries. The industry employs some 10.6 million people in the EU and in 2006 accounted for some €1,779 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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3. WHAT ARE THE DIFFERENCES BETWEEN THE JAPANESE TOP RUNNER AND EXISTING EU INSTRUMENTS?

A broad variety of different voluntary and mandatory environment policy instruments apply in the EU on the industries represented by Orgalime and the products manufactured by it, including unilateral commitments (e.g.: CECED unilateral commitments on washing machines (1997), home dishwashers (1999), home electric storage water heaters (1999), refrigerators, freezers and their combinations (2002, updated 2004) or their secondary voluntary agreement on washing machines (2002))[1], but also regulation, such as the Waste Electrical and Electronic Equipment, RoHS or Eco Design of Energy Using Products directives or the recently adopted REACH regulation).

With respect to the implementation of energy policy objectives, and the EU commitment to cut emissions by at least 20% by 2020, the institutions underline the potential of the abovementioned Eco Design of Energy Using Products Directive (EuP) and its future implementing measures. The directive, which is cited one of the leading examples of Better Regulation, is considered as a tool to reach these energy objectives.

Orgalime identifies the following **main characteristics and differences between the Japanese top runner and EU policy measures, and the EuP directive in particular**:

- The Eco Design directive follows an approach **based on life cycle thinking** and thereby addresses in an integrated way all environmental aspects (e.g.: emissions to water, air or soil, substance aspects, noise, waste or energy efficiency aspects) throughout the whole life cycle of a product (i.e.: from cradle to grave). This is a concept that is necessary **to avoid adverse environmental effects,** since improving just one aspect could involve higher environmental impacts on other aspects, thereby worsening the overall environmental performance of the product. The Japanese top runner, instead, has an isolated focus on one sole environmental aspect and addresses one life cycle phase only, namely energy efficiency in the use phase of the product. **Experiences** on applying the Japanese top **runner beyond the energy efficiency aspect** and other stages of the life cycle, e.g.: resource management or waste, **do not exist** today.
- It remains unclear to us how the Japanese top runner approach could accommodate the reality that the significance of environmental aspects differs from product to product.
- The Eco Design directive integrates the three pillars of sustainable development, environment, social and economic, on an equal basis. The Japanese top runner, however, focuses on the energy aspect solely.
- As to energy efficiency improvements, the Eco Design directive works from two ends: It **cuts off** and therefore **immediately bans products from the market** that don't fulfill the given minimum energy efficiency requirements for the product categories for which energy efficiency has been identified as priority area for environmental improvement, following a least life cycle cost analysis. For placing a product on the market, it is mandatory to affix the "CE" marking on the product. At the same time, the Eco Design directive encourages and attributes incentives to products at the top end of performance for the environmental aspect in question by acknowledging presumption of conformity to products, which bear the **eco label as a marking of excellence**. Management systems that are in place in a company can also facilitate conformity assessment procedures provided that the environmental elements are implemented in the management system.
- The **Japanese top runner does not restrict market access for any product**, whether the particular product meets the target standard or not. The Japanese top runner mainly works with a **"name and shame" marking scheme**. Such a system may work well in Japan due to the specific enterprise culture. Serious doubts arise for adapting it to the

[1] These agreements saved 17 Mio. tons CO2 in ten years. Also, while in 1995, no refrigerator or freezer carried an A energy label, in 2005 over 50% of these appliances are classified class A.

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reality of the European market that is already today open to unfair competition. Moreover, in case of non-compliance after the given transition period the product would not be banned in Japan from the market, but first be challenged by a system of marking products that are lagging behind the target and eventually penalised. Orgalime is not aware of any penalty issued to date.

