

## POSITION PAPER REGARDING PRIMARY ENERGY & LABELLING FOR THE IMPLEMENTATION OF ECODSIGN DIRECTIVE

AEGPL and MARCOGAZ, the EU-level representatives of the LPG and natural gas industries respectively, fully support the European Commission's efforts to increase energy efficiency in the EU in general and to improve the performance of gas appliances under the framework of Directive 2009/125/EC on the eco-design of Energy-related Products (ErP) in particular. Both organisations are therefore committed to supporting and contributing to the preparatory activity currently being undertaken on all eco-design lots relevant to our industries and to standardisation process at European level.

The present document presents general views for eco-design implementation covering products using gas. It is complementary to specific position papers already produced separately by the signatories, especially on lots 1 (boilers) and lot 2 (water heaters).

### **Primary energy:**

The opportunity of using final energy to express energy consumption, instead of the usual primary energy indicator, was raised during many stakeholder meetings (regarding boilers, water heaters, independent heaters, hobs, grills, ovens, etc.). The main argument developed by the supporters of such a change is the need to take into account the differences of power mix at Member States level for implementation of the ErP and environmental labelling directives. AEGPL and MARCOGAZ stress that such a statement is incompatible with the objectives of these directives<sup>1</sup> and moreover, are inconsistent with the **reality of the integrated power system at European level on legal, economic and technical basis** (cf APPENDIX 1: "POWER MIXES AT EUROPEAN LEVEL"). Considering the objectives of both directives and the reality of European power system which aims to emerge a common internal market in EU, preparatory activity on ongoing eco-design lots should reasonably be based on the use of **primary energy to express energy efficiency** - with the current primary energy factor of 2,5 for electricity compared to other fuel expressed in Net Calorific Value (NCV) as stated in the Energy Services Directive, as already taken into account in lot 1 and lot 2.

Expressing **primary energy** consumptions provides a fair comparison of products using different energy sources (as electricity or fossil fuel energy) regarding energy performances and overall environmental impact. Primary energy is also the only way to provide **accurate, relevant and comparable information** on the energy consumptions of energy-related products to the end-users, in accordance with the energy labeling directive goals. That is why both the Commission and the stakeholders decided to express the product's energy consumptions in primary energy for example in implementing measures on boilers, water heaters and household tumble driers.

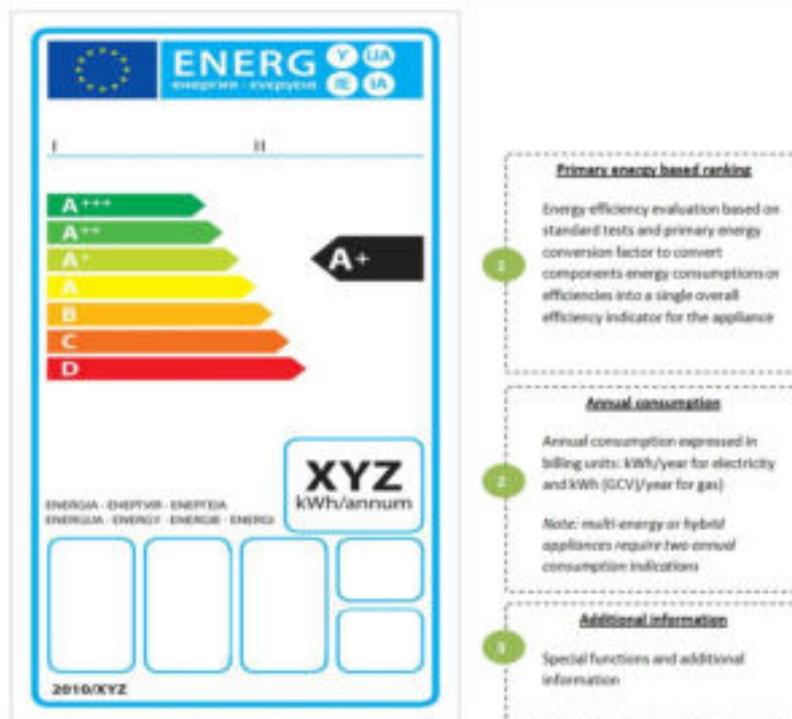
Primary energy consumptions are also the only way to express hybrid system performances at a product level such as hobs with both electric and gas hobs or gas appliances using electricity for advanced controls.

