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PART 2/2

## EXPLANATORY MEMORANDUM

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

of **XXX**

**implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household tumble dryers repealing Regulation (EU) No 932/2012 with regard to ecodesign requirements for household tumble driers, amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment**

*This draft has not been adopted or endorsed by the European Commission. Any views expressed are the preliminary views of the Commission services and may not in any circumstances be regarded as stating an official position of the Commission.*

# EXPLANATORY MEMORANDUM

accompanying

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### 1. CONTEXT OF THE PROPOSAL

#### • Reasons for and objectives of the proposal

The EU has longstanding objectives to increase energy efficiency and to reduce its greenhouse gas emissions. These go along with other objectives to reduce its environmental impacts. In December 2019, the Commission presented the European Green Deal<sup>1</sup> to strengthen these objectives and as the cornerstone of its strategy to fulfil the United Nation's 2030 Agenda for Sustainable Development<sup>2</sup>. In September 2020, it presented a Climate Target Plan (CTP) for 2030<sup>3</sup>, showing the need for a higher contribution of energy efficiency and renewable energy to achieve a net 55% GHG emission reduction most cost-effectively, in line with the Paris Agreement. The European Parliament and Council subsequently agreed to achieve this level of reduction in GHG emissions. The Commission followed this by adopting the EU "Fit for 55" package<sup>4</sup> aiming to achieve the necessary cut in GHG emissions.

One pillar of the CTP and subsequently the 'Fit for 55' package is energy efficiency. Ecodesign measures phase-out the worst performing appliances from the market by setting minimum energy efficiency requirements below which no appliance can be placed on the market after the date of application. Energy labelling complements ecodesign requirements by providing accurate, relevant and comparable information that facilitates the customer's choice in favour of products which consume less energy.

The review study<sup>5</sup> explains that the regulations currently in force on ecodesign and energy labelling will still permit less efficient tumble dryers to keep a significant share of sales and stock over the next two decades, limiting the reduction of energy consumption and greenhouse gas emissions. The objective of the proposal is therefore to capture further cost-efficient in-use energy savings from tumble dryers. This will be achieved by the parallel adoption of two separate legal acts, an implementing act on ecodesign measures (henceforth

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<sup>1</sup> [The European Green Deal, COM\(2019\) 640 final.](#)

<sup>2</sup> [Transforming our world: the 2030 Agenda for Sustainable Development.](#)

<sup>3</sup> Stepping up Europe's 2030 climate ambition. Investing in a climate-neutral future for the benefit of our people (COM/2020/562 final) .

<sup>4</sup> ['Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality, COM\(2021\) 550 final.](#)

<sup>5</sup> Viegand Maagøe A/S, Review study on household tumble driers, Final report for EC DG ENER, June 2019.

“the implementing act”) and a delegated act on energy labelling measures (henceforth “the delegated act”). This Explanatory Memorandum is about the measures contained in the Implementing Act, although due to the interplay and complementarity between ecodesign and energy labelling both aspects will be explained along with each other in some of the sections.

This initiative is not a REFIT initiative.

- **Consistency with existing provisions in the policy area**

The proposal for an implementing act is consistent with its legal basis, Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products<sup>6</sup> (henceforth “the Ecodesign Framework Directive”), and in particular with its Article 15(2).

The measures proposed in the implementing act are also consistent with Article 15(5) of the Ecodesign Framework Directive, as they:

- Do not have negative impacts on the functionality of the products from the perspective of the user.
- Health, safety and environment are not adversely affected.
- There are no negative impacts on consumers as regards affordability and life-cycle costs.
- There are no negative impacts on industry competitiveness.
- There is no imposition of proprietary technology on manufacturers.
- There is no excessive additional administrative burden on manufacturers.

- **Consistency with other Union policies**

The Implementing act is consistent with the energy and environmental EU policy goals set out in the Green Deal by contributing to the EU’s climate ambition for 2030 and 2050.

