



Deliverable 5.3: Guidelines for improvements



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SUMMARY

The opinions of all the stakeholders affected by the change of the energy labelling system, such as consumers, retailers, manufacturers, and public procurement officers, are fundamental to understand what went well and what went wrong in the definition and implementation phases of the new energy label for household appliances. Considering that the energy label rescaling is a process expected to take place periodically, to collect information regarding the barriers and challenges stakeholders had to face, as well as on innovation opportunities and best practices identified, is important to optimize future rescaling initiatives.

This document summarizes manufacturers' point of view in the form of guidelines/recommendations. These guidelines have been developed as a decision tool for policymakers; namely, BELT guidelines are intended to support policymakers to make more effective choices and to minimize errors during next rescaling initiatives.

This document is the final output of the activities performed in *Task 5.3 Guidelines for improvements and best practice exchanges*.



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Introduction

BELT project had the primary objective of smoothing the enter into force of the new energy labelling system informing and supporting all stakeholders and reducing to a minimum the errors along the entire value chain, from manufacturers to consumers.

However, BELT ambition is also to play a very active role in helping policymakers formulate the policies that will shape the future rescaling processes. BELT consortium in fact can leverage on the results and the learnings gathered after four years of project activities and on the cooperation established along the EEE value chain to create a strong partnership able to provide feedback and support in the setting of effective policy guidelines.

Working side by side with market actors has made clear to BELT partners that the rescaling process brought up a series of logistical and operative issues for manufacturers, distributors and for retailers. Additionally, BELT partners have made aware by market actors that several aspects of new energy labelling systems resulted confusing or difficult to apply in real industrial environment.

Barriers and challenges that manufacturers addressed to comply with new requirements, as well as innovation opportunities that manufacturers identified in the rescaled energy label, are the focus of these guidelines. In this document, particular attention has been devoted to the critical aspects faced during the practical implementation of the new energy labelling rules; manufacturers' suggestions and feedback contributed to the development of a document containing suggestion regarding, for example, how to reduce compliance costs, maximize legal certainty and minimize errors to boost innovation.

Considering that the label rescaling is a process expected to take place periodically, these guidelines can be intended as a decision tool for policymakers in the future. On one hand, the guidelines will be used to support the sharing of best practice among manufacturers, creating a knowledge base for future work, for example, on promoting the energy label and on implementing successful communication strategies addressing consumers; on the other hand, they will integrate other recommendations that have been elaborated in other BELT work packages, such as WP4 (*Deliverable 4.3 Report summarizing the findings and the best practices in the retailer worlds* – focused on retailers' point of view) and WP7 (*Deliverable 7.2 Report on policy recommendations* – focused on consumers' point of view).



Approach

To provide effective policy recommendations, BELT followed a two-pronged approach. In the first reactive approach, BELT partners demanded for and received inputs from market actors during several fora, including workshops (as the Circulab ones and the training workshops), concertation meetings and interviews. In the second proactive approach, the partners acknowledge that much of the work already performed in the project may essentially generated knowledge that can contribute to the elaboration of policy recommendations.

The Frequently Asked Questions (FAQ) document, prepared and updated during the entire duration of the project, also has been considered as a useful source of information to identify the aspects of the new energy labelling system that resulted less easily understandable or applicable.

Additionally, these guidelines have been integrated with inputs from a literature review study: the findings reported on scientific papers and on deliverable made available by other European projects (e.g., ANTICSS, MarketWatch) studying opportunities, limitations, and effects of the new and of the previous energy labelling systems have been taken into account.

All these contributions have been collected and phrased as policy recommendations and lesson learnt, as reported in the following sections of this deliverable.

Stakeholder mapping

As mentioned, BELT partners consulted several stakeholders to elaborate this document.

Experts' opinions have been collected through the dialogue platform established in *Task 5.1 Dialogue platform for manufacturers* and enlarged in *Task 5.2. Manufacturers' awareness campaign*, within which communication and engagement campaigns have been organized.

The network has come to include relevant manufacturers' association such as APPLiA - European manufacturers associations and APPLiA Italia; retailers' association such as AIREs; and household appliances manufacturers selected within ERION members network, consisting of more than 2,400 Producers of Electric and Electronic Equipment and Batteries and Accumulators operating in Italy (as reported in *Deliverable 5.2. Report on the performed campaigns*, a Microsoft Form has been prepared and shared via email to ERION members precisely for collect manufacturers' questions and doubts). The mentioned stakeholders have been continuously consulted along the entire duration of the project. Moreover, the points of view of other relevant actors, such as Eurocommerce (operating at European level) and Federdistribuzione (operating at Italian level), Lighting Europe and Digital Europe (operating at European level), Assarredo-Federlegnoarredo, ASSIL, Anitec-Assinform (operating at Italian level), have been considered to elaborate project recommendations, also drawing from industry position papers and public statements regarding the latest as well as the previous rescaling processes.

The consulted stakeholders have been summarized in the table below (*Table 1*). They have been organized according to the different phases of the household appliance value chain (*production – distribution – use*). The table also indicates the other BELT project deliverables consulted to elaborate the recommendations.

