

Brussels, **XXX**
[...](2017) **XXX** draft

COMMISSION DELEGATED REGULATION (EU) .../...

of **XXX**

**supplementing Regulation (EU) 2017/1369 of the European Parliament and of the
Council with regard to energy labelling of household
dishwashers__repealing_ Regulation (EU) No 1059/2010 with regard to energy labelling
of household dishwashers_**

(Text with EEA relevance)

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EXPLANATORY MEMORANDUM

1. CONTEXT OF THE DELEGATED ACT

Grounds for and objectives of the proposal

The Energy Labelling Framework Regulation (EU) 2017/1369¹ establishes a framework for the provision of accurate, relevant and comparable information on the specific energy consumption of energy-related products and other environmental information, and facilitates the customer's choice in favour of products that are more resource efficient.

It is a key instrument of the Union policy for improving the energy and other environmental aspects of products placed on the market or put into service in the European Economic Area (EEA). It is an important instrument for achieving the energy savings objectives for 2020 and 2030, and its implementation is one of the priorities in the commission's Communication on Energy 2020 and Energy Efficiency Plan 2011, being reinforced by the current Ecodesign Working Plan 2016-2019. It is also expected to contribute significantly to the transition towards a more circular economy, as expressed in the Circular Economy action plan 2015². Furthermore, the implementation of the Regulation (EU) No 2017/1369 will contribute to the EU's target of reducing greenhouse gases by at least 20% by 2020 and by 40% by 2030.

Regulation (EU) 1059/2010 sets energy labelling requirements for household dishwashers. The revision clause (Article 7) states that by December 2014 the Commission should revise the regulation in the light of the technological development and in particular assess the verification tolerances set in Annex V.

Dishwashers were included as one of the priority products for revision in the Ecodesign Working Plan 2016-2019. Dishwashers are also among the product groups mentioned in Article 11(5)(b) of Regulation (EU) 2017/1369 for which the Commission should adopt a delegated act to introduce an A to G rescaled label by 2 November 2018. The rescaling exercise will result in the existing range of energy classes of A+++ to G being replaced by a range of A to G.

In accordance with Article 11(8) of Regulation (EU) 2017/1369, no products are expected to fall into energy class A when the rescaled label is introduced, and the estimated time within which a majority of models will fall into that class is at least 10 years.

In order to revise both the Ecodesign and Energy Label regulations, a review study³ was launched in 2014, resulting in a final report published in June 2017. The study included a stakeholder survey, two stakeholder meetings in 2015 and a web-seminar in 2016. It involved approximately 140 stakeholders .

General context

Household dishwashers are widely used in the European Union. It is estimated that on average 44% of the European households are equipped with a household dishwasher (96 million units). The electricity consumption of the dishwashers was estimated at around 31 TWh/year in 2015 and 317 million m³ of water. Unless new measures specifically relating to these

¹ Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU (OJ L 198, 28.7.2017, p. 1).

² Closing the loop - An EU action plan for the Circular Economy". COM(2015) 614 final, Brussels, 2.12.2015

³ Ecodesign and energy label preparatory study on Dishwashers, available at: <http://susproc.jrc.ec.europa.eu/Dishwashers/documents.html>

products are introduced, the total electricity consumption of dishwashers in the EU is expected to reach around 40 TWh/year by 2030, equivalent to around 15 million ton CO_{2eq}.

The energy consumption and emissions related to the usage of dishwashers can be reduced below the level they would reach in a business-as-usual scenario in a cost-effective way.

The main reasons for not realising these saving potentials are the failure of the market to:

- (i) provide a better fit between the standard programme used for testing (optimised by the manufacturers) and the other cleaning programmes actually used by consumers;
- (ii) guide consumers to make informed purchase decisions based on the life cycle cost rather than the purchase cost (asymmetric information) and
- (iii) the lack of incentives for repairing the appliances and for managing properly the products at the end of their use phase.

