

Come On Labels

Common appliance policy – All for one, One for all – Energy Labels

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APPLIANCE TESTING

National activities related to information exchange on market surveillance actions & results

(Work Package 3 - Deliverable 3.6)

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NOTE: according to international standards dealing with quantities and units, the numbers in this study are written according to the following rules:

- the comma “,” is the separator between the integer and the decimal part of a number
- numbers with more than three digits are divided by a blank in groups of three digits
- in case of monetary values the numbers are divided by a dot in groups of three digits

This document was prepared within the **Come On Labels project**, supported by the Intelligent Energy Europe programme. The main aim of the project, active in 13 European countries, is to support appliance energy labelling in the field of appliance tests, proper presence of labels in shops, and consumer education.

More information about the project results are published on: **www.come-on-labels.eu**

1. INTRODUCTION / SUMMARY

Energy labels are a crucial driver for market transformation, orienting consumers' choice towards more energy efficient appliances and thus realizing the potential of available technologies.

Unfortunately, a number of EU Member States do not regularly apply effective actions for controlling the correct labelling implementation and product compliance. Lack of resources, time, expert staff, budget and national certified laboratories are most often used as reasons for a low level of surveillance activities.

However, examples of good practices exist. To improve the amount and effectiveness of market surveillance, procedures and results should be exchanged and possibly harmonised among national Market Surveillance Authorities, thus leading to an optimisation of the available human, financial and time resources and in the end to a higher level of compliance verification activities and compliant products marketing on the Community market.

The Come On Labels project has therefore collected, in Deliverable 3.5¹, information about product testing undertaken in order to verify energy consumption and functional performance of the product energy labels. This information has been shared by the project partners in 13 European countries with the national Authorities, stakeholders and the media.

The main goal of this document (project Deliverable 3.6) is to collect publicly available information concerning the sharing of the market surveillance actions and results both at EU and international level. A better information circulation among the Market Surveillance Authorities will enable them to learn from the experience of other Authorities, to share procedures and results and will increase the possibility to apply the results on a mutual basis.

The following information sharing actions are described in more detail in this document:

- National actions by EU Member States
 - The Nordic countries project
 - The Netherlands market surveillance
- Intelligent Energy Europe projects focused on market surveillance and products energy efficiency
- Round Robin Test on refrigerating appliances promoted by the European Manufacturer Association
- The CEIS study on air conditioners testing funded by CLASP
- The UNEP/GEF en.lighten initiative.

¹ <http://www.come-on-labels.eu/appliance-testing/appliance-tests-2011-2013>

2. BEST PRACTICES ON INFORMATION SHARING FOR EU MEMBER STATES

2.1 *The Nordic countries project*

Financed by The Nordic Council of Minister and starting from 2011, the aim of the project is to develop the Nordic region countries' collaboration concerning market surveillance to check the accuracy of the information declared on the energy label and if products fulfil the ecodesign requirements for Sweden, Norway, Denmark, Finland and Iceland.

In March 2011, a decision was taken to test refrigerators compliance to ecodesign (Regulation 643/2009) and energy labelling (delegated Regulation 1060/2010). The DTI (Teknologisk Institute in Denmark) was selected for testing refrigerators. Two refrigerating appliances were found exceeding the declared energy consumption. The MSA of the involved countries were informed about the results for further action at national level and negotiations with national suppliers of the same model took place in several countries based on one test procedure.

This is a good example on how test developed in one laboratory could be used as the basis for a market surveillance action in a number of EU countries. Due to the success of the initiative, the cooperation project has been prolonged and could be also extended to the Baltic countries.

2.2 *The Netherlands market surveillance*

Another example of the successful information sharing is the use of laboratory services located in a different country, as it was developed in 2009 in the Netherlands. As shown in Table 1, 58 models of major household appliances and light sources were tested. Most of the tests on household appliances were done in the German laboratory VDE located in Offenbach.