Table 1. Stakeholder mapping

PRODUCTION	Producers	Erion members	2,400 Producers of Electric and Electronic Equipment and Batteries
	Producers' associations	APPLiA - European manufacturers associations	It has 21 direct members (Arcelik, Ariston Thermo Group, Groupe Atlantic, BSH, Candy, Daikin, DeLonghi, Dyson, Electrolux, Gorenje, LG Electronics, Liebherr, Miele, Panasonic, Philips, Samsung, Groupe SEB, Smeg, Vestel, Vorwerk, Whirlpool) and 27 national associations of home appliances products such as: large appliances, as refrigerators, freezers, ovens, dishwashers, washing machines and dryers; small appliances, as vacuum cleaners, irons, toasters, and toothbrushes; heating, ventilation, and air conditioning appliances, as air conditioners, heat pumps and local space heaters.
		APPLiA Italia	It brings together over 100 companies operating in Italy in the sector of appliances and professional equipment for catering and hospitality.
	BELT Related deliverables	<i>D5.1 Plan for a Transparent consultation of manufacturers (SOFIES)</i> <i>D5.2 Report on the performed campaigns (ERION)</i>	
DISTRIBUTION	Retailers' associations	AIRES - Italian Association of Specialized Appliances Retailers	It brings together the main companies and specialized distribution groups of household appliances and consumer electronics, AIRES members are Euronics (Euronics, Euronics Point, Comet and Sme brands), Expert (Expert and Grancasa brands), GRE (Trony and Sinergy brands), MediaWorld and Unieuro (Unieuro and Monclick brands). The mentioned members have around 26,000 total estimated employees, over 180 companies present throughout the country and about 2,600 physical and online stores.
	BELT Related deliverables	<i>D4.1 Detailed training plan for retailers (SONAE)</i> <i>D4.3 Report on the panel of retailers engaged in the project (DECO PROTESTE)</i> <i>D4.3 Report summarising the findings and the best practices in the retailer worlds (SONAE)</i>	
USE	BELT Related deliverables	<i>D7.1 Report on policy recommendations (BEUC)</i>	

Recommendations

R1. Avoid transition periods

Background

Framework Regulation 2017/1369 has provided that, during specific so-called *transition periods*, the supplier shall provide both the existing and the rescaled labels and the two product information sheets to the dealer.

BELT recommendation

This requirement resulted to cause operative and logistic challenges. More in details, for manufacturers to provide two labels means that also double testing would be needed. Double testing has a financial impact and is also very time consuming.

Therefore, **it is recommended to not foreseen transition periods during which the two labels (old and new ones) are provided in the product packaging.** The preparation of two labels requires an organizational and economic effort by manufacturers; while, finding the two labels in the packaging of a product can generate confusion among consumers. Moreover, providing the two labels in advance to retailers facilitate them only to a certain extent considering that they had the possibility to replace the old label with the new one starting from a specific date, 1st March 2021, when they were receiving products with containing double labels from 1st November 2020.

R2. Avoid cohabitation of the new and old labels on the market

Background

Framework Regulation 2017/1369 has provided for *Derogations* to the timing (6 months delay) of the appearance of the new energy label in shops. This occurs, for example, for specific products, when a dealer is unable to obtain a rescaled label for units already in its stock because the supplier has ceased its activities or when the supplier is exempt to supply a rescaled label for units placed on the market before a certain date.

Moreover, it should be highlighted the fact that the energy label has been rescaled only for 5 products categories, while all the other energy related products are still accompanied with the old label (new *rescaling waves* are foreseen in the next years). The temporal asymmetry among the rescaling waves brings to the fact that top of the range of refrigerators classified in energy class *E* coexist on the market with mid-level vacuum cleaners still in class *A+*.

Additionally, also amongst products involved in this first wave of rescaling, there are differences, considering that the new energy label for lighting sources have been introduced 6 months later than the one for washing machines, washer-driers, displays, refrigerators, and dishwashers. Also, *Derogations* applying to lighting sources mentioned different timing (9 months delay to relabel or to sell products in stock).

BELT recommendation

The requirements reported above determine the cohabitation of the new and old label on the market.



The negative effect of this cohabitation is stressed by the consulted market actors, and it is also proved by research studies. According to the results reported by Faure et al.¹, the rescaled label alone significantly increases valuation of top-rated products compared to showing the previous *A+++ to D* label alone; however, when the previous *A+++ to D* and the rescaled *A to G* schemes are shown simultaneously, no benefits of introducing the rescaled label are found.

Market actors confirmed that for consumers is extremely difficult to understand why products within the same category have different labels and why some product categories are involved in this rescaling process and others don't (e.g., *washer-dryers Vs tumble-dryers*).

Retailers highlighted also aesthetical issues: the coexistence of different labels (characterized for example by different sizes and disposition of the content) can in fact have an impact on the pleasantness of the products exposition space, where products with different labels can result as less organized.

Therefore, **it is recommended that policymakers strive to enforce the application of the rescaled labelling scheme as quickly as possible, to involve in the rescaling process as much products as possible all together and to shorten transitory periods during which both labels are shown simultaneously.** Nevertheless, these aspects should be balanced with the need of proper management of products in stock. Thus, an ideal time frame should be identified to avoid that there is not enough time to sell products in stock and to avoid, consequently, waste generation (additionally specific conditions should be introduced to clarify how to manage *returned products* that would be discontinued in the market, and that only displayed the old label; similarly additional clarification should be provided regarding how to deal with products in exhibition contexts, such as showrooms or kitchen studios, at would be discontinued in the market, and that only displayed the old label after the rescaling process).

R3. Introduce a conversion methodology to compare information provided on the old and on new label

Background

There is not a direct correspondence between the energy classes and values given in the new label and those given in the old label. This is because the formulas, parameters and value ranges that allow the determination of the energy class of a product according to the new classification are different from those that were used to calculate the energy class of the product according to the rules associated with the old label.