Potential cost-effective improvements that would benefit the end-user are therefore often not realised.

The objective of the revision of Regulation 1059/2010 on energy labelling for dishwashers is to trigger a change in market conditions and appliances optimisation, without damaging the increasing penetration rate of dishwashers into the EU market experienced during the last years. The aim is also to rescale the label in accordance with Regulation (EU) 2017/1369.

The proposed revision is expected to reduce the total energy consumption of these products each year across the EU, compared to a business-as-usual scenario, by around 1.1 TWh/year, 0.4 Mt CO₂ eq/year and up to 12 million m³/year by 2030. It is also expected to facilitate repair activities and end-of-life treatment by ensuring that the necessary information and spare parts are available. This may be complemented in future by a repairability scoring, which is currently under study.

Existing regulation and standards in EU and third countries

The Energy Labelling Framework Regulation 2017/1369 is an important instrument for achieving the European targets on energy efficiency and the implementation of this working document is a concrete contribution to this process.

Additionally, other ecodesign regulations are of relevance for dishwashers such as the standby and off mode regulation 1275/2008, the ecodesign regulation 801/2013 on networked standby or the low voltage directive 201/35/EC and the electromagnetic compatibility directive 2014/30/EC.

Regarding the legislation set in third countries, many economies around the world (e.g. US, Japan, Australia, China, Brazil or Mexico) have introduced in recent years legislation on these products. The US Department of Energy introduced in 2012 a final rule prescribing the energy conservation standards for dishwashers manufactured on or after 30/05/ 2013; additionally, standard dishwashers may be awarded the Energy Star Label. The revision of this label is foreseen to come into force from 2019 and will include thresholds for slim dishwashers too.

The performance of dishwashers is tested in accordance with standard EN 50242 / EN 60436. Currently, CENELEC is working on the adaptation of the existing measurement standards to fill a number of gaps concerning the identified level of performance between the real washing programme used by consumers and the currently standardised test. This adaptation includes the adoption of a new test load with a higher variety of shapes and materials, the combined assessment procedure for combined cleaning and drying performance, the new reference detergent, test procedures for automatic programmes and the rinsing performance.

The adaptation of the standard is in an advanced stage of development and very likely to be in place by the time of the adoption of the energy labelling delegated act.

2. CONSULTATIONS PRIOR TO THE ADOPTION OF THE ACT

Consultation of interested parties

Methods used, main sectors targeted and general profile of respondents

The Commission consulted interested parties from within and outside the EU, and Member States' experts from the very beginning of the review study for this Regulation. The proposed working documents (energy labelling and ecodesign) are to be discussed in the Ecodesign and Energy Label Consultation Forum set up under Directive 2009/125/EC and Regulation 2017/1369. The Consultation Forum comprises Member States' experts and a balanced representation of interested parties, namely manufacturers, retailers, environmental NGOs and consumer organisations. The Commission will present two working documents proposing the changes to the ecodesign requirements and the energy label for household dishwashers at the Consultation Forum meeting of 22nd November 2017.

All relevant working documents were circulated to the Member States, the European Parliament and interested parties. The working documents for the Consultation Forum will be published in the Commission's CIRCA system, together with comments received in writing from interested parties during the preparatory review. Commission staff also discussed the initiative bilaterally with various interested parties and Member States. The World Trade Organisation was notified of the draft Regulation on [*insert date*], to ensure that no barriers to trade (prohibited under the Technical Barriers to Trade Agreement) would be introduced.

Collection and use of expertise

Relevant scientific fields

Internal and external expertise was mainly gathered through the review study, which was designed to provide technical, environmental and economic analysis.

Methodology used

The technical, environmental and economic analysis of the study followed the structure recommended in the *Methodology for Ecodesign of Energy-related Products*⁴.

Main organisations and experts consulted

The review study was conducted as an open process, with input from interested parties including individual manufacturers, associations of manufacturers, repairers and waste managers, representatives of the national bodies, environmental NGOs and consumer organisations and experts.