Table 1: Products tested for compliance to the energy labelling in 2009 in NL

Product	Number of models	Number of tests	Laboratory
Refrigerators and freezers	11	17	TNO Apeldoorn
Washing machines	6	6	VDE Offenbach
Dishwashers	3	3	VDE Offenbach
Dryers	1	1	VDE Offenbach
Electric ovens	8	8	VDE Offenbach
Air conditioners	12	16	TNO Apeldoorn
CFL	17	85	VDE Offenbach

The testing of appliances followed a European procurement procedure, after which VDE Offenbach and TNO Apeldoorn were selected to carry out the tests for 2009.



Once the criteria for the selection of the laboratories are carefully set, the European procurement procedure is a way to ensure that only the best laboratories are used for the market surveillance. This procedure can ensure that laboratories with a high measurement accuracy are selected for compliance verification testing, and that national Authorities of other EU Member States could either use the testing results nationally or use the selected laboratories for their national surveillance actions..

3. IEE PROJECTS FOCUSED ON MARKET SURVEILLANCE AND PRODUCTS ENERGY EFFICIENCY

The Intelligent Energy Europe programme², operated by EACI, is an EU subsidy programme, supporting projects related to energy efficiency.

One of the funding priority areas of the programme is the promotion of energy efficient products, as well as market verification activities, supporting the proper display and declarations on the energy label. (Come On Labels project is one of such projects, funded by the same programme).

The following Table 2 provides an overview of the recent and current IEE projects in this area.

Due to the co-funding of the project with public money, the results of IEE projects have to be made publicly available, at least in aggregated form. In general, some projects publish all the results, including individual model names and test reports, some only publish aggregated results for the whole product group.

Selection criteria of individual models also differ within the project – from random selection from the market, to targeted selection based on higher risk of non-compliance, market share, product price and a combination of such criteria.

Typical project partners of these projects are energy agencies, consultancies and experts in energy efficiency, NGOs, and surveillance authorities.

² <http://ec.europa.eu/energy/intelligent/>

Table 2: Overview of the recent and current IEE projects on market surveillance and product energy efficiency

Project name	Coordinator	Duration	More information	Tested product(s)	Note
ATLETE	ISIS Italy	6/2009 – 7/2011	www.atlete.eu	Refrigerating appliances (82 models)	Full results, including model names and test reports available here : http://www.atlete.eu/index.php?option=com_content&view=article&id=125&Itemid=117
ATLETE II	ISIS Italy	5/2012 – 10/2014	www.atlete.eu	Washing machines (50 models planned)	Test results expected in 2014.
Euro Topten MAX	ADEME France	1/2012 – 12/2014	www.topten.eu	TV, LED lamps, tumble drier.	Tests results expected in 2014.
PremiumLight	AEA Austria	5/2012 – 10/2014	http://www.eac-i-projects.eu/iee/page/Page.jsp?op=project_detail&prid=2499	High quality CFL and LEDs (60-80 models)	Test results expected in 2013 and 2014
Ecopliant	DEFRA UK	4/2012 – 4/2015	www.ecopliant.eu	To be decided by participating countries	Test results (general, not for individual models) expected in 2014.
MarketWatch	EST UK	Spring 2013 – Spring 2016	n.a.	To be decided based on a higher risk of non-compliance	Expected in 2014-2015
CompliantTV	BIO IS France	Spring 2013 – End 2015	n.a.	TVs (125 models) and monitors (75 models)	Expected in 2014