## **2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY**

- **Legal basis**

Articles 114 and 194 of the Treaty on the Functioning of the European Union (TFEU) are the legal base for measures related to the functioning of the internal market and therefore constitute the legal base for the Ecodesign Framework Directive and their implementing acts. An explanation about why ecodesign measures fall in the scope of internal market is provided in the section about subsidiarity.

In addition, Article 15(2) of the Ecodesign Framework Directive lays down a set of criteria to identify energy-related products that may be subject to ecodesign measures. In the view of those criteria tumble dryers are eligible on the basis of the potential energy savings that can still be achieved through the introduction of additional cost-effective energy savings.

- **Subsidiarity (for non-exclusive competence)**

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<sup>6</sup> OJ L 285, 31.10.2009, p. 10.

Without harmonised EU requirements on tumble dryers, Member States might consider it necessary to lay down requirements at national level. Diverse national approaches with respect to ecodesign would be an obstacle for the internal market, because products would have to be adapted to diverging national rules, thus risking higher compliance costs for the industry and higher prices for consumers. Those existing harmonised EU requirements must now be updated to technological progress to ensure future relevance of the legislation.

- **Proportionality**

The implementing act sets out an updated energy efficiency threshold so that tumble dryers with energy efficiencies worse than the threshold cannot be placed on the market. The threshold will not require the development of new technologies but will make manufacturers to replace their models based on the obsolete heating element and air-vented technologies by models based on the more efficient (and already widely adopted) heat pump technology. Only heating element, air-vented and the worse performing heat pump tumble dryers will be phased-out. Heat pump tumble dryers have been placed on the market for over a decade and are a mature technology. The threshold is therefore coherent with the state-of-the-play of technology and does not go beyond what is necessary to the main objective of reducing energy consumption from tumble dryers. As indicated in section 1, this approach is consistent with the Better Regulation policy.

- **Choice of the instrument**

The instrument is an implementing act, as established in Article 15(1) of the Ecodesign Framework Directive.

### **3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS**

- **Ex-post evaluations/fitness checks of existing legislation**

The Commission carried out a review of the current legislative framework on tumble dryers, which consists of Regulation (EU) No 392/2012<sup>7</sup> on energy labelling and Regulation (EU) 932/2012<sup>8</sup> on ecodesign, which was finished in May 2019. The review indicated that the legislation in force had met their objectives and achieved energy savings, in spite of these savings being smaller than expected because of a lower penetration rate of tumble dryers in EU households than initially forecasted.

The review concluded that further energy savings could be achieved by revising the requirements and updating the calculation methods, and also via the introduction of resource efficiency requirements according to the Circular Economy Action Plan. This conclusion was based on both a market analysis and a technological assessment of current tumble dryer technologies and their potential for improvement.

The market analysis estimated a sustained growth of the penetration rate of tumble dryers in the EU reaching 28,3% by 2030, led by an increased market share of heat pump tumble

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<sup>7</sup> Commission Delegated Regulation (EU) No 392/2012 of 1 March 2012 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of household tumble driers (OJ L 123, 9.5.2012, p. 1).

<sup>8</sup> Commission Regulation (EU) No 932/2012 of 3 October 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household tumble driers (OJ L 278, 12.10.2012, p.1).

dryers. The technological assessment outlined various technologies and policy scenarios for energy-efficiency improvement that would not entail a significant increase of compliance costs. The review study compared then the energy savings from the different alternatives and concluded that switching to heat pump technology by setting more stringent energy efficient thresholds and by rescaling the energy label according to the expected technological progress would lead to the biggest potential for energy savings. This conclusion plus the elements on circular economy have been the main basis for the options developed later in the impact assessment.

- **Stakeholder consultations**

The review was launched in October 2017 and was developed in an open process with inputs from relevant stakeholders including manufacturers and their associations, environmental NGOs, consumer organisations and Member States. During the study, two open stakeholder meetings were organised at the Commission premises in Brussels on 26 June 2018 and 4 December 2018. Further, a dedicated open public website was set up for the publication of relevant material from the review.