Publication of the expert advice

Interim results of the review study and further relevant material were published regularly on the website⁵ created for the study in order that interested parties could consult this information and provide their input promptly. Additionally, all registered stakeholders were invited to provide comments on the published study throughout an information exchange information platform (BATIS).

⁴ http://ec.europa.eu/growth/industry/sustainability/ecodesign_en

⁵ <http://susproc.jrc.ec.europa.eu/Dishwashers/documents.html>

Interested parties were invited to consultation meetings held in June 2015, in November 2015 and in October 2016 to discuss the preliminary results. The written contributions received during the consultation process [and the minutes of the Consultation Forum] meeting are available on the Commission's CIRCA portal.

The review study made a number of recommendations as to the ecodesign and energy label requirements that could be introduced or modified for dishwashers. These were based on the technical, market and economic analysis carried out. The Commission used these recommendations, together with the most recent data available from the industry, as the basis for the proposed revised eco-design and energy label requirements. [The views expressed by the members of the Consultation Forum were addressed during the impact assessment.]

The main results of the review study are the following:

- Energy label classes: some dishwasher models already exceed the highest current energy efficiency class A+++, especially appliances with larger rated capacity and heat pump equipped dishwashers. A rescaling of the energy labelling classes should therefore simplify comparisons for consumers and provide an incentive to manufacturers to continue improving their appliances.
- Water consumption: the water consumption of household dishwashers per cycle and place setting is closely related to the energy consumption and has been reduced significantly during the past years. On the other hand, the consumer survey shows that a large share of households still usually pre-rinse each item, or at least pots, pans and casseroles under the tap which additionally consumes water (and energy, if hot water is used).
- Use of the standard programme: the standard cleaning programme that is used for testing the energy performance of the appliance is used in practice by consumers only to a minor extent (19%) according to the consumer survey. More often, the normal/regular programmes are used (39% altogether) which consume more energy and water than the standard programme. It has to be noted however that the standard (Eco) programme is used more often since the introduction of an obligation in 2012 to clearly mark this programme on the machine and to set it by default. The increased use of the standard (Eco) programme among the consumers underpins the continuation of the selection of this programme for measurement purposes. Moreover, certain aspects of the standard are currently under revision to better reflect the real-life use of dishwashers.
- Programme duration: the standard cleaning programme, whose consumption value is displayed on the energy label and thus influences the purchase decisions of consumers, is designed to improve the energy efficiency, often with the consequence of reducing the cleaning temperature and prolonging the programme duration. This consequence is in contradiction with the usual preference of consumers: the 2015 user survey indicates that the most consumers accept a maximum of 2 to 3 hours whereas there is clear reluctance to use longer programmes (beyond 3 hours). On the other hand, it is observed that the use of the standard (Eco) programme increased recently even though its duration has been stabilised at around 3.5 hours.
- Technical innovation: the results from the review study show that further energy savings could be achieved by technical improvements in fans, automatic door opening, improved sensors, heat exchangers or consumer feedback mechanisms. These options barely influence the life cycle cost. The use of heat pumps leads to energy savings but these do not make up for the initial investment cost over the lifetime of the appliance because consumers often chose other programmes for which the heat-pump does not contribute much to energy savings.

- Resource efficiency: statistics point to an increased proportion of household dishwashers which have to be replaced earlier than the expected average lifetime, especially within the first five years due to a defect. Early device defects may be due in part to inadequate consumer behaviour.

The main result of the review study regarding the particular aspect mentioned in Article 7 of Regulation 1059/2010 is the following:

- Verification tolerances: The revision of the standard for testing the performance of dishwashers includes a round-robin test (also called ring test). The analysis of the round robin test results allowed for a better understanding of the repeatability and reproducibility of the relevant measurement and new thresholds are proposed accordingly.