- **Cultures and philosophies** behind the EuP and the Japanese top runner concept consequently differ fundamentally, as the above mentioned divergent enforcement rules demonstrate: the possibility of a top runner approach where all products, including non compliant ones, can potentially remain available on the market, contradicts the European strategy applied to date and which, for example for domestic household appliances and ICT, combines energy labelling and minimum energy efficiency requirements. As far as energy is concerned, this EU approach has made it possible to cut off the least performing products from the market. Shifting to the Japanese top runner approach would theoretically imply that **Europe would be taking a step backwards by allowing the re-introduction of goods that are currently banned from the European market.**
- The Eco Design directive explicitly states that "*in principle the setting of an eco design requirement shall not have the consequence of imposing proprietary technology on manufacturers" and that a wide disparity in the environmental performance of EuP's available on the market with equivalent functionality*". The Japanese top runner does not explicitly require a wide disparity of availability of products and technologies, thereby cutting off the innovation potential that may exist in certain technologies. On the contrary, in its present form, the **Japanese top runner risks leading to discrimination of technologies**.
- Implementing measures to the Eco Design directive are required to ensure **cost effectiveness** of measures and for energy efficiency aspects the **least life cycle cost** principle is to be applied (which is also applied in the U.S.A.). Under the Japanese top runner, manufacturers are supposed to compensate production of non-compliant products with production of more performing ones (**weighted fleet average**). Information or data on the cost effectiveness of the top runner are not available.
- Not all consumers can afford best performing products. Their purchase decision is often dominated by price considerations notwithstanding the increasing environmental consciousness of European citizens. Giving the chance to unscrupulous players to abuse of this situation of limited knowledge and/or limited purchasing power of consumers to remain on the market is wrong from our standpoint. In fact, some consumers are likely to buy very low end products under the influence of attractive prices, but regardless of total cost of ownership and/or environmental consideration over the product's life cycle. Such a possibility will hamper the market transformation, which makes it possible to progressively improve the quality of low end goods for a stable price. It is also fundamentally against the process of "getting the price right" and the change towards more sustainable consumption patterns called for by the Council.
- The Japanese top runner approach does not foresee an engineering economic analysis, which would assess the economic, environmental or social impacts of an envisaged potential target standard, while under the Eco Design directive impact assessments are mandatory in order to identify the economic-social effects and the overall acceptability of a planned measure.
- Implementing measures under the Eco Design directive are required to ensure that products remain affordable for consumers. **Consumer affordability** and **consumer choice of a wide variety of different products with similar functionalities** are not particular issues under the Japanese top runner. The **heterogeneity of the 27 member states markets,** in particular regarding customers' habits and purchasing capacities, would make the Japanese top runner unworkable in the context of the Eco Design directive.
- Besides, the Japanese top runner is unworkable in the context of EuP given the **size of the EU market**, made of 27 different markets in an enlarged EU, with a huge and burdensome statistical task to monitor sales and enforce the scheme.

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- The Japanese top runner is based upon **ambiguous and vague terminology.** Orgalime particularly questions how "best performing" or a "green" product could be reliably defined. **Adverse environmental effects** may occur: what may be best performing for one environmental aspect may not be best performing for another one (i.e.: RoHS example lead free soldering or EoLV: less lead but more energy needed for higher soldering temperatures). Orgalime understands that for targeted refrigerators, it appears that the Japanese top runner standard falls behind existing EU average standard and EU best practice.
- In addition, what may be considered the best performing product at the moment of setting the target at a specific date does not necessarily mean that, at the moment of entry into force, the chosen solution is still the best performing. Markets evolve quickly, especially in the area of energy using products. There are certain product groups, which are characterised by extremely short innovation cycles (e.g.: information technology equipment).
- The **loose enforcement and market surveillance angle with its different approach of "bad marking"** instead of setting harmonised product requirements for market access risks generating unfair competition and weakens the implementation of environmental objectives.
- The Japanese top runner also does not give representative information on the actual energy use of a product or on aggregated energy savings for the targeted groups. As mentioned above, labelling of compliant products is voluntary. The **top runner cannot reliably guide consumers in their purchase decision** and therefore **fails to be a workable incentive for producers**.

In summary, a **significant number of differences and drawbacks** exist for the application of the Japanese top runner approach. In particular, key uncertainties remain regarding **market surveillance and enforcement, legal certainty, providing a level playing field to companies, penalties or definitions. Adverse environmental effects** can be expected to occur with the application of the Japanese top runner approach. Introducing a new instrument at EU level, practically based on the Japanese top runner, in addition to or instead of applying the Eco Design directive would, in our opinion, lead to significant delays thereby undermining the possibility of reaching the targets set by the EU for 2020.
In the light of these fundamental divergences and concerns, but in particular since there is **no evidence available that demonstrates the added value of the top runner for the environment or for consumers** in comparison to existing EU instruments, and the Eco Design directive in particular, Orgalime takes the view that the Japanese top runner is not consistent with European framework and should not be introduced in the EU. What we believe is needed instead is a European top runner model, which we describe hereafter.

4. WHAT WAY FORWARD IN THE EU?

Orgalime is committed to actively contribute to the implementation of the EU's environmental policy objectives, including its climate change and energy policy goals.