In addition, two Ecodesign and Energy Labelling Consultation Forum meetings were organised by the Commission to discuss the main conclusions of the review study and the impact assessment. The Consultation Forum is a wider group of discussion, consisting of a balanced representation of Member State industry associations and NGOs representatives, in line with Article 18 of the Ecodesign Framework Directive. The minutes, working documents and stakeholder comments received in writing before and after the Consultation Forum meetings can be found on CIRCABC<sup>9</sup>

The views from stakeholders and Member States have been widely incorporated to the draft implementing act (and also to the delegated act) and, where not possible to conciliate all points of view, reasonable compromises have been reached with industry, Member States and representatives of consumers and other organisations.

- **Collection and use of expertise**

The review study has been drafted by the consultant Viegand Maagoe. Sales data used in the review study have been purchased to the data provider GfK. The stock of tumble dryers has been derived from the sales, applying and average lifetime for each product family. Average lifetime has been extensively discussed with APPLiA, the main association representing the appliance industry at EU level.

The EPREL database, which gathers information about all the models placed on the market since 2010, has been consulted for confirmation of data on energy efficiency and condensation efficiency per model.

Electricity prices and carbon intensity used for the modelling of the different policy options have been obtained from the EU Reference Scenario 2020. Those electricity prices have nevertheless proved to be unrealistic in the context of the current crisis with escalating energy prices. For this reason, and due to the unavailability of scenarios incorporating those energy prices, the Impact Assessment includes a preliminary analysis with the electricity price of the second semester of 2021, which is higher than the energy prices of the EU Reference Scenario 2020 and it was also the latest average price for the EU officially available at the time of drafting the impact assessment.

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<sup>9</sup> [ecodesign - Library \(europa.eu\)](https://ecodesign-library.europa.eu).

- **Impact assessments**

Both the implementing act and the delegated act are supported by an impact assessment evaluating jointly the requirements on ecodesign and energy labelling to be applied to tumble dryers. The impact assessment received a positive opinion from the Regulatory Scrutiny Board on 25/5/2022. A call for evidence<sup>10</sup> was published on 21 January 2022.

The impact assessment examined the following policy alternatives:

***Policy option 1. Business as usual (BAU)***

No legislative action taken.

***Policy option 2 (PO2). Lenient option: energy labelling measures only***

Rescaling the energy label to incentivise manufacturers to develop energy-efficient appliances. This will be achieved by setting an empty A class which is 10% better than the current best-in-class model.

***Policy option 3 (PO3). Ambitious option: new energy efficiency limits***

Setting a more stringent energy efficiency threshold, so that only tumble dryers with EEI (Energy Efficiency Index)  $\leq 85$  are allowed to remain in the market. Figure 2 shows the level of ambition of PO3. The current EEI threshold would correspond to class F of the rescaled energy label, whereas the proposed EEI would be aligned with the limit between classes C and D.