[In order to assess different policy options that could address the points highlighted above, several scenarios were created. In addition to the ‘business-as-usual’ case (i.e. not introducing any change other than the re-scaling of the energy classes), options include keeping the energy label only and implementing eco-design and rescaling the energy labelling with different stringencies (three scenarios were analysed).

Based on an assessment of the costs and benefits of the three options, the scenario that combines ecodesign requirements with a medium strictness regarding the rescaling of the energy label for dishwashers was chosen as the preferred option.

This option would result in lower overall energy consumption, water consumption and related emissions at no excessive lifecycle costs, as well as material efficiency requirements, which were analysed in parallel in consultation with experts and interested parties.] Implementation of the requirements proposed in the working documents would result in around 1.1 TWh electricity, 0.4 Mt CO₂ eq/year and 12 million m³ of water savings.

The aim of the measures is to address the market failures that have led to the sub-optimal design and low use of dishwasher programmes with improved environmental performance. The measures taken should not discourage the increasing penetration rate of dishwashers into the EU market, which has an overall beneficial effect on energy and water savings. The chosen option best fulfils the requirements of the Ecodesign Directive and those of the revised energy labelling framework Regulation.

The proposed [delegated act] on energy label requirements will have the following results:

- realising the potential for cost-effective improvements of the energy efficiency of dishwashers;
- reducing the use-phase energy consumption and emissions from dishwashers thus reducing the overall effect that these products have on the environment;
- reducing the combined cost of purchase and use for the consumer: consumers may have to pay more for the dishwashers, but they will save on energy costs, resulting in a pay-back time shorter than the lifetime of the product;
- creating a clear legal framework that ensures fair competition;
- improving the competitiveness of industry;
- benefiting employment in the EU;
- harmonising EU requirements for the placing on the market of dishwashers relating to energy efficiency and emissions, thus ensuring the lowest possible administrative burden and cost for businesses;

- avoiding, as far as possible, creating a disproportionate burden or additional costs for manufacturers, by providing for transitional periods that take into account redesign cycles, the pace of innovation and the return on investment.

3. LEGAL ELEMENTS OF THE DELEGATED ACT

3.1. Summary of the proposed action for Energy Label Regulation

1. Definition of the scope of the proposed Regulations

The working document establishes energy label requirements for the placing on the market of electric mains-operated household dishwashers, and electric mains-operated household dishwashers that can also be powered by batteries, including built-in household dishwashers.

2. Information on the label

The proposed Regulation includes the following changes:

- (1) Rescaled label introducing A to G classes in accordance with Regulation 2017/1369;
- (2) Weighted energy consumption (E_c) in kWh per cycle;
- (3) Weighted water consumption (W_c) in liters per cycle;
- (4) Time programme in hh:mm;
- (5) Airborne acoustic noise emission classes;
- (6) Clear indication that the values refer to only the ECO programme.

3.2. Measurements and calculations

Measurements and calculations of the relevant product parameters should be performed using methods that are reliable, accurate and reproducible. Manufacturers may apply the measurement and calculation methods and harmonised standards established in accordance with Article 13 of Regulation (EU) 2017/1369 as soon as they are made available and their references are published for that purpose in the *Official Journal of the European Union*. These methods are developed specifically so as to be reliable, accurate and reproducible. Requirements for calculation and measurement methods are laid down in Annex VII of the working document for the energy label regulation.

CENELEC should adapt the existing measurement standards that would provide proper measurement methods for all household dishwashers covered by the scope of the proposed measure.

3.5. Verification procedure for market surveillance purposes

When performing the market surveillance checks referred to in Article 8 of Regulation (EU) 2017/1369, the authorities of the Member States shall apply the verification procedure for the requirements set out in Annex IX of the revised EU Energy label regulation for household dishwashers.

The verification tolerances set out in this Annex relate only to the verification of the measured parameters by Member States authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation

3.6. Date for evaluation and possible revision

The revised Regulation is to be reviewed no later than five years after its entry into force.