¹ Faure C., Guetlein M., C., Schleich J., *Effects of rescaling the EU energy label on household preferences for top-rated appliances*, Energy Policy, 156, 2021



BELT recommendation

It is hard for consumers to understand why a product previously classified as *A+* is now in class *C* or lower. Consequently, it is extremely difficult for manufacturers and retailers to convince them that the performance of the product did not deteriorate and to direct their choices towards most efficient products.

Therefore, **it is recommended providing a simplified conversion methodology to guide consumers at least during the first period of new energy label implementation**. This would support, for example, retailers in convincing consumers that the performance of the products is not decreased. This would also avoid that each producer/retailer proposes, wrongly, a different conversion approach.

Additionally, **it could be beneficial allowing only classes that are occupied by available models to be displayed on the label when the label is introduced on the market**. This should avoid consumers keep looking for products in higher classes when they are not available on the market yet.

Best practice

To facilitate retailers explaining to consumers which energy classes are currently available on the market per each product, BELT developed a dedicated flyer². The flyer reports a table that describes the market situation in November 2021 in terms of energy classes already available on the market, classes not yet available on the market and energy classes for which there is still limited availability. The flyer has been made available for retailers, digitally and in printed form.

R4. Reconsider the time gap between legislation development and its entering into force

Background

Framework Regulation 2017/1369 has been issued on 4th July 2017, while Delegated Regulations for each product category involved in the energy label change have been issued on 11th March 2019 and fully entered into force on 1st March 2020 or 1st September 2020 (in the case of lighting sources).

BELT recommendation

According to the explanations provided by the European Commission³, the intention of EU legislators was to rescale the label leaving upper classes empty to allow room for progress in future-developed appliances. Namely, the main principle was that the *A* category would

² https://www.newenergylabel.eu/sites/default/files/pdf-blocco-materiale/AF_Belt_monofolhaA4_EN.pdf

³ https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/about_en



be empty at first, and *B* and *C* categories scarcely populated, to pave way for new, more energy efficient products to be invented and developed.

However, at the time of the entering into force of the new energy labelling system it was already possible to find on the market products labelled with the *A* class. This is the case, for example, of the Samsung washing machines *AI control* model⁴.

Therefore, **it is recommended reconsidering the time gap between legislation development and its entering into force.** This would ensure the effectiveness of the measures reported in the regulation, that would result in fact closer to the market and technological development conditions. Technological innovation also determined the appearance on the market of new product typologies that were not available yet when the legislation was issued. As a results, there are currently on the market product typologies that are not explicitly mentioned in the Delegated Regulations and for which it is difficult to understand if they are involved in the energy label rescaling process or not. For example, the Delegate Regulation 2019/2013 on the energy labelling of electronic displays, mentions *digital interactive whiteboards* excluding them from the energy labelling requirements; however, the Regulation does not mention *interactive monitor/displays* that currently represent a widely used solution⁵. Specifically, in the article 2 of the Regulation is possible to find the definition of *digital interactive whiteboards* and the definition of *monitor/display*, but it is not possible to find the definition of *interactive monitor* or *interactive display*.

On this topic, another important aspect should be considered in parallel: providing an appropriate period between the entry into force of the rules and their application is vital for manufacturers. In fact, implementing the new requirements (e.g., changes to the product design – especially when the testing method has been changed too -, software adaptation to the new labelling characteristics including the QR code) into the supply chain, but also to allow sufficient time also to exhaust stock of products that were placed on the market with the old labelling scheme. Besides, a period between the entry into force of the rules and their application is important to ensure that standardisation bodies amend the measurement procedures. Consider that standardisation mandates are published after a Regulation enters into force, the time remaining for the development of a new test method before a Regulation becomes applicable, is short.

⁴ https://eprel.ec.europa.eu/information-sheet/Fiche_262812_EN.pdf

⁵ <https://www.benq.com/en-us/business/resource/trends/iwb-vs-ifp-is-it-time-to-change.html>



R5. Support the alignment of national legislations to the European Framework Regulation requirements

Background

In each Member State, national legislations are in force and regulate different aspects of energy related products life cycle. There is the risk that these legislations overlap or enter into conflict with Framework Regulation 2017/1369, reducing its expected benefits.

BELT recommendation

As an example, the Italian case is reported. Italian income tax legislation has allowed a tax credit as a deduction from the taxable income for energy efficient expenses incurred in maintaining, restoring, and improving Italian properties. This tax credit also covers the purchase of furniture and white goods (through the so-called *Bonus mobili ed elettrodomestici – Bonus for furniture and household appliances*)⁶. The tax credit is subject to detailed conditions and comes with restrictions and limitations. Until the January 2022, to have access to the tax credit it was necessary to comply with a specific limitation regarding the energy class of the product. According to the law any house furniture qualifies for the relief, whilst appliances must be eco-friendly with class A+. This limitation regarding the energy efficiency performance of the household appliance has been kept unchanged also after the entering into force of the new energy labelling system.

The lack of a conversion methodology to compare information provided in the old and in the new label (as claimed in the previous recommendation – R3) and the delay in updating the legislation regarding the tax credit rules (new indication have been provided only in January 2022) determined that consumers were extremely confused and reluctant to buy appliances displaying new label (thus without A+ classes). Consumers, in facts, feared they were not entitled to claim the tax credit choosing an equipment displaying an energy class lower than A+ according to the new labelling system. Consequently, several consumers preferred to buy less efficient equipment displaying A+ classes to be sure to have access to the tax benefit.