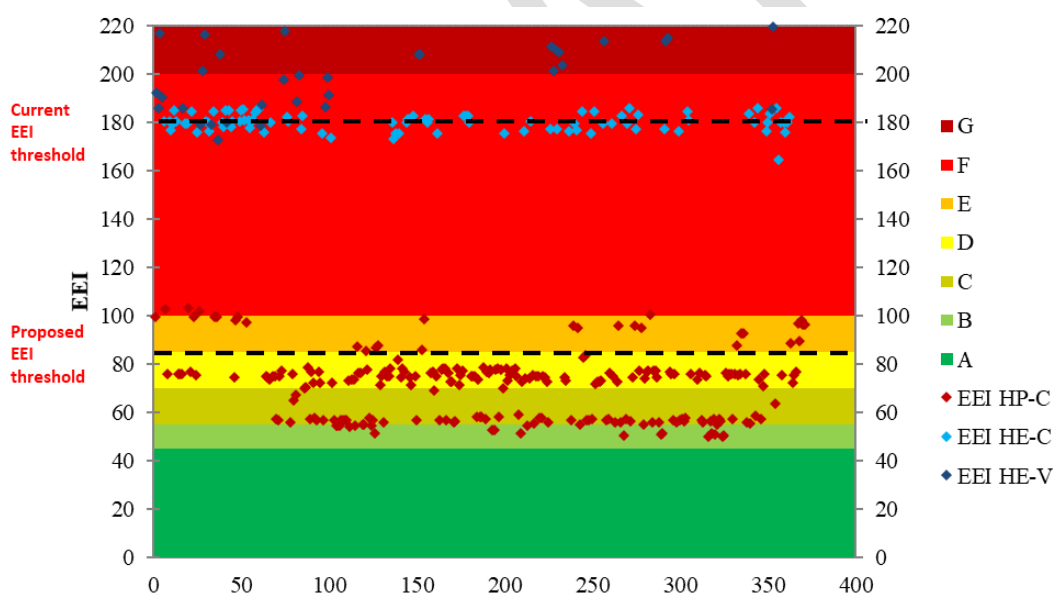


Figure 1. Comparison current and proposed EEI limit

***Policy option 4 (PO4). Circular economy***

Increasing the lifetime of the appliances by making mandatory the availability fo spare parts and by mandating access to repair and maintenance information. Extension of the lifetime of tumble dryers will reduce embedded energy, namely the energy used for manufacturing the products, by reducing sales of new appliances thus slowing down the pace of production.

<sup>10</sup> [Ecodesign and energy labelling requirements for household tumble dryers \[review\] \(europa.eu\)](https://ec.europa.eu/eurobarometer/surveys/detail/2444).

Since PO2 is a mandatory measure from the Energy Labelling Framework Regulation, all the combination of policy options evaluated in the impact assessment include PO2. The impact assessment has therefore examined the following combination of policy options: PO2, PO2+PO3, PO2+PO4 and PO2+PO3+PO4. Effectiveness and efficiency of the measures have been assessed on the basis of the following impacts: environmental impacts (energy consumption, greenhouse gas emissions, material used, waste generation and water consumption), economic impacts (business turnover, compliance costs, administrative costs), social impacts (employment, fundamental rights), competitiveness and geographical distribution of the impacts. Table 1 gives a summary of the main impacts.

	Cumulative energy saved					Cumulative material saved				
	In-use (Twh)		In-use and embedded (Twh)		Score	Fuel saved (ktons)		Material saved for manufacturing (ktons)		Score
	2025-2030	2025-2040	2025-2030	2025-2040		2025-2030	2025-2040	2025-2030	2025-2040	
PO2	0,96	3,60	0,90	3,51	+	222,8	818,5	-106,9	-472,1	Neutral
PO2+PO3	2,11	12,89	1,93	12,49	++	488,9	2.915,6	-345,4	-2.133,6	Neutral
PO2+PO4	0,96	3,60	0,90	6,39	+	222,8	818,5	-105,7	14.952,6	+
PO2+PO3+PO4	2,11	12,57	1,93	15,01	+++	488,8	2.843,1	-343,0	13.105,4	+

Table 1. Effectiveness of the different measures

Table 1 shows that PO2+PO3+PO4 is the combination that delivers the largest total energy savings (in-use + embedded). PO2+PO3+PO4 is also the option that allows to save the largest amount of material savings, summing the fuel saved and the reduction of material used for manufacturing.

On the basis of the analysis, PO2+PO3+PO4 is the best option. Table 2 shows the total benefits from this policy option.