In our opinion, a European top runner model should consist of a combination of appropriate framework conditions to foster an investment friendly climate in Europe and a mix of several measures, voluntary and legislative:

- **Appropriate framework conditions in Europe.** We request EU regulators to maintain, or where they do not exist to introduce, the right framework conditions that would not put European manufacturers at disadvantage against their competitors at global markets. Orgalime believes that a better investment, climate coupled with proper framework conditions for our industries and our clients in the internal market, are a prerequisite for

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further European investments in energy efficiency technologies. Such conditions should include the following focus:

- Ensuring fair competition in the marketplace
- Ensuring proper market surveillance
- A better R&D and innovation policy
- Improved education policy (improved education policy, which both, provides skills necessary to develop new technologies, but also sensitises consumers to the needs arising out of the ECCP and our environment)
- A legislative framework that helps to achieve the above listed goals and is consistent, unambiguous, predictable and workable
- Less administration and red tape

Moreover, when investment decisions are made, companies inevitably prioritise their investment into those areas, which for a given level of risk offer the best return and perhaps the best future potential.

Activities at both EU and national level would, in our view, become necessary to foster a better investment climate in energy efficient technologies. In the field of consumer goods, in particular, market forces drive new investment. Therefore, addressing the demand side and transforming awareness of consumers into consumption of energy efficient products provide the basis for exploring a potential of energy efficient technology investments. Also, in sectors, such as the domestic household appliances sector, where manufacturers control less than 1/5 of industrial costs and margins decreased by some 25% from 1999 to 2003, the rate of return of further energy efficiency investment is somewhat limited both in terms of economics and of the environment.

At EU level, in the area of R&D, the 7th Framework Programme and Intelligent Energy Europe provide solutions for implementation problems and help customers buy the most efficient technology. Priority setting in the framework programme, as well as giving the existing programme a sufficient degree of priority, however, could be reconsidered in order to foster energy efficiency investments in the future.

Orgalime supports an implementation of the EU's energy policy objectives that is cost effective, unambiguous and enforceable. It should be built upon experiences of existing mechanisms that proved effective and efficient in the EU and follow coherence and consistency with existing EU legislation.

- **A sound mix of policy instruments.** Orgalime believes that the following principles should guide improving the energy efficiency of engineering products:

  - Maintain a level playing field for companies that provides for fair competition, including both, fair competition as relates to product features but also as relates to the aspect that European engineering production processes are subject to more stringent (and more costly) environment rules in comparison to their foreign competitors that produce in other regions of the world with lower compliance costs
  - Improve implementation and enforcement of existing environmental legislation
  - Ensure enforceability of requirements and proper market surveillance
  - Take action where it is most cost efficient, i.e.: measures should be taken where benefits and CO2 reduction can be achieved at the lowest cost
  - Such proper cost benefit analysis of priority actions should be coupled with an analysis of the capacity of the political economy as a whole as well as the maximum capacity of companies to bear additional costs without having to dislocate production from Europe to other parts of the world, where less stringent requirements apply

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- Let the consumer enjoy the benefit of the internal market, namely an as broad as possible choice of different products with different technologies and at competitive prices

Orgalime proposes the following elements to be part of the EU's top runner model to implement the ambitious and challenging energy objectives:

- Energy efficiency improvements of European engineering products must fully respect the framework established by the Eco Design of Energy Using Products directive. Additional or multiple legislation would be arbitrary and would weaken the implementation of the directive, which regulators quote as an example of Better Regulation and for which implementation is just ongoing.
- As a framework law, the Eco Design directive encompasses all environmental aspects, including energy efficiency, over the life cycle of a product. This concept helps to avoid adverse environmental aspects, which we support.
- Inconsistencies of other legislation applying on Orgalime industries should be reduced. In particular, overlapping eco design requirements such as currently proposed under the draft waste directive and as included in article 4 of the WEEE directive, are rendered outdated and should be deleted.
- Minimum energy efficiency requirements should be established to cut off least performing products in areas, for which energy efficiency, after a least life cycle cost analysis, has been identified, in consultation with the industry sector concerned, as a priority area for environmental improvement.
- Eco design requirements could, in our view, be made more dynamic and at the same time provide a more long term perspective for companies, if a kind of "push and pull" model were adopted that combines mandatory targets and their periodical update, according to B.A.T, with optional standards at the choice of the manufacturer. Such dynamic requirements should also be coupled with a positive recognition of achievements already made by the industry and particularly opt for a way that ensures reasonable return on investment.
- The penetration of sustainable products in the market and the transformation of the market towards more sustainable ones might, for a limited period of time and for certain sectors, be initiated by providing incentives, such as fiscal incentives and awards for first movers. However, any award system should not result in the consumer erroneously concluding that any product not "rewarded" would equal a "bad product". This could, for example arise if reduced VAT rates were applied for sustainable products. A positive perception of the value of the product could in our view be secured by including a scale that indicates the different levels of achievements and the requirements concerning the least performing product. Award schemes that appear worth investigating to us include tax credits granted directly to the consumer or cash back schemes and focused rebates for the purchase of energy efficient appliances. In principle, the definition of what would be considered a "sustainable" product should be determined from an economy perspective and therefore also consider other important factors, such as safety, fitness for purpose, quality, expected lifetime or user friendliness.
- Such an understanding of combining dynamic requirements and incentives would also reflect the reality that not all companies will be in a position to make giant leaps within short time scales, which is particularly true for SMEs, while others that have the capacities and resources to move further, can do so and can expect rewards for their action. We agree with the Commission's proposal that "awarding frontrunners" would have to be predictable. It would in our view also need to be balanced. Otherwise, there would be the risk of trading off potential energy savings and environmental product performance against detrimental impacts on the competitiveness of companies, and particularly SMEs. This would run counter to the "think small first" principle.
- We believe that the first mover will have an advantage in so far as technologies, which are developed, are indeed taken up both, in the EU and on export markets. We