Since January 2022, new requirements have been published to claim the tax credits. In details, it has been specified that it is possible to “*the subsidy was extended by the budget law 2022 (law n.234 / 2021, article 1, paragraph 37) for the expenses incurred in the years 2022, 2023 and 2024 to purchase furniture and large appliances of class not lower than class A for ovens, to class E for washing machines, washer-dryers, and dishwashers, to class F for refrigerators and freezers*”⁷.

⁶ <https://www.italy-uk-law.com/italian-news/bonus-fiscali-cash-back-on-italian-properties-restoration-and-energy-efficiency-expenses/>

⁷ https://www.agenziaentrate.gov.it/portale/documents/20143/233439/Guida_Bonus_Mobili_012021.pdf/08565088-428b-ba64-1ce9-1823d86cbef4



Therefore, to avoid similar confusions, **it is recommended to promptly support the alignment of national legislations to the European Framework Regulation requirements.**

R6. Provide additional communication materials to consumers

Background

The energy label has been showed for the first time in 1995 and, since then, has become a very effective and powerful tool for guiding consumers' choices. Consumer surveys show that about 85% of European citizens look at energy efficiency labels when they purchase products⁸. Thus, consumers are familiar with energy label objectives, structure, and content. In this context, on one hand it should be considered that consumers have been using the previous version of the energy label for almost 10 years, from 2011 to 2020; on the other hand, it should be considered that the new labelling systems is applicable to products that have on average a long life expectancy (e.g., the average life expectancy of a new washing machine is about 11 years) and consequently, consumers have the need of reading and comparing different energy labels of different products not so often.

BELT recommendation

According to the feedback provided by market actors, the introduction of the news energy labelling systems raised mainly the following doubts among consumers:

- *Why has a new energy label been introduced?*
- *Is there a direct correspondence between the classes and the values reported in the new one label and those shown in the old one?*
- *What information is displayed by scanning the QR-code?*
- *Purchasing a product online, will I receive the equipment with the old label or with the new one? Will I receive the products with two labels?*
- *How is the energy efficiency of an equipment measured?*
- *Why in the shops there are products with old labels and products with the new one within the same products category?*
- *Why in the shops there are some products with old labels and products with the new one?*
- *Why are there products already in class A?*
- *Who determines the energy class of a products?*

Therefore, to facilitate the entering into force of the new labelling system, **it is recommended to provide additional communication materials** (preferably available in Member States national languages) **to consumers and to update these materials according to the specific doubts that emerge after the entering into force of a new system.** Additionally, it would be beneficial to perform European Commission official communication campaigns through different channels, using, besides the dedicated web

⁸ https://ec.europa.eu/commission/presscorner/detail/en/IP_17_691



pages⁹, also social media, television, radio. Multi-layered communication in joint combination with the introduction of ad-hoc customer support tools should be at the core of transitions alike.

Moreover, it recommended to provide additional information concerning crucial aspects of the new energy labelling system, triggering consumers' interest. For instance, it could be beneficial to stress the fact that the current energy classes are determined taking into account operative conditions of the appliances closer to consumption habits, measuring the appliance performance in a more realistic environment.

Best practices

Certainly, the funding of the research projects BELT and *Label2020* can be indicated as a best practice in terms of providing additional support to consumers. The communication activities towards consumers performed by the BELT project consortium are reported in project deliverables *D3.2 Report on the consumer outreach* and *D7.1 Report on main dissemination activities*.

In this regards, other bests practices have been identified. For example:

- APPLiA developed a dedicated website¹⁰ dealing with the entering into force of the new energy labelling system. APPLiA website contains also video¹¹ dedicated to the energy label topic, FAQ document, interactive contents and a chat box to provide additional support. The APPLiA platform was translated in 16 European languages and registered over 28K visits since its release. The direct chat has been a highly used tool of the website, for visitors to pose questions that were answered by the APPLiA Secretariat. According to the APPLiA feedback, providing a dedicated space for consumers to put forward their doubts and concerns, proved very successful in tackling the most critical points to the transition. In addition, APPLiA released a short cartoon on the label shift, that was published on all digital channels and translated in 16 languages, collecting over 3,000 views. Moreover, the APPLiA website content has been disseminated also through APPLiA social media channels¹². Moreover, local associations operating within the APPLiA Europe umbrella have been involved in this dissemination effort, multiplying its impact. In many EU countries, National Associations made use of the cartoon developed by the Association and managed their own campaigns on national TV channels, social media mainly;

⁹ https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/about_en

¹⁰ <https://www.theenergylabel.eu/>

¹¹ <https://www.youtube.com/watch?v=GpOd4ZGCFbM>

¹² An example of a post regarding the new energy label available on the APPLiA LinkedIn page: https://www.linkedin.com/posts/applia-europe_eu-energylabel-activity-6774975487543410688-4TPW



- similarly, retailers as Mediaworld¹³ and Unieuro¹⁴ developed a webpage dedicated to the explanation of the new energy label;
- also, producers developed dedicated webpages and videos. This is the case, for example, of Samsung¹⁵, Candy¹⁶ and LG¹⁷;
- ENEA, the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (specifically, the Department of Energy Efficiency – DUEE Dipartimento di Efficienza Energetica), prepared a guideline¹⁸ describing the news related to the new energy labelling system;
- retailers, as described by the BELT partner SONAE in deliverable *D4.1 Detailed training plan for retailers*, developed specific training campaign for their employees (especially for sales staff) aiming to prepare them to answer consumers' questions as accurately as possible.