Summary of benefits for the preferred policy option PO2+PO3+PO4	2025-2030	2025-2040
Cumulative in-use energy savings (Twh)	2,1	12,6
Cumulative total energy savings (Twh), including both in-use and embedded energy	1,9	15,0
Cumulative fuel saved (ktons)	489	2.843
Cumulative material saved (ktons)	-343	13.105
Cumulative GHG emissions savings (Mton CO <sub>2</sub> eq)	-0,3	1,7
Cumulative additional manufacturer turnover, including repair turnover (M€)	455	1.077
Cumulative decreased consumer expenditure (M€)	-464	2.826
Cumulative direct employment (jobs)	4.195	-11.716
Cumulative net (direct+indirect) employment (jobs)	6.003	9.303
Cumulative water saved (Mlitres)	-270	1.673
Cumulative waste saved (tons)	35.295	186.058
Payback period (years)	12,1	

Table 2. Summary of cumulative values for the preferred policy option (PO2+PO3+PO4)

- **Regulatory fitness and simplification**

The initiative will apply to the whole industry of tumble dryers, with no distinction between big companies and SMEs. The impact of the initiative on companies of any kind is overall positive, since the turnover increases for both manufacturers and repairers. In particular, the repair sector is 100% integrated by SMEs. An SME test is presented in Annex 10 of the impact assessment, which concludes that there are no negative effects on SMEs.

Further, a number of the measures proposed in this impact assessment will reduce burden for the industry, in particular:

- the number of test runs for the calculation of the condensation efficiency will be aligned to the the harmonized standard EN 61121:2013<sup>11</sup>, thus eliminating ambiguity and legal uncertainty.
- legislative redundancies as regards low power modes are avoided by removing tumble dryers from the scope of Commission Regulation (EC) No 1275/2008 (therein after the horizontal standby Regulation)<sup>12</sup> and adding the corresponding requirements to the implementing act.
- **Fundamental rights**

The policy options under assessment do not entail any negative impact on fundamental rights as laid down in the Charter of Fundamental Rights of the European Union<sup>13</sup>.

#### 4. BUDGETARY IMPLICATIONS

The implementing act does not have any budgetary implication neither for Commission nor for Member States.

#### 5. OTHER ELEMENTS

- **Implementation plans and monitoring, evaluation and reporting arrangements**

The main tool to verify compliance with ecodesign (and energy labelling) requirements is the market surveillance carried out by Member States national authorities. Homogeneity of market surveillance actions at EU level is guaranteed by the Administrative Cooperation Groups, under which market surveillance authorities (MSAs) and the Commission meet several times per year with the objective to ensure efficient, comprehensive and consistent market surveillance across the Union. In addition, common surveillance activities are supported by the Commission through EEPLIANT3, a Horizon 2020-funded project which runs from June 2019 until November 2023 and includes a work package on tumble dryers<sup>14</sup>.

Finally, the implementing act will include a review clause that will mandate, inter alia, the evaluation of the effectiveness and regulatory efficiency and relevance of the revised regulations five years after their entry into force. The results of this evaluation, which will involve the acquisition of independent market data as well as extensive stakeholder consultation, should be presented to stakeholders and Member States in the Ecodesign and Energy Labelling Consultation Forum.

- **Explanatory documents (for directives)**

The proposal is not a directive and therefore does not require explanatory documents on transposition.

- **Detailed explanation of the specific provisions of the proposal**

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<sup>11</sup> In the current regulation the first test run is eliminated for calculation of the condensation efficiency.

<sup>12</sup> 17 December 2008 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment (OJ L 339, 18.12.2008, p. 45).

<sup>13</sup> Charter of Fundamental Rights of the European Union (OJ L 326, 26.10.2012, p.391).