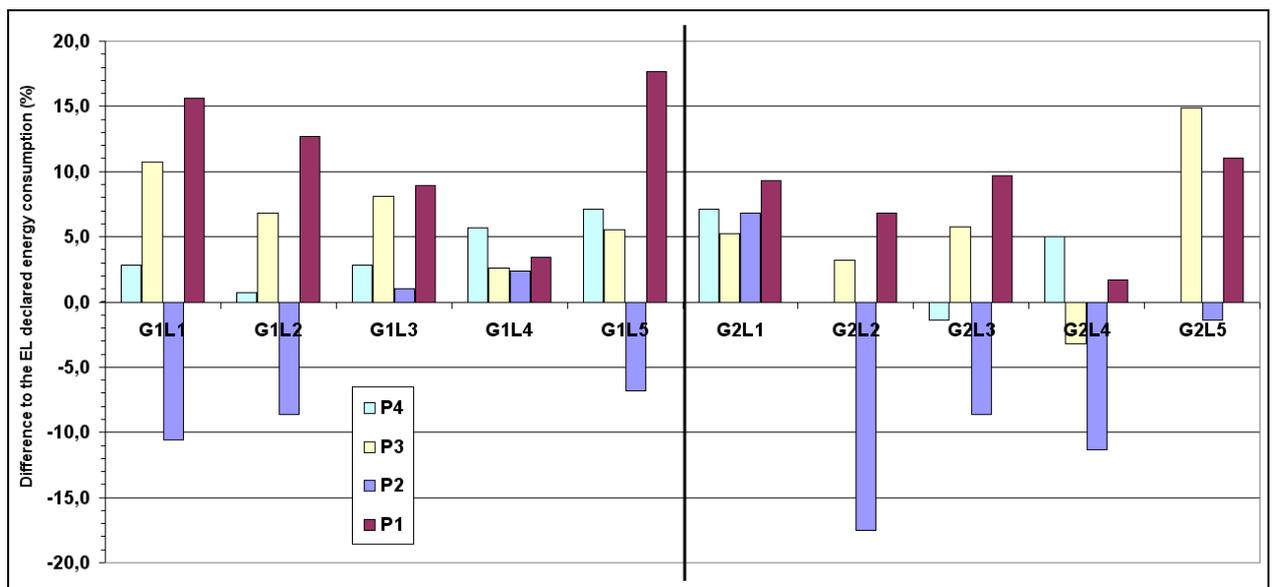
4. ROUND ROBIN TESTS PROMOTED BY THE EUROPEAN MANUFACTURER ASSOCIATION

In 2008-2009 CECED, the European Association of Household Appliance Manufacturers organised a Round Robin Test³ on refrigerating appliances, to be tested in independent (i.e. non-manufacturers) laboratories in order to assess *inter alia* the Laboratory to Laboratory results variation. Four different product types were selected: a refrigerator, a freezer and two refrigerator-freezers.

Two units for each model were chosen for the testing in two parallel rounds of 5 Laboratories each. The energy consumption (including storage temperatures testing) and the storage volumes were tested, according to the available EN153 standard.

The overall results are presented in Figure 1 below in terms of the difference between the declared value for the energy consumption and the measured value in each laboratory. No other results of the RRT are publicly available.

Figure 1: CECED RRT: comparison of the difference (%) between the measured and declared energy consumption for each model and laboratory



The conclusion of this activity is that it is of crucial importance to select laboratories with a high measurement accuracy for performing the compliance verification tests, since the conclusion of a test for the same product measured in different laboratories can be a compliance or non-compliance verdict at the same time.

³ A Round Robin Test entails that the same unit is tested in several laboratories for the same parameters

5. OTHER INTERNATIONAL EXPERIENCES

5.1 *The CEIS study on air-conditioning testing*

In 2011 Econoler, Navigant, CEIS and ACEEE realised a study⁴, funded by CLASP⁵, to provide tools and procedures allowing an international comparison of the energy efficiency and policy measures for air conditioners (ACs) with a cooling capacity of 19 kW or less used in the residential and commercial sectors.

The global study on air conditioner energy efficiency was divided into 3 parts, the third one presented the conclusions from a comparison of the testing of ACs under test procedures of various countries, and the actual testing of a limited sample of products under different test procedures.

The covered AC products were offered in the global market and were subject to testing procedures and regulatory or voluntary initiatives introduced in different economies: room air conditioners products with a cooling capacity of up to 19 kW, electrically driven vapour compression systems; cooling only units and the cooling function of heating and cooling units were considered. The study includes the following sub-categories:

- Non-ducted single split units (mobile or fixed split units)
- Non-ducted single split unit heat pumps
- Ducted single split units
- Multi-split units
- Single-packaged AC units
- Single and double duct units (portable ACs)
- Central AC units (rooftop units).

The main objective was to provide a meaningful comparison of the efficiency of air conditioner models sold in major economies. This has been done through an analysis of the market characteristics, minimum energy efficiency requirements and energy efficiency classes used for labelling schemes. In addition, conversion functions were developed allowing comparison of different efficiency metrics used across the world.