R7. Identify a technical reference point that can support market actors at national level

Background

The entering into force of the new energy labelling system is a complex process that involves different actors (such as manufacturers and retailers) with different responsibilities, very long value chains (e.g., household appliances can be produced outside Europe and then put on the European Union market), several products categories (it should be taken into account that, within the same product category, products can have different technical characteristics as well as different applications); moreover, it is a process that provides exemptions and derogations for specific cases.

BELT recommendation

As reported in deliverable *D5.2 Report on the performed campaigns*, BELT provided support to market actors to understand new energy labelling system requirements and to face operative challenges for correct implementation. Namely, BELT organized webinars and training activities; elaborated training materials, guidelines for retailers and manufacturers, and FAQ documents; BELT established a *support service* to help

¹³ <https://www.mediaworld.it/etichette-energetiche> – available in Italian

¹⁴ <https://www.unieuro.it/online/nuova-energy-label#:~:text=L'Unione%20Europea%20ha%20rimodulato,dal%201%C2%B0%20marzo%202021> – available in Italian

¹⁵ <https://www.samsung.com/it/home-appliances/learn/energy-efficiency-rating-label-changes/> - available in several languages

¹⁶ https://www.candy-home.com/it_IT/nuove-etichette-energetiche/#:~:text=Dal%201%20marzo%202021%20sar%C3%A0,lavastoviglie%20e%20apparecchi%20di%20raffreddamento.&text=Le%20classi%20%22Pi%C3%B9%22%2C%20come,energetico%20da%20A%20a%20G

¹⁷ <https://www.lg.com/it/elettrodomestici/nuova-etichetta-energetica> - available in Italian

¹⁸ <https://www.ufficienzaenergetica.enea.it/pubblicazioni/l-etichetta-energetica-2021.html> - available in Italian



manufacturers addressing specific issues (this service has been used mainly by small companies, retailers and suppliers, that probably are not member of any association and consequently are not reached by other communication and information campaigns).

The campaigns performed by BELT were extremely effective to inform market actors about the introduction of the new systems and to make them aware of the main aspects of the new regulation. However, it was not always possible for BELT partners to provide full support on highly technical and complex questions raised by manufacturers (e.g., questions related to very particular products not explicitly mentioned in the regulations, as highlighted in previous recommendation - R4; questions related to the procedures to be followed to test specific performance parameters; or questions related to the data and documents to be uploaded on the European Product Registry for Energy Labelling – EPREL-database).

Therefore, **it is recommended to identify a technical reference point that can support market actors** (especially small producers and small retailers that are not members of any association) **at national level on more technical issues**. The support provided by this technical reference can significantly reduce market actors' errors. This role can be played, for example, by the market surveillance authority operating in each Member State (e.g., ENEA in Italy) or by national competent Ministry. It is suggested as well that the entity legally responsible for law enforcement and this *technical reference* should be the same entity or, at least, that the entity legally responsible for law enforcement and the *technical reference* should strongly cooperate. Deciding otherwise will contribute to less control and increase uncertainty in law enforcement. Moreover, it is important to guarantee some harmonisation at EU level to avoid diverging interpretation as much as possible.

Best practice

The manufacturers associations Lighting Europe, the voice of the European lighting industry, elaborated very detailed guidelines on Ecodesign and Energy Labelling rules for light sources¹⁹ and on how to apply the EPREL obligations to light sources²⁰.

These guidelines are intended to assist the market in understanding new obligations.

Moreover, the guidelines have been continuously updated to include comments received by European Commission as well as new understanding of the regulation and changes introduced by Amendments.

¹⁹ <https://www.lightingeurope.org/ecodesign-guidelines>

²⁰ <https://www.lightingeurope.org/eprel-database>



R8. Provide additional information regarding sanctions to market actors

Background

Framework Regulations 2017/1369 and Delegated Regulation do not indicate which are the sanctions that are applicable if market actors do not comply with new energy labelling system requirements.

BELT recommendation

It is currently difficult to gather information regarding the sanctions that are applicable when market actors do not comply with energy labelling regulation. However, giving greater emphasis to the risks that market actors take if they do not correctly implement energy label requirements, can incentivize manufacturers and retailers to be more compliant with the regulation. Actually, market actors are extremely interesting in receiving more information regarding sanctions.

Therefore, **it is recommended to provide additional information regarding sanctions to market actors.**

R9. Stress the importance of other products characteristics that should be considered together with the energy related ones

Background

The new energy label provides information not only regarding the energy performance of a certain product, but also about several other parameters, such as water consumption, acoustic noise generated, capacity of specific programme, or duration of a cycle.

BELT recommendation

Energy efficiency is an extremely important aspect to assess during the evaluation of the sustainability of household appliances. However, sustainable choices should be based on several considerations.

For example, consumers must be educated in using household appliances in a proper way to reduce their environmental impact. In this regard, it has been proved for instance that in the case of dishwasher a consumer can easily increase energy usage by 50% without being aware of doing so, when goods are pre-treated, appliances incorrectly loaded, or inappropriate programs selected²¹. This is true also for the other product categories involved in the energy label rescaling. Manufacturers play an important role by informing and educating consumers to act in more environmentally friendly ways.