<sup>14</sup> <https://eepliant.eu/index.php/new-products/tumble-dryers>



The implementing act consists of a main part and its annexes. The main part of the implementing act introduces the following modifications with respect to Regulation (EU) No 932/2012:

- *Article 1. Subject matter and scope:* tumble dryers powered by batteries and multi-drum tumble dryers are expressly included in the scope of the implementing act. The definition of built-in tumble dryer is improved to make clear that tumble dryers not encased between pannels cannot be considered as buit-in appliances. Additionally, tumble dryers powered by batteries that can be connected to the mains through an AC/DC converter sold separately are excluded from the scope, as these appliances are normally used in motorhomes rather than in dwellings.
- *Article 6. Circumvention:* this article forbids the incorporation to the appliances of any kind of software or hardware allowing the tumble dryers to recognise when they are being tested ant to modify their behaviour accordingly. It also bans the provision of any kind of information slanting the result of the tests, as well as the placing on the market of products designed to alter their behaviour after their put into service.
- *Article 7. Software updates:* this article forbids any update to the tumble dryer worsening the ecodesign parameters without the express consent of the user. In no case the modification of those parameters will make them worse than the thresholds set out in the Implementing Act.
- *Article 10. Amendment to Regulation (EU) No 1275/2008:* tumble dryers are excluded from the scope of the horizontal standby Regulation, as the requirements on low power modes will be now lied down in the implementing act.
- *Article 12. Transitional measures:* manufacturers must develop an eco programme, which must be displayed on the display panel of the appliance as ‘eco’. Since it is impossible for manufacturers to fit from one day to another the new panels in all tumble dryers placed on the market, the implementing act allows manufacturers to place on the market tumble dryers featuring the new panels during the period between the date of entry into force of the implementing act and the date of entry into application (1 July 2025), even if the requirements in Regulation (EU) No 932/2012 still apply during that period.
- *Article 13. Transitional compliance equivalence:* gives the possibility to comply only with the new ecodesign requirements for new models first placed on the market four months in advance of the date of application, even if Regulation (EU) No 932/2012 has not been repealed yet and still applies.
- *Article 14. Entry into force and application:* there is a transitional period for the application of the provisions. However, the new Articles 6 and 7 will apply from the date of entry into force of the implementing act.

As far as the annexes:

### ***Annex I. Definitions***

A new definition of “guarantee” has been inserted to follow the same approach as the Regulation on ecodesign for washing machines<sup>15</sup>.

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<sup>15</sup> Commission Regulation (EU) 2019/2023 laying down ecodesign requirements for household washing machines and household washer-dryers pursuant to Directive 2009/125/EC of the European Parliament

## ***Annex II. Ecodesign requirements***

The EEI shall not be lower than 85 and the condensation efficiency not lower than 80%. The implementing act includes for the first time thresholds on low power modes, which are the same as those in the horizontal standby Regulation.

In addition, resource efficiency requirements are set out for the first time, in relation to a minimum list of spare parts to be available during a minimum period of time, and to the mandatory access to repair and maintenance information to competent and insured professional repairers in exchange of a reasonable and proportionate fee, during the period of availability of spare parts.

Also information requirements on appliances to display the type of refrigerant gas used, and dismantling requirements for tumble dryers so that the materials and components referred to in Annex VII to the WEEE Directive <sup>16</sup> can be removed from the appliance with the use of commonly available tools are foreseen.

Finally, user and installer instructions must include specific information related to the proper maintenance of the equipment and to the reduction of energy consumption.

## ***Annex III. Measurement methods and calculations***

The measurement methods and calculations of energy efficiency and condensation efficiency have been adapted to the change of weighing between full and partial loads and the delivery of the results per cycle instead of per year, as commented above.

## ***Annex IV. Verification procedure for the purpose of market surveillance***

The principles applicable to the verification procedure remain, although there is a new paragraph explaining the procedure to follow when no interpretable result has been produced due to the invalidity of the test.

## ***Annexes V. Benchmarks***

Benchmarks for Best Available Technology have been updated according to the state-of-play of technology.

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and of the Council, amending Commission Regulation (EC) No 1275/2008 and repealing Commission Regulation (EU) No 1015/2010 (OJ L 315, 5.12.2019, p. 285).

<sup>16</sup> Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste and electronic equipment (WEEE) (OJ L 197, 24.7.2012, p. 38).