The main issues for a possible revision are:

- energy and water consumption;
- changes in the user behaviour increasing the use of most-efficient programmes;
- assessing if further requirements on increasing material efficiency and durability of the products, including a possible scoring on reparability, can be applied.

DRAFT

COMMISSION DELEGATED REGULATION (EU) .../...

of XXX

supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of household dishwashers

**repealing
Regulation (EU) No 1059/2010 with regard to energy labelling of household dishwashers**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling⁶ and repealing Directive 2010/30/EU and in particular Articles 11 and 16 thereof,

Whereas:

- (1) Regulation (EU) 2017/1369 empowers the Commission to adopt delegated acts as regards the labelling or rescaling of the labelling of products groups representing significant potential for energy savings and, where relevant, other resources.
- (2) Provisions on the energy labelling of household dishwashers were established by Commission Delegated Regulation (EU) No 1059/2010 of 28 September 2010 supplementing Directive 2010/30/EU⁷.
- (3) Dishwashers are among the product groups mentioned in Article 11(5)(b) of Regulation (EU) 2017/1369 for which the Commission should adopt a delegated act to introduce an A to G rescaled label.
- (4) Regulation 1059/2010/EU contains a review clause in Article 7 requiring the Commission to review the regulation in the light of technological progress.
- (5) The Commission has reviewed Regulation 1059/2010/EU and analysed technical, environmental and economic aspects of household dishwashers as well as the real-life user behaviour. The review was undertaken in close cooperation with stakeholders and interested parties from the Union and third countries. The results of the review were made public and presented to the Consultation Forum established by Article 14 of Regulation (EU) 2017/1369.

⁶ OJ L 198, 28.07.2017, p.1.

⁷ OJ L 314, 30.11.2010, p. 1.

- (6) The review concluded that there was a need for the introduction of revised energy labelling requirements for household dishwashers.
- (7) Non-household dishwashers have distinct characteristics and uses and should therefore be exempted for the scope of this regulation.
- (8) The main environmental aspects of household dishwashers, identified as significant for the purposes of this Regulation, are energy and water consumption in the use phase.
- (9) The review has shown that the electricity and water consumption of products subject to this Regulation can be further reduced by implementing energy label measures to ensure the dynamic incentives for suppliers to further improve the energy and environmental efficiency of the household dishwashers and to accelerate the market transformation towards more efficient technologies.
- (10) [The Commission has consulted the experts designated by each Member State in the Committee established by Article 18 of Regulation (EU) 2017/1369 and in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.]
- (11) Regulation 1059/2010 should be repealed and new provisions should be laid down by this Regulation.

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter and scope

1. This Regulation establishes requirements for the labelling of, and the provision of supplementary product information on, electric mains-operated household dishwashers and electric mains-operated household dishwashers that can also be powered by batteries, including built-in household dishwashers.
2. This Regulation shall not apply to non-household dishwashers.

Article 2

Definitions

In addition to the definitions laid down in Article 2 of Regulation (EU) 2017/1369 and the definitions laid down in Annex I of this Regulation, the following definitions shall apply for the purpose of this Regulation:

- (1) 'household dishwasher' means a machine which cleans, rinses, and dries dishware, glassware, cutlery and cooking utensils by chemical, mechanical, thermal, and electric means, which may or may not have a specific drying operation at the end of the programme and which is designed in a way principally intended for domestic use complying with the Low Voltage Directive 2014/35/EU as stated by the manufacturer in the Declaration of Conformity (DoC);
- (2) 'built-in household dishwasher' means a household dishwasher intended to be installed in a cabinet, a prepared recess in a wall or a similar location, requiring furniture finishing;

- (3) 'non-household dishwasher' means a dishwasher used in an environment other than in an individual household or not complying with any other aspect of the definition of a household dishwasher;
- (4) 'programme' means a series of operations that are pre-defined and are declared as suitable by the supplier for specified levels of soil or type of load, or both, and together form a complete cycle;
- (5) 'cycle' means a complete cleaning, rinsing, and drying process, as defined for the selected programme;
- (6) 'point of sale' means a location where household dishwashers are displayed or offered for sale, hire or hire-purchase.