²¹ Brunzell L., Renström R., Recommendations for revising the energy label system for dishwashers: supporting sustainable development and usage through the interaction of energy labels, technical improvements and consumer behaviour, *Energy Efficiency*, 13, 145-155, 2020



Moreover, consumers should be educated also in selecting the products that are suitable for their specific needs, considering not only the energy efficiency class of the equipment, but also characteristics such as energy consumption, size, price, durability, and other functional and quality parameters.

For example, the energy consumption indication can help consumers realising that, despite the lower energy classification, a smaller appliance would be preferable if its capacity/size better meets their needs. It can occur, in fact, that larger products are intrinsically more efficient due to several reasons. In certain product categories, larger products can fall within the highest energy efficiency classes even though they consume more energy in absolute terms compared to smaller appliances which fall within lower classes of the energy efficiency scale but nonetheless consume less energy in absolute terms²².

Regarding the price, for example, it can occur that highly efficient appliances carry a prize premium. Often, though, the elevated purchase costs are compensated by the energy savings during the lifetime of the appliance, in comparison to a less efficient product. Communicating the real lifetime running cost of an appliance may therefore reduce consumer reluctance in the face of higher purchasing costs.

Therefore, **it is recommended to market actors to stress the importance of other products characteristics that should be considered together with the energy related ones.**

According to the feedback received, retailers actually take the opportunity of supporting consumers on understanding the new energy labelling system, to provide them additional explanation regarding the products and to guide consumer decisions towards more sustainable choices.

Best practices

In order to communicate the real lifetime running cost of an appliance in a simple and effective way to consumer, the *Label2020* project developed a dedicated web app²³. The app makes it easier to compare different appliances and can also better assess the running costs and estimated total costs. To improve the accuracy of the estimation for the operating costs, it is also possible to adjust the assumptions for frequency of use as well as for useful life according to customer expectations. Entering the purchase price, an estimate for the total costs over the useful life of the appliance is received. In this way, it is possible to check which device is the most favorable for the specific need of the consumer overall.

Similarly, the BELT calculator²⁴ allows the estimation of the environmental (in terms of CO₂ emissions) and economic (in terms of annual electricity cost) impacts related to the selection of specific equipment, taking into account not only its energy efficiency class, but

²² <https://www.beuc.eu/publications/simplifying-eu-energy-label-restoring-successful-and-well-understood-closed-g-scheme>

²³ <https://tool.label2020.eu/>

²⁴ <https://www.belt-project.eu/belt>



also the typology of the product (for example considering product capacity) and the consumption habits (considering the family status of the user and, in the case of a dishwasher and of a washing machine, the number of cycles running per week).

R10. Consider the possibility of designing a different label layout

Background

The layout of the new energy label is very similar to the layout of the previous label. The important elements of novelty are the introduction of the QR-code, a more visible indication of the energy consumption in the middle section of the label, the use of some new pictograms. However, the energy label revision ensures coherence and continuity with the previous energy label layout. The energy efficiency scale, which is the fundamental part of the label, except for the elimination of the “+” classes, looks the same: it contains the A-G scale and the green-red color coding.

BELT recommendation

On one hand, it is true that the EU energy label is very well known among European consumers and as such is like a high-profile brand, that has been built up over many years and has considerable recognition value in its current form²⁵. On the other hand, as mentioned in previous recommendation (R6), it should be considered that the new labelling systems is applicable to products that have a long average life expectancy and consequently, consumers experience the need of using the label not so often.

Therefore, **it is recommended to also consider the possibility of designing a different label layout for future rescaling**. The adoption of completely new design concept could have a positive impact considering that actually there is no correspondence between the energy classes and values given in the new label and those given in the old label and consequently, the use of the same energy efficiency scale can generate confusion. Additionally, it is suggested to give greater importance to the information regarding annual energy consumption, expressed in kWh: this is an important data that often takes a back seat in the energy label, compared to the emotional impact of the red-to-green colors of the scale.

At the same time, it is important to consider that the readability of the label should not be compromised with an accumulation of icons that would make the purpose of the energy label null.

²⁵ <http://www.energylabelevaluation.eu/tmce/Final technical report-Evaluation ELD ED June 2014.pdf>



R11. Incentivize the replacement of old appliance with low efficiency simultaneously with the period of energy label change

Background

Since its first appearance in 1995, the EU energy label has been a key driver for helping consumers choose products which are more energy efficient and to encourage manufacturers to drive innovation by using more energy efficient technologies. However, the EU energy label alone is not sufficient to persuade households to replace inefficient appliances and to ensure the market penetration of highly efficient appliances.

BELT recommendation

As already pointed out by the *Come On Labels* project²⁶, due to various financial, motivational and informational barriers, additional tools are needed to encourage consumers to purchase highly efficient products.

Therefore, **it is recommended to incentivize the replacement of old appliance with low efficiency simultaneously with the period of energy label change**. The *Come On Labels* project summarized some incentive schemes adopted by Member States in previous rescaling processes that combine informational measures with financial or material incentives and that represent an enabling factors for the replacement of old products with more efficient ones. Some examples are competitions, prizes, rebate, direct payment, free appliance, micro loans, bonus/malus systems, *ecopoint* systems (where the purchaser of an efficient appliance receives *points* that can be used in exchange for other environmentally friendly products).

The Energy Labelling Framework Regulation mentions the possibility for member States to implement such schemes in accordance with competition rules.