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therefore strongly believe that the EU should internationalise the discussion on uptakes of sustainable technology in order to generate a real competitive advantage for first movers, rather than to generate a potential competitive disadvantage, which may arise from developing technologies which only have a limited market. In this context, Orgalime supports developing lead customer markets. The present "lead market concept" of the Commission focuses on a "top down" approach driven by technology. Our industry, however, believes that innovation is essentially - and should remain - driven by the market, that is the end user, either private or professional. Rather than talking about technology driven lead markets, we suggest discussing lead *customer* markets: this is where our industry would gain advantages of being first movers in technologies, which are developed and applied first in Europe due to the demand of its customer base. For example, we can cite that EU manufacturers are world leaders in automation for the machinery and automotive sectors due to the continuous demand of these sectors for innovative products. In conclusion, it should be the customer, private or professional, who determines what would be a lead customer market rather than the state or government.

- Europe should not act in an isolated manner, but should pursue global cooperation, especially in developing common international standards applicable internationally.
- Further developments of the EU energy label in the area of consumer products may equally drive competition. In the area of B2B, however, less can be gained from mandatory labelling requirements.
- Awareness raising campaigns for end users and education and training measures on savings potentials and implementation should be promoted.
- With respect to public procurement, more attention should be given to factors such as the energy cost savings provided by equipment such as electric drives, which should be included in the evaluation process of submitted offers. Likewise, for areas such as the lighting sector, the application of European technical standards would be appropriate.
- Within the EU, R&D on energy efficient technologies should be promoted.
- Regarding the use of market based instruments, and trading schemes more particularly, Orgalime believes that more experience is necessary before the mechanism could be applied more widely at EU level. Orgalime is at present working on a policy vision in this area.
- Orgalime takes the view, that the framework established by the Eco Design directive is a valuable one that should not be lost by introducing new elements or approaches via other legislation (such as the announced Action Plan Sustainable Consumption and Production) that would conflict with fundamental European principles, i.e.: the functioning of the internal market and fair competition.

4. CONCLUSIONS

Orgalime looks forward to contributing to efficiently address the global challenge of climate change and energy policy.

We believe that the following principles should underpin a European "top runner" approach:

- A holistic approach to sustainability and an integrated approach of life cycle thinking
- Economic efficiency, as the determining factor for identifying actions and measures
- Fostering of the penetration of existing sustainable products
- Cutting off least performing products from the market
- Global action which does not undermine the competitiveness of EU engineering industries nor IPR
- Full impact assessment and scientific approach for adopting envisaged measures
- Fostering lead customer markets that follow a bottom up approach instead of a technology driven top down approach

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- Establishing of an award system that includes focused rebates, cash back schemes or tax credits
- Respecting the souvereign right of the consumer to choose a product

The European top runner model proposed by Orgalime, which integrates a combination of appropriate framework conditions and the implementation of existing regulation, in particular the Eco Design of Energy Using Products Directive, which provides a reliable, efficient and timely instrument for implementing energy efficiency improvements while fostering a level playing field in the EU, will no doubt help the EU to achieve its energy and climate change objectives without creating legal uncertainty and hampering innovation. The flexibility and pragmatism of the approach should both provide a secure legal framework in line with Better Regulation principles and underpin the long term competiveness of our industry in Europe, while at the same time supporting the policy of the European institutions.

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