The study presents the testing standards used in each selected economy and then discusses the differences found among them. It also covers differences that can be introduced when testing the same AC in different laboratories (mainly due to installation settings not fully described by the standards) and finally analyzes the measurement tolerances and uncertainties with respect to the EER declared by the testing laboratory.

Some differences were identified between the test procedures in use in different economies. Many of these lead to different measurement uncertainties but most of them do not induce systematic differences in EER results. However, there are three differences that do lead to systematic differences:

⁴ <http://www.superefficient.org/Resources/~media/Files/RAC%20benchmarking%20-%20Report.pdf>

⁵ <http://www.clasponline.org/>

- testing temperature conditions;
- the length of the refrigerant piping; and
- fan correction factors for ducted units.

Testing temperature condition variations were taken into consideration while developing the conversion formulas between energy efficiency metrics.

5.2 *The UNEP/GEF en.lighten initiative*

The en.lighten initiative⁶, efficient lighting for developing and emerging countries, was created in 2009 as a partnership between the United Nations Environment Programme (UNEP), OSRAM AG and Philips Lighting with the support of the Global Environment Facility (GEF). The National Lighting Test Centre (NLTC) in China became a partner in 2011.

The initiative was established to accelerate global market transformation to environmentally sustainable lighting technologies by developing a coordinated global strategy and providing technical support for the phase-out of inefficient lighting; en.lighten assists countries in accelerating market transformation with environmentally sustainable, efficient lighting technologies by:

- promoting high performance, efficient technologies in developing countries.
- developing a global policy strategy to phase-out inefficient and obsolete lighting products.
- substituting traditional fuel-based lighting with modern, efficient alternatives.

Activities aimed at phasing out inefficient technologies have been increasingly introduced in recent years, yet market forces on their own have proven insufficient to achieve rapid lighting market transformation, especially in view of the urgent need to reduce emissions posed by climate change. There is a need to coordinate global efforts and provide technical support to assist countries in introducing efficient lighting transformation programs.

The en.lighten initiative addresses the challenge of accelerating global market transformation to environmentally sustainable lighting technologies by developing a coordinated global strategy and providing technical support for the phase-out of inefficient lighting. This will reduce global greenhouse gasses emissions from the lighting sector and mercury released from coal combustion.

The success of a transition strategy depends heavily on a well-functioning system of monitoring, control, and testing facilities capable of ensuring enforcement and full compliance with minimum requirements. Unless effective and timely market surveillance systems are enforced, non-compliant products will continue to enter national markets in increasing numbers, reducing energy and financial savings. Poor quality products may also create unfulfilled expectations and disappointment by end users who will refrain from purchasing these products on an ongoing basis in the future.

⁶ www.enlighten-initiative.org



The aim of compliance activities is to protect the market from products that fail to perform as declared. Additionally, they ensure that government regulators fulfil the objectives of their efficient lighting initiatives. The same activities also protect suppliers by ensuring that each manufacturer is subject to the same programme entry conditions. International and regional cooperation for enforcement through the sharing of test capacities, programmes and test data, is highly recommended for conducting cost-effective and efficient monitoring, verification and enforcement activities.

6. THE EU ADCO GROUPS

The EU has two official forums of Market Surveillance Authorities for sharing compliance knowledge and expertise: the ADCO (Administrative Co-operation Working Group) ecodesign Group and the ADCO energy labelling Group. The description of the two groups, their roles and activities are taken from the EC Register of Expert Groups and Other Similar Entities.