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<sup>1</sup> Directive 2009/125/EC: (8) *A coherent framework for the application of Community ecodesign requirements for energy-related products should be established with the aim of ensuring the free movement of those products which comply with such requirements and of improving their overall environmental impact. Such Community requirements should respect the principles of fair competition and international trade.*

**Labelling proposal:**

AEGPL and MARCOGAZ are in favour of an **Energy Label for domestic products to implement the measures of the eco-labelling directive**. Such a label should give European consumers a fair and simple basis to compare products that fulfil the same functions. Therefore, **a common label for gas or electric appliances based on primary energy** for ranking seems the most adapted option. Additional information can be provided, such as **annual consumptions of gas and electricity in billing units**. This label should remain simple (for example a common label for an entire hob and not for each cooking plate) and capable of reflecting the energy efficiency of all the technologies, even hybrid gas-electric ones (cf APPENDIX 2: "PRACTICAL EXAMPLE FOR MULTI ENERGY DOMESTIC HOBS EVALUATION"). In order to illustrate how a common label including primary energy could be used, we would like to suggest the following proposal for your consideration:



**We acknowledge that at this stage of the preparatory studies, policies for minimum requirements in the implementation of ErP directive, such as common gas and electricity requirements or separated requirements, should remain open.** We will therefore continue to support and contribute to preparatory studies and to upcoming stakeholders consultations organised by the Commission. While consultancy team should explore all the possibilities and consequences of the various scenarios for the implementing measures, we would like to stress on the other hand that this has to be done in a technology-neutral manner and keeping in mind the importance of being consistent with methodology used across all lots.

We look forward to continuing the cooperation with all stakeholders on the outstanding points outlined above and to the successful adoption of relevant implementing measures.

For AEGPL  
Ram3n de Luis Serrano  
Executive President

For MARCOGAZ  
Daniel Hec  
Secretary General

## APPENDIX 1: POWER MIXES AT EUROPEAN LEVEL

### **European power grid and production is a technical reality.**

Power grids are fully interconnected at UCTE level: the same frequency is used, strong exchanges are possible and effective between Member States, security of supply is insured at European level by unique load-frequency controls. In addition, strong interconnections exist with EEC network (2000 MW connection between France and Great Britain) and NORDEL network (1700 MW between Netherlands and Norway and 2200 MW between Sweden and Denmark). The European investment program to address some of the weak interconnections (such as Spain – France) is being implemented, and will lead in the near future to a grid with technical capacities of massive power exchange throughout Europe without constraints. In this context, considering power grid and production at a Member State level is a conventional accounting outlook, but unrealistic for European policies.

### **European power grid and production is a legal reality.**

Making an interconnected internal electricity market is one of the European Union's (EU's) priority objectives since 1997, as laid down in the Communication of the Commission “an energy policy for Europe”. A number of similar statements on the matter have been published by the Commission since then. Some of them are listed below:

- Decision No 1364/2006/EC of the European Parliament and of the Council of 6 September 2006 laying down guidelines for trans-European energy networks and repealing Decision 96/391/EC and Decision No 1229/2003/EC
- Communication of 10 January 2007 from the Commission to the Council and the European Parliament entitled "Priority Interconnection Plan», which highlights the importance of considerable investment in the existing electricity networks along with rapid development of their interconnections.
- The 2008 Green Paper entitled “Towards a secure, sustainable and competitive European energy network”
- Regulation (EC) No 67/2010 of the European Parliament and of the Council of 30 November 2009 laying down general rules for the granting of Community financial aid in the field of trans-European networks
- Etc...

The emergence of an internal market in electricity has been the aim of three successive directives. The most recent one, directive 2009/72 CE clearly stresses the importance of an internal market in several of its “recitals”

*The internal market in electricity, which has been progressively implemented throughout the Community since 1999, aims to deliver real choice for all consumers of the European Union, be they citizens or businesses, new business opportunities and more cross-border trade, so as to achieve efficiency gains, competitive prices, and higher standards of service, and to contribute to security of supply and sustainability. (57) With a view to creating an internal market in electricity, Member States should foster the integration of their national markets and the cooperation of system operators at Community and regional level, also incorporating isolated systems forming electricity islands that persist in the Community.*

*(58) The development of a true internal market in electricity, through a network connected across the Community, should be one of the main goals of this Directive and regulatory issues on cross-border interconnections and regional markets should, therefore, be one of the main tasks of the regulatory authorities, in close cooperation with the Agency where relevant.*

The regulation No 714/2009 of the European parliament and of the council of the 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing regulation also highlights the importance of completing the internal market in electricity and creating interconnection capacities to achieve the objective of a well-functioning, efficient and open internal market.