Best practice

In Italy, APPLiA Italia and AIREs proposed the introduction of the so-call *Eco-bonus Eldom*, inspired to the measure, named *Bonus TV*, already operational. The *Bonus TV* consists of a 20% discount on the purchase of a new TV on a maximum amount of €100; it is possible to access to the bonus disposing a TV at the time of purchasing a new one. The objective of the bonus is to encourage the purchase of equipment compatible with the new DVB-T2 digital terrestrial transmission standard - HEVC MAIN 10.

Similarly, the proposed *Eco-bonus* model provides for the establishment of a subsidy for the purchase of household appliances (refrigerators, freezers, washing machines and dishwashers) involved in the energy labelling changes and belonging to the highest energy

²⁶ Come On Labels, 2013 c, New Product Replacement Schemes in the Come On Labels Countries, Deliverable 6.15, main author Corinna Fischer, March 2013, <http://www.comeon-labels.eu/replacements/description-of-activities>



classes according to the new scale. It would be possible to access to the bonus scrapping a similar household appliance with more than 10 years of life.

In detail, the proposal is that the bonus would consist of a 20% discount on the purchase price, up to a maximum amount of €100 for washing machines and washer-dryers in class C or higher, dishwashers in class D or higher and refrigerators and freezers in class E or higher.

Thus, the proposed measure is an example of a solution that stimulates *early replacement*, meaning that consumer exchanges the old appliance earlier than he/she would have done otherwise. Better replacement (that occurs when a consumer who already wishes to buy a new appliance chooses a more efficient one than he would have without the scheme) often has lower environmental impact²⁷. However, early replacement is beneficial for very old products, such as refrigerators older than 10 years.

R12. Develop a digital product passport that is comprehensive and that also contains energy related information

Background

The Sustainable Products Initiative foreseen in the new Circular Economy Action Plan should establish a *Digital Product Passport* (DPP) that gathers data on a product along its entire value chain. The objective of the DPP is to support sustainable production, to enable the transition to circular economy, to provide new business opportunities to economic actors, to support consumers in making sustainable choices and to allow authorities to verify compliance with legal obligations²⁸.

BELT recommendation

The DPP will allow citizens to have access to relevant and verified information related to the characteristics of the products they own or are considering to buy/rent (e.g., using apps able to read the identifier of the product). Moreover, the use of a DPP will also benefit market surveillance authorities and customs authorities, by making available information they would need to carry out their tasks. It is evident that in the future the DPP will be an instrument that will partially overlap with the energy label tool scope. Namely, the DPP will be able to contain all the information now reported in the energy label, available through the QR-code reported on the label and registered in EPREL.

Therefore, **it is recommended that the development of the DPP will consider the need of including energy related information.** Thus, avoiding that market actors will perform

²⁷ van den Berge R., Magnier L., Mugge R., Too good to go? Consumers' replacement behaviour and potential strategies for stimulating product retention, *Current Opinion in Psychology*, Volume 39, 66-71, 2021

²⁸ https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12567-Sustainable-products-initiative_en



double registration activities (e.g., providing data for the elaboration of the DPP as well as providing data to the EPREL database) and providing comprehensive information to consumer to perform more sustainable purchasing choices.

Discussions on the DPP have not started yet so it is difficult to anticipate the outcome of it and how to practically link it to the energy label. It would be nevertheless important to understand the synergies and opportunities of connecting the two instruments.

R13. Optimize EPREL database functioning and provide additional guidance to facilitate information upload

Background

As of 1 January 2019, suppliers need to register their appliances, which require an energy label, in EPREL, before selling them on the European market. Due to the entering into force of the Framework Regulation 2017/1369, some products had to be re-registered according to the new requirements, and some other products had to be registered for the first time.

BELT recommendation

At the time of the entering into force of the producers' obligations referring to the EPREL database, the database was not fully operative. For example, at that time the interface for suppliers was available only in English, the public interface was not available, the QR-code displayed on the label was not working and the section dedicated to lighting sources was not active (it has been activated in the second quarter of 2021). Specifically, regarding lighting sources initially it was only possible to proceed to a first registration of products by inserting the main data. Some functionalities, such as the label generation and its technical sheet, have been implemented later.

Moreover, it was not easy for suppliers to understand which kind of documents should be uploaded in the *Technical Documentation* section. In fact, whereas the content details of the public part of EPREL are clearly defined in the so-called *EPREL exchange model*, the technical documentation (for the compliance part) is only generically described in the Framework Regulation 2017/1369. Thus, the details of the technical documentation depend very much on the product group, and thus need the consideration of the product specific delegated acts. The mentioned EPREL exchange model only accepts PDF files that have to cover *Article 12.5 (a) to (f)* but does not make any statement on the content of these files.²⁹

Therefore, **it is recommended to optimize EPREL database functioning and to provide additional guidance to facilitate information upload.** The products registration was particularly difficult for small producers, with very limited IT skills.

²⁹ <https://aplia-europe.eu/initiatives/eprel-compliance-templates>



The *Wiki EPREL*³⁰ space is a very useful tool to understand more about EPREL requirements; however, its content (such as the guidelines, the Q&A sections, the forum) is available only in English and the *Wiki EPREL* itself is not a well-known instrument.

Similarly, it would be very beneficial to have official guidelines to be consulted and to be used as reference to solve doubts related to the population of the database as well as to describe each step of the registration/verification phase. However, such kind of guidelines³¹ have been published on the European Commission website only in December 2021 and they are available only in English.