ADCO ecodesign:

- *Name*⁷: Ecodesign Market Surveillance Administrative Cooperation (E02601) Active Group which operates on a permanent basis
- *Abbreviation*: Ecodesign ADCO
- *Policy Area*: Internal Market
- *Lead DG*: ENTR - Enterprise and Industry DG and ENER - Energy DG
- *Associated DG*: MARKT - Internal Market and Services DG
- *Type*: Informal, permanent
- *Scope*: Limited
- *Mission*: Harmonisation of different market surveillance practices across the EEA for products covered by Regulations implementing the Ecodesign Directive 2009/125/EC
- *Task*: Coordinates with Member States⁸, exchange of views
- *Active since*: 13 Apr 2011
- *Activity Report*: The last meeting of the group took place on 27/09/2011. The topic discussed was "supporting the implementation of the Directive by providing a platform for discussion of grey areas in existing regulations and allowing exchange of information on market surveillance activities." The next meeting is due to take place in the second semester of 2012.
- *Selection Procedure (members)*: A letter was sent to the Permanent Representations of the Member States to the EU, Attachés for Industry and Energy, and to the Delegations of the non-EU members of EEA asking them to designate the Market Surveillance Authorities to represent them in the Ecodesign ADCO group.
- *Internal Rules of Procedure*: Expert groups usually operate in an informal setting without any formal rules of procedures. This is the case for this group.
- *Other*: The Ecodesign-ADCO group is an obligation under Article 12 of the Ecodesign Directive 2009/125/EC. The Commission shall take appropriate measures in order to encourage and contribute to the cooperation on market surveillance between Member States. An ADCO group is in general considered an appropriate measure in Internal Market Legislations, and Member States have asked for the set up of such a group. The Chairmanship of the group rotates between the Member States, the European Commission is a member of the group.

⁷ <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=2601>

⁸ http://ec.europa.eu/enterprise/policies/sustainable-business/documents/eco-design/national-contacts/implementation/index_en.htm

The ADCO ecodesign group is attended by the 30 national enforcement authorities of the EU and European Economic Area. Enforcement authorities are using this forum to agree the enforcement of the regulations, to share best practice and to exchange intelligence on products, to share plans for product testing and to work towards a proposal for a joint testing programme which will make good use of limited resources. All of this helps align and strengthen market surveillance across the EU.

ADCO energy labelling:

- *Name:* Expert group on Energy Labelling Administrative Cooperation (E02647)
Group which operates on a permanent basis
- *Abbreviation:* Energy Labelling ADCO
- *Policy Area:* Energy
- *Lead DG:* ENER - Energy DG
- *Type:* Informal, Permanent
- *Scope:* Limited
- *Mission:* The Administrative Cooperation for Market Surveillance Group for the Energy Labelling Directive 2010/30/EU is a group for aiding market surveillance authorities to exchange experiences, co-operate in testing of products, publish test results and discuss any matter related to market surveillance practices for a better implementation of the Directive.
- *Task:* Coordinates with Member States, exchange of views
Composition: National administrations
- *Active since:* 05 July 2011
- *Activity Report:* Meeting of 22 November 2012
- *Selection Procedure (members):* The members of this group are the Member States. It is for the authority of each Member State to decide on who will represent them
- *Internal Rules of Procedure:* Rules of procedure
- *Number of Members:* 27 national enforcement authorities.

The ADCO labelling group is attended by the 27 national enforcement authorities of the EU and European Economic Area.

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7. en.lighten initiative: www.enlighten-initiative.org

Please, contact the Come On Labels organisers in case of your interest for more information about product energy compliance testing:

<http://www.come-on-labels.eu/about-the-project/contacts-eu>



Come on Labels project members – contacts

	Czech Republic – project coordinator	SEVEn , The Energy Efficiency Center www.svn.cz	
	Austria	Austrian Energy Agency www.energyagency.at	
	Belgium	Brussels Energy Agency www.curbain.be	
	Croatia	ELMA Kurtalj d.o.o www.elma.hr	
	Germany	Öko-Institut e.V. , Institute for Applied Ecology www.oeko.de	
	Great Britain	Severn Wye Energy Agency www.swea.co.uk	
	Greece	Center for Renewable Energy Sources and Saving www.cres.gr	
	Italy	ENEA – Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile www.enea.it	
	Latvia	Ekodoma, Ltd www.ekodoma.lv	
	Malta	Projects in Motion www.pim.com.mt	
	Poland	KAPE , Polish National Energy Conservation Agency www.kape.gov.pl	
	Portugal	QUERCUS – Associação Nacional de Conservação da Natureza www.ecocasa.pt	
	Spain	ESCAN, S.A. www.escansa.com	



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