Therefore, implementing measures of directives ErP and environmental labeling should not lead to the impression of separate national markets for electricity. On the contrary, the immediate perspective of an internal market should be reflected in the implementing measures, as was the case for the ETS directive 2009/29/EC.

### **European power grid and production is an economic reality**

With the emergence of a unique price of electricity in Europe, European power grid and production is an economic reality. The Central West European price market coupling and the Central West European-Nordic tight volume coupling are fully operational since November 2010, extending the former western European market between France, Belgium, Luxembourg and Netherlands (EPEX)<sup>2</sup>. Therefore, a common economic optimization will be possible at a European Level with the consequences of phasing out most expensive power plants (i.e. old oil or coal fired power plants which are also the most polluting ones) if energy savings are achieved, regardless of the localization of the power plants and the savings in the European Union.

Considering technical, legal and economic reality of European power grid and production, AEGPL and MARCOGAZ argue that a unique primary energy factor for electricity should not only be used by Member States but should be the basis of studies feeding into the work of the European Commission. AEGPL and MARCOGAZ acknowledge that the emission factor of 2, 5 compared to fuel expressed in Net Calorific Value as proposed in Annex I of Energy Services Directive reflects the reality of present power production in European Union. We would also like to underline that the present factor should be used, and not a hypothetical future factor considering possible technical evolution of power production. The latter option would indeed result in uncertainties on the process for such evaluation and on the benefits obtained by the addition of both energy efficiency progresses on production side and on end-use side.

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<sup>2</sup> Press release : [http://static.epexspot.com/document/10989/20101110\\_CWE-ITVC%20Launch.pdf](http://static.epexspot.com/document/10989/20101110_CWE-ITVC%20Launch.pdf)

## APPENDIX 2 - PRACTICAL EXAMPLE FOR MULTI ENERGY DOMESTIC HOBS EVALUATION

For mono-energy products (electric or gas hobs), evaluation of annual primary consumption will be simple with a conventional scenario of use. Furthermore, evaluation in primary energy allows to evaluate multi-energy products or products using gas and electricity such as gas hobs with electronic stand-by and regulation.

For example, the evaluation of an hybrid plate with 1 electric induction plate and 3 gas burners can be simple and complete, taking into account the entire energy consumption such as electric consumption of the electric plate, gas consumption of the burners and finally electric consumption of electronic stand-by and regulation.

Components	Consumption per cycle (kWh <sub>HHV</sub> ) (1)	Number of cycle per year (2)	Electricity consumption (kWh/year) (3) = (1)*(2)	Gas consumption (kWh <sub>HHV</sub> /year) (4) = (1)*(2)	Primary energy consumption (5) = (3)*2.5+(4)/1.1
Gas burner 1000 W	0,45	106	-	48	44
Gas burner 2000 W	0,9	106	-	96	87
Induction 1200 W	0,37	106	39	-	98
Gas burner 3000 W	1,36	106	-	145	132
Stand-by & regulation			9	-	23
<b>Total</b>			<b>48</b>	<b>289</b>	<b>384</b>

*Arbitrary values based on preparatory study for lot 23 / hypothesis of an equal split of cycle among hobs and a gas LHV coefficient based on 50% natural gas – 50% LPG (see task 3 for use and task 4 for efficiencies)*

Based on this kind of evaluation, a single label for the whole appliance can be provided: primary energy consumption will be used for energy class, electricity and gas consumption expressed in billing units will be used as additional information for the consumers.

The case is based on indicative values (final energy efficiency of 55% for gas burner and 90% electric induction plate). These values are not meant to indicate real performance of these types of appliances. For instance, for simplification purposes, consumption per cycles is linear to heating power (higher power burners or plates are used to cook larger quantities of food) and number of cycle is equally distributed between burners or plates.