It is suggested as well to develop a system for monitoring the use of the EPREL database. It would be interesting in fact to determine, for example, how many consumers scan the QR-code introduced on the label and if this innovation had an effective impact.

Best practices

APPLiA members have been developing so-called *compliance templates* to help suppliers fulfil the requirements reported in the *Articles 4* and *12* as well as *Annex I* of the Framework Regulation 2017/1369 which create obligations for suppliers to provide some information into the compliance part of the product database for the models they place on the market.

For each product group that is covered by the EPREL database, APPLiA company experts have made a detailed analysis of the specific requirements in the delegated act of the respective products (according to the Annex on *Technical Documentation* as well as the *Annexes* for measurement and/or calculation). From this, the information that would be required to fulfil the above-mentioned legal obligations was deduced. The templates are publicly available on the APPLiA website³². There is one template for each different product to be registered on the database. Templates can be used by APPLiA member companies and any other supplier. From a practical standpoint, the templates have been developed in Excel format. Once filled out, they could be converted as PDF and then uploaded into EPREL.

R14. Facilitate cooperation between retailers and manufacturers

Background

As already mentioned in a previous recommendation (*R7*), the entering into force of the new energy labelling system is a complex process that involves different actors, primarily manufacturers and retailers, that have different responsibilities, and are part very long value chains.

³⁰ <https://webgate.ec.europa.eu/fpfis/wikis/display/EPREL>

³¹ https://ec.europa.eu/info/sites/default/files/energy_climate_change_environment/suppliers_verification_guide_v1.04_0.pdf

³² <https://applia-europe.eu/initiatives/eprel-compliance-templates>



BELT recommendation

To reduce the errors and the delay in the implementation of the new energy labelling system requirements, it is very important that a dialogue channel between producers and distributors is established. The dialogue between producers and distributor would allow them to be aligned regarding their respective needs and obligations.

Therefore, **it is recommended to facilitate communication flows from manufacturers to retailers and vice versa and to boost cooperation among market actors.** This suggestion is strongly supported by retailers, as it possible to read in deliverable *D4.3 Report summarising the findings and the best practices in the retailer worlds.*

Best practices

ERION instituted a Task Force consisting of some APPLiA Italia members and AIREs with the aim of ensuring dialogue and collaboration among manufacturers and between manufacturers and retailers. The Task Force was especially active in preparation of the transition period of the implementation of the new energy labelling system. More details regarding the activities performed by BELT to facilitate the cooperation between manufacturers and retailers are reported in deliverable *D5.2. Report on the performed campaigns.*

R15 Provide additional explanations to market actors

Background

As described in *Deliverable 5.2. Report on the performed campaigns*, starting from the doubts received from market actors, BELT elaborated a Frequently Asked Questions (FAQ) document³³. This document is a collection of questions received by market actors and of the answers elaborated by BELT partners, on the issues related to the implementation of the new energy label. Analysing the content of the FAQ document is possible to determine which are the aspects of the new energy labelling regulation that resulted less clear to market actors.

Recommendation

Consulting the FAQ document, for example, it is evident that market actors experienced difficulties in understanding if certain products were covered by the new regulation or not. This is especially the case for the *lighting sources* category within which there are several different equipment and application and within which also the distinction between *lighting sources* and *containing products* is extremely relevant. Similarly, also the *Refrigerating appliances with direct sale function* category contains several different products and

³³ https://www.newenergylabel.eu/sites/default/files/pdf-blocco-materiale/FAQ%20manufacturers_v3_0109.pdf



market actors were often not completely sure about the energy labelling requirements to be meet.

Looking at the FAQ, it is also evident that the requirement related to the label format and sizes generated several doubts. In the case of lighting sources, it has been highlighted the need of more flexibility on label format, considering that for this specific products energy label has to be printed on the packaging and lighting products come in multiple shapes and sizes. According to retailers' feedback, the label format was an issue also for displays: the Delegated Regulation 2019/2013 mentions that *"for electronic displays with a size of the diagonal of the visible area less than 127 cm (50 inches), the label can be printed scaled down, but not less than 60% of its normal size"*, a new indication not mentioned in the previous energy label regulation. Thus, initially suppliers were still providing to retailers large normal sized label also for small products, because they were not aware of the possibility of resizing it.

Therefore, **it is recommended to provide additional explanations to market actors on certain pivotal aspects of the new energy labelling system such as timing, graphic characteristics, typology of the products involved in the change**; additionally, during this additional communication effort towards market actors, it is also suggested to particularly stress novelties introduced by the new legislation (as in the case of displays, the possibility of generating the energy label in a smaller format).



Conclusion

This document is the result of the continuous consultation activity performed along the entire duration of the project. Consultations have been carried out to collect market actors' opinions on the implementation of the new energy labelling system and in order to identify its main potentialities and limitation aspects.

According to the feedback received from market actors, it is evident that the energy label itself as well as the new energy labelling systems are important instruments to increase the efficiency of energy-related products and the consumers awareness about environmental matters. However, together with positive aspects, also some limitations have been pointed out.

In this context, possible strategies, which would be beneficial to further improve the directive effectiveness and to overcome its limitations in anticipation of future rescaling processes, have been proposed by the BELT project.

Finally, it is important to underline that this document should be considered as complementary to the findings reported in other BELT project deliverable such as *Deliverable 4.3 Report summarising the findings and the best practices in the retailer worlds*, focused on the retailers' point of view, and *Deliverable 7.2 Report on policy recommendations*, focused on consumers' perspective.