Article 3

Obligations of suppliers

1. In addition to the obligations of suppliers laid down in Regulation (EU) 2017/1369, suppliers shall ensure that:
 - (a) each household dishwasher is supplied with a printed label in the format as set out in Annex IV;
 - (b) the parameters of the product information sheet, as set out in Annex V, are entered into the product database;
 - (c) if requested by the dealer, the product information sheet shall be made available in printed form;
 - (d) the content of the technical documentation uploaded into the product database is according to Annex VI;
 - (e) any visual advertisement for a specific model of household dishwasher contains the energy efficiency class and the range of efficiency classes available on the label in accordance with Annex X;
 - (f) any technical promotional material concerning a specific model of household dishwasher which describes its specific technical parameters includes the energy efficiency class of that model and the range of efficiency classes available on the label, in accordance with Annex X;
 - (g) an electronic label in the format and containing the information as set out in Annex VIII shall be made available to dealers for each household dishwasher model;
 - (h) an electronic product information sheet as set out in Annex VIII is made available to dealers for each household dishwasher model;
 - (i) products are not placed on the market that have been designed so that a model's performance is automatically altered in test conditions with the objective of reaching a more favourable level for any of the parameters specified in this Regulation or included in the documentation provided with the product.
2. The energy efficiency class shall be based on the Energy Efficiency Index calculated in accordance with Annex III.

Article 4

Obligations of dealers

In addition to the obligations of dealers laid down in Regulation (EU) 2017/1369, dealers shall ensure that:

- (a) each household dishwasher, at the point of sale, bears the label provided by suppliers in accordance with Article 3(a) displayed on the outside of the front or top of the household dishwasher, in such a way as to be clearly visible;
- (b) the label and product information sheet are provided in the case of distance selling in accordance with Annexes VII and VIII;
- (c) any visual advertisement for a specific model of household dishwasher contains the energy efficiency class and the range of efficiency classes available on the label, in accordance with Annex X;
- (d) any technical promotional material concerning a specific model of household dishwasher which describes its specific technical parameters includes the energy efficiency class of that model and the range of efficiency classes available on the label, in accordance with Annex X.

Article 5

Measurement methods

The information to be provided pursuant to Articles 3 and 4 shall be obtained by reliable, accurate and reproducible measurement and calculation methods, which take into account the recognised state-of-the-art measurement and calculation methods, as set out in Annex III.

Article 6

Verification procedure for market surveillance purposes

Member States shall apply the procedure laid down in Annex IX when assessing the conformity of the declared energy efficiency class, water consumption, time duration, acoustic airborne noise emissions and energy consumption and duration of low power modes.

Article 7

Revision

The Commission shall review this Regulation in the light of technological progress and present the results of this review to the Consultation Forum no later than five years after its entry into force. The review shall in particular assess if the improvement potential with regard to energy during the use phase and environmental performance of household dishwashers has been fully exploited by realising changes of user behaviour towards increased purchase of the most energy and resource efficient appliances and the usage of the most energy and resource efficient programmes and if a reparability scoring system in the label would be feasible and beneficial.

In addition, the Commission shall review the label to rescale it when the requirements of Article 11 of the Regulation (EU) 2017/1369 are met.

Article 8

Repeal

Regulation 1059/2010 is repealed as of the day of entry into force of this Regulation.

Article 9

Entry into force and application

1. This Regulation shall enter into force on the 20th day following its publication in the Official Journal of the European Union.
2. It shall apply from XXX.
3. The obligation in Article 3(1)(a) and (b) shall apply four months before XXX.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, [date].

For the Commission
Jean-Claude JUNCKER
The President